DOCUMENT TRANSMITTAL SCHEDULE

gassman development perspectives
planning | environment | landscape| engineering | survey
T: 07 3807 3333 | F: 07 3287 5461 | www.gassman.com.au
76 Business Street, Yatala QLD| PO Box 392, Beenleigh 4207

To: **City of Gold Coast Council**

Address : **PO Box 5042**
GCMC 9726

Attention: **Development Assessment**

PROJECT: **OPERATIONAL WORKS APPLICATION FOR CIVIL WORKS STAGE 1 VANTAGE YATALA (INDUSTRIAL DEVELOPMENT)** **Job No:** **5941**

The documents listed below are issued for your use as indicated in the "Issued for" section.
All revisions supersede any revision of the same document.

DATE OF ISSUE												
	Day	01	26	12	02	02	10	11	**11**			
	Month	05	05	06	09	09	09	09	**09**			
	Year	20	20	20	20	20	20	20	**20**			

Distribution:

Attention	Issued To											
City of Gold Coast Council	Development Assesment	1xPDF		1xPDF	1xPDF				**1xPDF**			
FRASERS PROPERTY (AUSTRALIA) PTY. LTD	Commercial and Industrial		1xPDF			1xPDF	1xPDF	1xPDF				

Method:

☐ Our Mess. ☐ Courier ☑ Email
☐ Your Mess. ☐ Mail
☐ Hand ☐ FTP Site ☐ Aconex

The information in any Gassman Development Perspectives generated messages together with any attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any form of review, disclosure, modification, distribution and/or publication of this message is prohibited. If you have received this message in error, you are asked to inform the sender as quickly as possible and delete this message and any copies of this message from your computer and/or your computer system network.In relation to computer viruses, any loss or damage incurred by using this material is not the responsibility of the sender. The sending company's entire liability will be limited to resupplying the material. No warranty is made that this material is free from computer virus or other defect. Please consider the environment before printing any electronic media received from Gassman Development Perspectives

Issued for:

A	**A**	**A**	**A**	**A**	**T**	**T**	**A**			

P - Preliminary **C** - Construction **T** -Tender
A - Approval **I** - Information **O** - Other

Issued Media

EP	**EP**	**EP**	**EP**	**EP**	**EP**	**EP**	**EP**			

D - Disk **P** Print **CP** -CAD&PDF
ED - DWG/DXF **EP** - PDF

Drg/Doc No.	Title	Revision Issued										
5941 ENG OPW1 001	DRAWING INDEX AND LOCALITY PLAN	A	A	B	C	C	-	-	**D**			
5941 ENG OPW1 002	GENERAL NOTES SHEET 1 OF 3	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 003	GENERAL NOTES SHEET 2 OF 3	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 003	GENERAL NOTES SHEET 3 OF 3	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 005	LEGEND	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 006	KEY PLAN LAYOUT	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 010	EXISTING SURFACE AND FEATURE PLAN	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 020	EMERI STREET DEMOLITION AND PROTECTION LAYOUT PLAN	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 050	SEDIMENT AND EROSION CONTROL PLAN SHEET 1 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 051	SEDIMENT AND EROSION CONTROL PLAN SHEET 2 OF 6	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 052	SEDIMENT AND EROSION CONTROL PLAN SHEET 3 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 053	SEDIMENT AND EROSION CONTROL PLAN SHEET 4 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 054	SEDIMENT AND EROSION CONTROL PLAN SHEET 5 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 055	SEDIMENT AND EROSION CONTROL PLAN SHEET 6 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 056	CONSTRUCTION PHASE SEDIMENT BASIN 1 LAYOUT	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 057	CONSTRUCTION PHASE SEDIMENT BASIN 1 SECTIONS	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 058	CONSTRUCTION PHASE SEDIMENT BASIN 2 LAYOUT	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 059	CONSTRUCTION PHASE SEDIMENT BASIN 2 SECTIONS	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 060	SEDIMENT AND EROSION TYPICAL DETAILS	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 300	OVERALL SERVICES LAYOUT PLAN SHEET 1 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 301	OVERALL SERVICES LAYOUT PLAN SHEET 2 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 302	OVERALL SERVICES LAYOUT PLAN SHEET 3 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 303	OVERALL SERVICES LAYOUT PLAN SHEET 4 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 400	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 1 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 401	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 2 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 402	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 3 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 403	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 4 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 410	TYPICAL SECTIONS AND DETAILS SHEET 1 OF 3	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 411	TYPICAL SECTIONS AND DETAILS SHEET 2 OF 3	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 412	TYPICAL SECTIONS AND DETAILS SHEET 3 OF 3	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 420	CONTROL LINE LAYOUT PLAN	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 421	ROAD CONTROL LINE SETOUT TABLES SHEET 1 OF 2	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 422	ROAD CONTROL LINE SETOUT TABLES SHEET 2 OF 2	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 430	ROAD LONGITUDINAL SECTION - HOMESTEAD DRIVE SHEET 1 OF 3	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 431	ROAD LONGITUDINAL SECTION - HOMESTEAD DRIVE SHEET 2 OF 3	A	A	B	C	C	-	-	**C**			

DOCUMENT TRANSMITTAL SCHEDULE

gassman development perspectives
planning | environment | landscape| engineering | survey
T: 07 3807 3333 | F: 07 3287 5461 | www.gassman.com.au
76 Business Street, Yatala QLD| PO Box 392, Beenleigh 4207

To: **City of Gold Coast Council**

Address : **PO Box 5042**
GCMC 9726

Attention: **Development Assessment**

PROJECT: **OPERATIONAL WORKS APPLICATION FOR CIVIL WORKS STAGE 1 VANTAGE YATALA (INDUSTRIAL DEVELOPMENT)** **Job No:** **5941**

The documents listed below are issued for your use as indicated in the "Issued for" section.
All revisions supersede any revision of the same document.

DATE OF ISSUE												
	Day	01	26	12	02	02	10	11	**11**			
	Month	05	05	06	09	09	09	09	**09**			
	Year	20	20	20	20	20	20	20	**20**			

Distribution:

Attention	Issued To											
City of Gold Coast Council	Development Assesment	1xPDF		1xPDF	1xPDF				**1xPDF**			
FRASERS PROPERTY (AUSTRALIA) PTY. LTD	Commercial and Industrial		1xPDF			1xPDF	1xPDF	1xPDF				

Method:

☐ Our Mess. ☐ Courier ☑ Email
☐ Your Mess. ☐ Mail
☐ Hand ☐ FTP Site ☐ Aconex

Issued for:

A	A	A	A	A	T	T	A			
P - Preliminary			**C** - Construction			**T** -Tender				
A - Approval			**I** - Information			**O** - Other				

Issued Media

EP	EP	EP	EP	EP	EP	EP	EP			
D - Disk			**P** Print			**CP** -CAD&PDF				
ED - DWG/DXF			**EP** - PDF							

The information in any Gassman Development Perspectives generated messages together with any attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any form of review, disclosure, modification, distribution and/or publication of this message is prohibited. If you have received this message in error, you are asked to inform the sender as quickly as possible and delete this message and any copies of this message from your computer and/or your computer system network.In relation to computer viruses, any loss or damage incurred by using this material is not the responsibility of the sender. The sending company's entire liability will be limited to resupplying the material. No warranty is made that this material is free from computer virus or other defect. Please consider the environment before printing any electronic media received from Gassman Development Perspectives

Drg/Doc No.	Title	Revision Issued										
5941 ENG OPW1 432	ROAD LONGITUDINAL SECTION - HOMESTEAD DRIVE SHEET 3 OF 3	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 433	ROAD LONGITUDINAL SECTION - EASTRIDGE STREET SHEET 1 OF 2	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 434	ROAD LONGITUDINAL SECTION - EASTRIDGE STREET SHEET 2 OF 2	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 435	ROAD LONGITUDINAL SECTION - FAIRWAY STREET SHEET 1 OF 2	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 436	ROAD LONGITUDINAL SECTION - FAIRWAY STREET SHEET 2 OF 2	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 437	ROAD LONGITUDINAL SECTION - EMERI STREET EXTENSION	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 450	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 1 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 451	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 2 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 452	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 3 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 453	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 4 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 454	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 5 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 455	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 6 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 456	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 7 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 457	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 8 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 458	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 9 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 459	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 10 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 460	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 11 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 461	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 12 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 462	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 13 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 463	ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 14 OF 14	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 464	ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 1 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 465	ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 2 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 466	ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 3 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 467	ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 4 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 468	ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 5 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 469	ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 6 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 470	ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 7 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 471	ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 8 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 472	ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 1 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 473	ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 2 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 474	ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 3 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 475	ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 4 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 476	ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 5 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 477	ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 6 OF 6	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 478	ROAD CROSS SECTIONS - EMERI STREET EXTENSION SHEET 1 OF 2	A	A	A	B	B	-	-	**B**			

DOCUMENT TRANSMITTAL SCHEDULE

gassman development perspectives
planning | environment | landscape| engineering | survey
T: 07 3807 3333 | F: 07 3287 5461 | www.gassman.com.au
76 Business Street, Yatala QLD| PO Box 392, Beenleigh 4207

To: **City of Gold Coast Council**

Address : **PO Box 5042**
GCMC 9726

Attention: **Development Assessment**

PROJECT: **OPERATIONAL WORKS APPLICATION FOR CIVIL WORKS STAGE 1 VANTAGE YATALA (INDUSTRIAL DEVELOPMENT)** **Job No:** **5941**

The documents listed below are issued for your use as indicated in the "Issued for" section.
All revisions supersede any revision of the same document.

DATE OF ISSUE												
	Day	01	26	12	02	02	10	11	**11**			
	Month	05	05	06	09	09	09	09	**09**			
	Year	20	20	20	20	20	20	20	**20**			

Distribution:

Attention	Issued To											
City of Gold Coast Council	Development Assesment	1xPDF		1xPDF	1xPDF				**1xPDF**			
FRASERS PROPERTY (AUSTRALIA) PTY. LTD	Commercial and Industrial		1xPDF			1xPDF	1xPDF	1xPDF				

Method:

☐ Our Mess. ☐ Courier ☑ Email
☐ Your Mess. ☐ Mail
☐ Hand ☐ FTP Site ☐ Aconex

The information in any Gassman Development Perspectives generated messages together with any attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any form of review, disclosure, modification, distribution and/or publication of this message is prohibited. If you have received this message in error, you are asked to inform the sender as quickly as possible and delete this message and any copies of this message from your computer and/or your computer system network.In relation to computer viruses, any loss or damage incurred by using this material is not the responsibility of the sender. The sending company's entire liability will be limited to resupplying the material. No warranty is made that this material is free from computer virus or other defect. Please consider the environment before printing any electronic media received from Gassman Development Perspectives

Issued for:

A	A	A	A	A	T	T	A			
P	- Preliminary			**C**	- Construction			**T**	-Tender	
A	- Approval			**I**	- Information			**O**	- Other	

Issued Media

EP	EP	EP	EP	EP	EP	EP	EP			
D	- Disk			**P**	Print			**CP**	-CAD&PDF	
ED	- DWG/DXF			**EP**	- PDF					

Drg/Doc No.	Title	Revision Issued										
5941 ENG OPW1 479	ROAD CROSS SECTIONS - EMERI STREET EXTENSION SHEET 2 OF 2	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 480	KERB ISLAND SETOUT DETAILS SHEET 1 OF 2	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 481	KERB ISLAND SETOUT DETAILS SHEET 2 OF 2	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 490	ROAD INTERSECTION DETAILS SHEET 1 OF 8	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 491	ROAD INTERSECTION DETAILS SHEET 2 OF 8	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 492	ROAD INTERSECTION DETAILS SHEET 3 OF 8	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 493	ROAD INTERSECTION DETAILS SHEET 4 OF 8	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 494	ROAD INTERSECTION DETAILS SHEET 5 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 495	ROAD INTERSECTION DETAILS SHEET 6 OF 8	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 496	ROAD INTERSECTION DETAILS SHEET 7 OF 8	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 497	ROAD INTERSECTION DETAILS SHEET 8 OF 8	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 500	STORMWATER DRAINAGE CATCHMENT PLAN	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 510	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 511	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 512	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 3 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 513	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 4 OF 18	A	A	A	B	B	C	-	**C**			
5941 ENG OPW1 514	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 5 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 515	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 6 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 516	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 7 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 517	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 8 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 518	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 9 OF 18	A	A	A	B	B	C	-	**C**			
5941 ENG OPW1 519	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 10 OF 18	A	A	A	B	B	C	-	**C**			
5941 ENG OPW1 520	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 11 OF 18	A	A	A	B	B	C	-	**C**			
5941 ENG OPW1 521	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 12 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 522	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 13 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 523	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 14 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 524	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 15 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 525	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 16 OF 18	A	A	A	B	B	C	-	**C**			
5941 ENG OPW1 526	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 17 OF 18	A	A	B	C	C	D	-	**D**			
5941 ENG OPW1 527	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 18 OF 18	A	A	B	B	B	C	-	**C**			
5941 ENG OPW1 550	39% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 1 OF 2	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 551	39% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 2 OF 2	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 552	1% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 1 OF 2	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 553	1% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 2 OF 2	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 570	OPERATIONAL PHASE BIORETENTION BASIN SHEET 1 OF 2	A	A	B	C	C	-	-	**C**			

DOCUMENT TRANSMITTAL SCHEDULE

gassman development perspectives
planning | environment | landscape| engineering | survey
T: 07 3807 3333 | F: 07 3287 5461 | www.gassman.com.au
76 Business Street, Yatala QLD| PO Box 392, Beenleigh 4207

To: **City of Gold Coast Council**

Address : **PO Box 5042**
GCMC 9726

Attention: **Development Assessment**

PROJECT: **OPERATIONAL WORKS APPLICATION FOR CIVIL WORKS STAGE 1 VANTAGE YATALA (INDUSTRIAL DEVELOPMENT)** **Job No:** **5941**

The documents listed below are issued for your use as indicated in the "Issued for" section.
All revisions supersede any revision of the same document.

DATE OF ISSUE												
	Day	01	26	12	02	02	10	11	**11**			
	Month	05	05	06	09	09	09	09	**09**			
	Year	20	20	20	20	20	20	20	**20**			

Distribution:

Attention	Issued To											
City of Gold Coast Council	Development Assesment	1xPDF		1xPDF	1xPDF				**1xPDF**			
FRASERS PROPERTY (AUSTRALIA) PTY. LTD	Commercial and Industrial		1xPDF			1xPDF	1xPDF	1xPDF				

Method:

☐ Our Mess. ☐ Courier ☑ Email
☐ Your Mess. ☐ Mail
☐ Hand ☐ FTP Site ☐ Aconex

The information in any Gassman Development Perspectives generated messages together with any attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any form of review, disclosure, modification, distribution and/or publication of this message is prohibited. If you have received this message in error, you are asked to inform the sender as quickly as possible and delete this message and any copies of this message from your computer and/or your computer system network.In relation to computer viruses, any loss or damage incurred by using this material is not the responsibility of the sender. The sending company's entire liability will be limited to resupplying the material. No warranty is made that this material is free from computer virus or other defect. Please consider the environment before printing any electronic media received from Gassman Development Perspectives

Issued for:

A	**A**	**A**	**A**	**A**	**T**	**T**	**A**			

P - Preliminary **C** - Construction **T** -Tender
A - Approval **I** - Information **O** - Other

Issued Media

EP	**EP**	**EP**	**EP**	**EP**	**EP**	**EP**	**EP**			

D - Disk **P** Print **CP** -CAD&PDF
ED - DWG/DXF **EP** - PDF

Drg/Doc No.	Title	Revision Issued										
5941 ENG OPW1 571	OPERATIONAL PHASE BIORETENTION BASIN SHEET 2 OF 2	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 572	OPERATIONAL PHASE BIORETENTION BASIN SETOUT DETAILS	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 600	SEWER RETICULATION LAYOUT PLAN SHEET 1 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 601	SEWER RETICULATION LAYOUT PLAN SHEET 2 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 602	SEWER RETICULATION LAYOUT PLAN SHEET 3 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 603	SEWER RETICULATION LAYOUT PLAN SHEET 4 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 610	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 1 OF 11	A	A	B	C	C	-	D	**D**			
5941 ENG OPW1 611	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 2 OF 11	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 612	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 3 OF 11	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 613	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 4 OF 11	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 614	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 5 OF 11	A	A	B	C	C	-	D	**D**			
5941 ENG OPW1 615	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 6 OF 11	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 616	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 7 OF 11	A	A	B	C	C	-	D	**D**			
5941 ENG OPW1 617	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 8 OF 11	A	A	B	C	C	-	D	**D**			
5941 ENG OPW1 618	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 9 OF 11	A	A	B	C	C	-	D	**D**			
5941 ENG OPW1 619	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 10 OF 11	A	A	B	C	C	-	D	**D**			
5941 ENG OPW1 620	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 11 OF 11	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 700	WATER RETICULATION LAYOUT PLAN SHEET 1 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 701	WATER RETICULATION LAYOUT PLAN SHEET 2 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 702	WATER RETICULATION LAYOUT PLAN SHEET 3 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 703	WATER RETICULATION LAYOUT PLAN SHEET 4 OF 4	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 704	WATER RETICULATION TYPICAL DETAILS	A	A	A	C	C	-	-	**C**			
5941 ENG OPW1 800	LINEMARKING AND SIGNAGE PLAN SHEET 1 OF 5	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 801	LINEMARKING AND SIGNAGE PLAN SHEET 2 OF 5	A	A	A	B	B	-	-	**B**			
5941 ENG OPW1 802	LINEMARKING AND SIGNAGE PLAN SHEET 3 OF 5	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 803	LINEMARKING AND SIGNAGE PLAN SHEET 4 OF 5	A	A	B	C	C	-	-	**C**			
5941 ENG OPW1 804	LINEMARKING AND SIGNAGE PLAN SHEET 5 OF 5	A	A	B	C	C	-	-	**C**			

Please confirm that you have received all documents listed on the Document Register & Transmittal.

I hereby acknowledge receipt of the documents listed above.

Name & Company: _____ Signed: _____ Dated: / /

Project Manager: mitchell@gassman.com.au Sent by: mitchell@gassman.com.au

CIVIL OPERATIONAL WORKS
VANTAGE YATALA - STAGE 1

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

DRAWING INDEX

DRAWING No.	REV No.	DRAWING TITLE
5941 ENG OPWI 001	C	DRAWING INDEX AND LOCALITY PLAN
5941 ENG OPWI 002	B	GENERAL NOTES SHEET 1 OF 3
5941 ENG OPWI 003	B	GENERAL NOTES SHEET 2 OF 3
5941 ENG OPWI 004	B	GENERAL NOTES SHEET 3 OF 3
5941 ENG OPWI 005	B	LEGEND
5941 ENG OPWI 006	B	KEY PLAN LAYOUT
5941 ENG OPWI 010	B	EXISTING SURFACE AND FEATURE PLAN
5941 ENG OPWI 020	B	EMERI STREET DEMOLITION AND PROTECTION LAYOUT PLAN
5941 ENG OPWI 050	C	SEDIMENT AND EROSION CONTROL PLAN SHEET 1 OF 6
5941 ENG OPWI 051	B	SEDIMENT AND EROSION CONTROL PLAN SHEET 2 OF 6
5941 ENG OPWI 052	C	SEDIMENT AND EROSION CONTROL PLAN SHEET 3 OF 6
5941 ENG OPWI 053	C	SEDIMENT AND EROSION CONTROL PLAN SHEET 4 OF 6
5941 ENG OPWI 054	C	SEDIMENT AND EROSION CONTROL PLAN SHEET 5 OF 6
5941 ENG OPWI 055	C	SEDIMENT AND EROSION CONTROL PLAN SHEET 6 OF 6
5941 ENG OPWI 056	C	CONSTRUCTION PHASE SEDIMENT BASIN 1 LAYOUT
5941 ENG OPWI 057	B	CONSTRUCTION PHASE SEDIMENT BASIN 1 SECTIONS
5941 ENG OPWI 058	B	CONSTRUCTION PHASE SEDIMENT BASIN 2 LAYOUT
5941 ENG OPWI 059	B	CONSTRUCTION PHASE SEDIMENT BASIN 2 SECTIONS
5941 ENG OPWI 060	B	SEDIMENT AND EROSION TYPICAL DETAILS
5941 ENG OPWI 300	C	OVERALL SERVICES LAYOUT PLAN SHEET 1 OF 4
5941 ENG OPWI 301	C	OVERALL SERVICES LAYOUT PLAN SHEET 2 OF 4
5941 ENG OPWI 302	C	OVERALL SERVICES LAYOUT PLAN SHEET 3 OF 4
5941 ENG OPWI 303	C	OVERALL SERVICES LAYOUT PLAN SHEET 4 OF 4
5941 ENG OPWI 400	C	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 1 OF 4
5941 ENG OPWI 401	C	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 2 OF 4
5941 ENG OPWI 402	C	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 3 OF 4
5941 ENG OPWI 403	C	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 4 OF 4
5941 ENG OPWI 410	C	TYPICAL SECTIONS AND DETAILS SHEET 1 OF 3
5941 ENG OPWI 411	C	TYPICAL SECTIONS AND DETAILS SHEET 2 OF 3
5941 ENG OPWI 412	B	TYPICAL SECTIONS AND DETAILS SHEET 3 OF 3
5941 ENG OPWI 420	C	CONTROL LINE LAYOUT PLAN
5941 ENG OPWI 421	C	ROAD CONTROL LINE SETOUT TABLES SHEET 1 OF 2
5941 ENG OPWI 422	C	ROAD CONTROL LINE SETOUT TABLES SHEET 2 OF 2
5941 ENG OPWI 430	C	ROAD LONGITUDINAL SECTION – HOMESTEAD DRIVE SHEET 1 OF 3
5941 ENG OPWI 431	C	ROAD LONGITUDINAL SECTION – HOMESTEAD DRIVE SHEET 2 OF 3
5941 ENG OPWI 432	C	ROAD LONGITUDINAL SECTION – HOMESTEAD DRIVE SHEET 3 OF 3
5941 ENG OPWI 433	C	ROAD LONGITUDINAL SECTION – EASTRIDGE STREET SHEET 1 OF 2
5941 ENG OPWI 434	C	ROAD LONGITUDINAL SECTION – EASTRIDGE STREET SHEET 2 OF 2
5941 ENG OPWI 435	C	ROAD LONGITUDINAL SECTION – FAIRWAY STREET SHEET 1 OF 2
5941 ENG OPWI 436	C	ROAD LONGITUDINAL SECTION – FAIRWAY STREET SHEET 2 OF 2
5941 ENG OPWI 437	B	ROAD LONGITUDINAL SECTION – EMERI STREET EXTENSION
5941 ENG OPWI 450	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 1 OF 14
5941 ENG OPWI 451	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 2 OF 14
5941 ENG OPWI 452	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 3 OF 14
5941 ENG OPWI 453	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 4 OF 14
5941 ENG OPWI 454	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 5 OF 14
5941 ENG OPWI 455	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 6 OF 14
5941 ENG OPWI 456	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 7 OF 14
5941 ENG OPWI 457	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 8 OF 14
5941 ENG OPWI 458	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 9 OF 14
5941 ENG OPWI 459	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 10 OF 14
5941 ENG OPWI 460	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 11 OF 14
5941 ENG OPWI 461	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 12 OF 14
5941 ENG OPWI 462	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 13 OF 14
5941 ENG OPWI 463	C	ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 14 OF 14
5941 ENG OPWI 464	B	ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 1 OF 8
5941 ENG OPWI 465	B	ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 2 OF 8
5941 ENG OPWI 466	B	ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 3 OF 8
5941 ENG OPWI 467	B	ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 4 OF 8
5941 ENG OPWI 468	B	ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 5 OF 8
5941 ENG OPWI 469	B	ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 6 OF 8
5941 ENG OPWI 470	B	ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 7 OF 8
5941 ENG OPWI 471	B	ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 8 OF 8

DRAWING INDEX

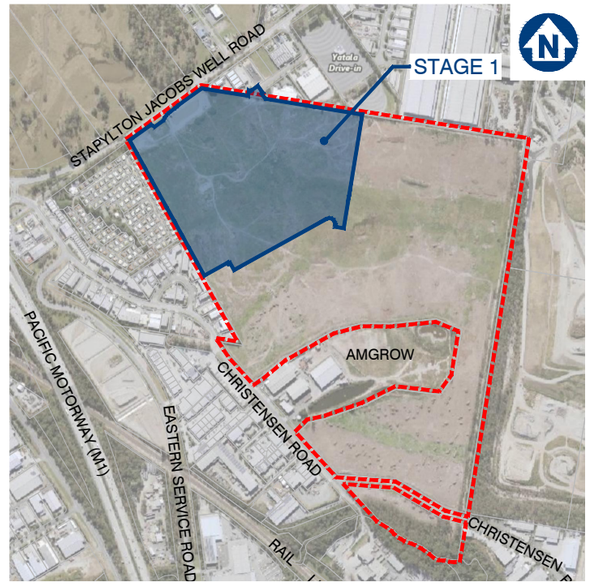
DRAWING No.	REV No.	DRAWING TITLE
5941 ENG OPWI 472	C	ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 1 OF 6
5941 ENG OPWI 473	C	ROAD CROSS SECTIONS – FAIRWAY DRIVE STREET 2 OF 6
5941 ENG OPWI 474	C	ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 3 OF 6
5941 ENG OPWI 475	C	ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 4 OF 6
5941 ENG OPWI 476	C	ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 5 OF 6
5941 ENG OPWI 477	C	ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 6 OF 6
5941 ENG OPWI 478	B	ROAD CROSS SECTIONS – EMERI STREET EXTENSION SHEET 1 OF 2
5941 ENG OPWI 479	B	ROAD CROSS SECTIONS – EMERI STREET EXTENSION SHEET 2 OF 2
5941 ENG OPWI 480	C	KERB ISLAND SETOUT DETAILS SHEET 1 OF 2
5941 ENG OPWI 481	C	KERB ISLAND SETOUT DETAILS SHEET 2 OF 2
5941 ENG OPWI 490	C	ROAD INTERSECTION DETAILS SHEET 1 OF 8
5941 ENG OPWI 491	C	ROAD INTERSECTION DETAILS SHEET 2 OF 8
5941 ENG OPWI 492	C	ROAD INTERSECTION DETAILS SHEET 3 OF 8
5941 ENG OPWI 493	C	ROAD INTERSECTION DETAILS SHEET 4 OF 8
5941 ENG OPWI 494	B	ROAD INTERSECTION DETAILS SHEET 5 OF 8
5941 ENG OPWI 495	B	ROAD INTERSECTION DETAILS SHEET 6 OF 8
5941 ENG OPWI 496	C	ROAD INTERSECTION DETAILS SHEET 7 OF 8
5941 ENG OPWI 497	B	ROAD INTERSECTION DETAILS SHEET 8 OF 8
5941 ENG OPWI 500	C	STORMWATER DRAINAGE CATCHMENT PLAN
5941 ENG OPWI 510	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 18
5941 ENG OPWI 511	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 18
5941 ENG OPWI 512	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 3 OF 18
5941 ENG OPWI 513	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 4 OF 18
5941 ENG OPWI 514	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 5 OF 18
5941 ENG OPWI 515	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 6 OF 18
5941 ENG OPWI 516	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 7 OF 18
5941 ENG OPWI 517	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 8 OF 18
5941 ENG OPWI 518	C	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 9 OF 18
5941 ENG OPWI 519	C	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 10 OF 18
5941 ENG OPWI 520	C	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 11 OF 18
5941 ENG OPWI 521	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 12 OF 18
5941 ENG OPWI 522	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 13 OF 18
5941 ENG OPWI 523	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 14 OF 18
5941 ENG OPWI 524	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 15 OF 18
5941 ENG OPWI 525	C	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 16 OF 18
5941 ENG OPWI 526	D	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 17 OF 18
5941 ENG OPWI 527	C	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 18 OF 18
5941 ENG OPWI 550	B	39% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 1 OF 2
5941 ENG OPWI 551	B	39% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 2 OF 2
5941 ENG OPWI 552	B	1% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 1 OF 2
5941 ENG OPWI 553	B	1% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 2 OF 2
5941 ENG OPWI 570	C	OPERATIONAL PHASE BIORETENTION BASIN SHEET 1 OF 2
5941 ENG OPWI 571	B	OPERATIONAL PHASE BIORETENTION BASIN SHEET 2 OF 2
5941 ENG OPWI 572	C	OPERATIONAL PHASE BIORETENTION BASIN SETOUT DETAILS
5941 ENG OPWI 600	C	SEWER RETICULATION LAYOUT PLAN SHEET 1 OF 4
5941 ENG OPWI 601	C	SEWER RETICULATION LAYOUT PLAN SHEET 2 OF 4
5941 ENG OPWI 602	C	SEWER RETICULATION LAYOUT PLAN SHEET 3 OF 4
5941 ENG OPWI 603	C	SEWER RETICULATION LAYOUT PLAN SHEET 4 OF 4
5941 ENG OPWI 610	D	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 1 OF 11
5941 ENG OPWI 611	C	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 2 OF 11
5941 ENG OPWI 612	C	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 3 OF 11
5941 ENG OPWI 613	C	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 4 OF 11
5941 ENG OPWI 614	D	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 5 OF 11
5941 ENG OPWI 615	C	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 6 OF 11
5941 ENG OPWI 616	D	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 7 OF 11
5941 ENG OPWI 617	D	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 8 OF 11
5941 ENG OPWI 618	D	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 9 OF 11
5941 ENG OPWI 619	D	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 10 OF 11
5941 ENG OPWI 620	C	SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 11 OF 11
5941 ENG OPWI 700	C	WATER RETICULATION LAYOUT PLAN SHEET 1 OF 4
5941 ENG OPWI 701	C	WATER RETICULATION LAYOUT PLAN SHEET 2 OF 4
5941 ENG OPWI 702	C	WATER RETICULATION LAYOUT PLAN SHEET 3 OF 4
5941 ENG OPWI 703	C	WATER RETICULATION LAYOUT PLAN SHEET 4 OF 4

DRAWING INDEX

DRAWING No.	REV No.	DRAWING TITLE
5941 ENG OPWI 704	B	WATER RETICULATION TYPICAL DETAILS
5941 ENG OPWI 800	C	LINEMARKING AND SIGNAGE PLAN SHEET 1 OF 5
5941 ENG OPWI 801	B	LINEMARKING AND SIGNAGE PLAN SHEET 2 OF 5
5941 ENG OPWI 802	C	LINEMARKING AND SIGNAGE PLAN SHEET 3 OF 5
5941 ENG OPWI 803	C	LINEMARKING AND SIGNAGE PLAN SHEET 4 OF 5
5941 ENG OPWI 804	C	LINEMARKING AND SIGNAGE PLAN SHEET 5 OF 5

STANDARD DRAWINGS

DRAWING No.	REV	ASSOCIATION	DRAWING TITLE
DS-010	F	IPWEA	ACCESS CHAMBER – STORMWATER ACCESS CHAMBER DETAILS – 1050 TO 2100 DIA
DS-015	C	IPWEA	ACCESS CHAMBER – MANHOLE FRAME – ROADWAY AND NON ROADWAY – 1050 TO 2100 DIA
DS-018	C	IPWEA	ACCESS CHAMBER – MANHOLE RISER DETAILS
DS-019	C	IPWEA	ACCESS CHAMBER – MANHOLE ROVER (ROADWAY)
DS-020	C	IPWEA	ACCESS CHAMBER – MANHOLE ROVER (NON ROADWAY)
DS-021	C	IPWEA	ACCESS CHAMBER – MANHOLE COVER CONCRETE INFILL (PEDESTRIAN TRAFFIC) 1050 TO 2100 DIA
DS-030	F	IPWEA	EXCAVATION, BEDDING & BACKFILL – RIGID & FLEXIBLE DRAINAGE PIPES
DS-031	D	IPWEA	EXCAVATION, BEDDING & BACKFILL PRECAST – BOX CULVERTS
DS-040	E	IPWEA	SEDIMENT CONTROL – SEDIMENT CONTROL DEVICES – SEDIMENT FENCE, ENTRY/EXIT SEDIMENT TRAP
DS-041	E	IPWEA	SEDIMENT CONTROL – SEDIMENT CONTROL DEVICES – KERB AND FIELD INLET, CHECK DAMS & STRAW BALES
DS-050	E	IPWEA	DRAINAGE PITS – FIELD INLET TYPE 1 AND TYPE 2
DS-061	B	IPWEA	DRAINAGE PITS – KERB INLET – PRECAST LINTEL DETAILS
DS-062	D	IPWEA	DRAINAGE PITS – KERB INLET – GRATE AND FRAME
DS-063	C	IPWEA	DRAINAGE PITS – KERB INLET – LIP IN LINE – GENERAL ARRANGEMENT
DS-065	I	IPWEA	PATHWAYS – CONCRETE PATHWAY CONSTRUCTION DETAILS
DS-073	A	IPWEA	BIORETENTION DRAINAGE PROFILE – TYPE 3 – CONVENTIONAL
DS-075	A	IPWEA	LARGE BIORETENTION SEDIMENT FOREBAY
DS-076	A	IPWEA	BIORETENTION WEIR
DS-078	A	IPWEA	BIORETENTION STANDARD NOTES
GS-041	D	IPWEA	FENCING – CHAIN WIRE SECURITY FENCING
RS-049	E	IPWEA	VEHICLE CROSSING – RESIDENTIAL DRIVEWAYS – PLAN 1 OF 2
RS-050	G	IPWEA	VEHICLE CROSSING – RESIDENTIAL DRIVEWAYS – PLAN 2 OF 2
RS-080	F	IPWEA	KERB AND CHANNEL – PROFILES AND DIMENSIONS – INCLUDING EDGE RESTRAINTS, MEDIAN & CHANNEL
RS-090	J	IPWEA	KERB RAMPS – RAMPED PEDESTRIAN
RS-091	F	IPWEA	KERB RAMPS – RAMPED AND CUT THROUGH TREATMENTS – FOR PEDESTRIAN CROSSINGS, SLIP LANES AND MEDIANS
RS-094	F	IPWEA	KERB RAMPS – LOCATIONS AND CONFIGURATIONS
RS-130	F	IPWEA	ROAD FURNITURE – STREET NAME SIGN AND LOCATION (FINGERBOARD)
RS-131	G	IPWEA	ROAD FURNITURE – TRAFFIC SIGN INSTALLATION DETAILS
RS-140	F	IPWEA	SUBSOIL DRAINS – DETAILS AND LOCATION
RS-142	F	IPWEA	SUBSOIL DRAINS – ACCESS POINTS
SD1033	K	DTMR	KERB AND CHANNEL
SD1304	N	DTMR	PIPE CULVERTS – WINGWALLS, HEADWALLS AND APRON FOR PIPE DIA 750 TO 2400
02-003	2	CoGC	TYPICAL CROSS SECTIONS – COLLECTOR STREETS – PLAN 2 OF 2
02-005	I	CoGC	PUBLIC UTILITY PLANT CORRIDOR ALLOCATIONS IN PUBLIC ROAD VERGES
02-601	I	CoGC	NEW ROADS – SERVICE CONDUIT CROSSINGS
02-602	I	CoGC	ROAD CROSSING – TRENCH RESTORATION – FLEXIBLE PAVEMENTS
03-008	I	CoGC	FIELD INLET AND INTER-ALLOTMENT DRAINAGE PIT
03-101	I	CoGC	STORMWATER ACCESS CHAMBER 1050 DIA TO 1500 DIA
03-102	I	CoGC	STORMWATER ACCESS CHAMBER 1050 DIA TO 1500 DIA ROOF SLABS
03-201	I	CoGC	EXCAVATION AND BEDDING OF CONCRETE STORMWATER PIPES
05-014	I	CoGC	CHAIN WIRE FENCING – 1.8m HIGH



LOCALITY PLAN
SCALE 1: 8000 (A1)

CLIENT

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

SITE ADDRESS

60 STAPYLTON JACOBS WELL ROAD
STAPYLTON QLD 4207

DWG No. 5941 ENG OPWI 001 – REV D

SEPTEMBER 2020

GENERAL NOTES

1. CONTRACT DOCUMENTATION
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATION AND CoGC STANDARD DRAWINGS AND SPECIFICATIONS.

2. DATUM
LEVELS SHOWN ON THE PLANS ARE A.H.D.

3. SURVEY SETOUT
THE SURVEY SET OUT INFORMATION TO ALLOW THE CONTRACTOR TO ACCURATELY SET OUT THE WORKS HAS BEEN ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR. THE CONTRACTOR IS NOT TO SCALE FROM THESE PLANS AS A MEANS OF OBTAINING SETOUT INFORMATION.

4. EXISTING SURVEY CONTROL STATIONS
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT EXISTING SURVEY CONTROL STATIONS ARE NOT DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES. SHOULD THE CONTRACTOR IDENTIFY ANY CONFLICT BETWEEN EXISTING SURVEY CONTROL AND THE REQUIRED CONSTRUCTION ACTIVITIES THE SUPERINTENDENT IS TO BE NOTIFIED IMMEDIATELY.

5. EXISTING SERVICES
THE LOCATION OF EXISTING SERVICES WHERE SHOWN ON THE PLANS ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT SERVICE AUTHORITIES TO ASCERTAIN THE EXACT LOCATION OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS AND TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE EXISTING SERVICES.

6. SITE ACCESS
THE CONTRACTOR SHALL ONLY GAIN ACCESS TO THE SITE VIA ACCESS LOCATIONS APPROVED BY THE SUPERINTENDENT. FREEDOM OF ACCESS TO OTHER WORK AREAS ON THE SITE SHALL BE MAINTAINED AT ALL TIMES.

7. PROVISION FOR TRAFFIC
PROVISION FOR TRAFFIC ON LOCAL ROADS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND CoGC COUNCIL REQUIREMENTS.

8. WORK EXTENT
THE CONTRACTOR IS TO RESTRICT ACTIVITIES TO THOSE AREAS DESIGNATED AS WORKS AREAS UNDER THE CONTRACT. AT NO TIME IS THE CONTRACTOR TO ENTER ADJOINING PROPERTIES OR CONTRACT AREAS WITHOUT THE WRITTEN AUTHORISATION OF THE SUPERINTENDENT.

9. TESTING
ALL TESTING IS TO BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND REQUIREMENTS OF CoGC COUNCIL.

10. "AS CONSTRUCTED" SURVEY
"AS CONSTRUCTED" SURVEY SHALL BE CARRIED OUT BY THE PRINCIPAL'S SURVEYOR AS WORK PROCEEDS. THE CONTRACTOR IS TO PROVIDE ADEQUATE NOTICE TO THE PRINCIPAL'S SURVEYOR ON WHEN THIS IS REQUIRED TO ENSURE COMPLIANCE WITH THE REQUIREMENTS OF CoGC COUNCIL.

11. MAINTENANCE OF SITE CONDITION
AT THE COMPLETION OF WORKS THE SITE IS TO BE LEFT IN A CLEAN AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT AND CoGC.

EARTHWORKS

1. PRECEDENCE
EARTHWORKS SPECIFICATION PREPARED BY PROJECT GEOTECHNICAL ENGINEER TO TAKE PRECEDENCE OVER STANDARD COUNCIL EARTHWORKS NOTES.

2. TOPSOIL STRIPPING
TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.

3. EARTHWORKS LEVELS
EARTHWORKS LEVELS SHOWN ON THE DRAWING ARE TO FINISHED SURFACE LEVELS AND INCLUDE 100mm OF TOPSOIL. THE CONTRACTOR SHALL VERIFY BENCH MARK LEVELS AND ADVISE THE SUPERINTENDENT OF ANY DISCREPANCY BEFORE COMMENCEMENT OF CONSTRUCTION.

4. UNDESIRABLE MATERIAL
THE ENTIRE SITE/WORK AREAS SHALL BE CLEARED OF ALL UNDESIRABLE MATTER. THIS SHALL INCLUDE DEAD TIMBER, GRASS, OLD FOUNDATIONS, CONCRETE, MASONRY REMAINS, GARBAGE, DEBRIS AND ALL OTHER OBSTRUCTIONS TO THE WORKS UNLESS NOTED OTHERWISE. HOLES LEFT BY THE REMOVAL OF ANY OF THE ABOVE SHALL BE FILLED WITH APPROVED COMPACTED MATERIAL WITH PROPERTIES AT LEAST SIMILAR TO INSITU SOILS.

5. COMPACTION STANDARD
FILL MATERIAL SHALL BE COMPACTED TO THE FOLLOWING STANDARD, WHERE DRY DENSITY RATIO IS DETERMINED IN ACCORDANCE WITH AS 1289 USING STANDARD COMPACTION METHODS.
   a. 100% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 80% IN COHESIONLESS MATERIAL FOR ROAD SUBGRADE.
   b. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 65% IN COHESIONLESS MATERIAL FOR ALL AREAS OTHER THAN THE ROADWAY AND BUILDING PADS.
   c. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 70% IN COHESIONLESS MATERIAL FOR BUILDING PADS.

5. PAVEMENT DEPTHS
EARTHWORKS VOLUMES DO NOT INCLUDE DESIGN PAVEMENT DEPTHS AS INDICATED ON THE TYPICAL BULK EARTHWORKS ROAD SECTION.

6. TESTING
ALL EARTHWORKS TO BE CARRIED OUT UNDER LEVEL 1 SUPERVISION IN ACCORDANCE WITH AUSTRALIAN STANDARDS AS 3798 UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY.

7. ROCK
THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR EARTHWORKS RATES UNLESS SCHEDULED OTHERWISE WITHIN THE CONTRACT DOCUMENT.

8. DAMS AND PONDS
WHERE POSSIBLE, WATER FROM DAMS AND PONDS SHALL BE MAINTAINED AND UTILISED FOR CONSTRUCTION PURPOSES AND DUST SUPPRESSION. DAMS AND PONDS NOT TO BE RETAINED SHALL BE DEWATERED, CLEARED OF ANY FOREIGN MATTER AND ORGANIC MATERIAL WITH THIS MATERIAL TO BE REMOVED OFF SITE.

9. RETAINING STRUCTURES
THE DESIGN AND STRUCTURAL CERTIFICATION OF RETAINING STRUCTURES SHALL BE UNDERTAKEN BY THE CONTRACTOR'S STRUCTURAL ENGINEER (RPEQ) IN CONSULTATION WITH THE PROJECT'S CIVIL ENGINEER AND LANDSCAPE CONSULTANT. THE CONTRACTOR IS RESPONSIBLE FOR THE SUBMISSION AND APPROVAL COORDINATION OF THE ASSOCIATED DRAWINGS AND CERTIFICATION TO GoGC. A COPY OF THIS SUBMISSION IS TO BE PROVIDED TO THE SUPERINTENDENT.

10. TOPSOIL REPLACEMENT
ALL BATTERS AND ALLOTMENT CUT & FILL AREAS SHALL BE TOP SOILED FROM ONSITE STOCKPILES. IF DIRECTED BY THE SUPERINTENDENT THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING. THE CONTRACTOR SHALL ALLOW IN THEIR RATE FOR SCREENING AND THE DISPOSAL OF REJECT MATERIAL TO TIP OFFSITE INCLUDING ALL FEES. THE CONTRACTOR MUST ENSURE THAT THE STRIPPING SHALL BE UNDERTAKEN IN SUCH A MANNER AS TO AVOID CONTAMINATION BY OVER CUTTING. IF TOPSOIL IS CONTAMINATED BY OVER CUTTING AND DETERMINED NOT SUITABLE FOR REUSE BY THE SUPERINTENDENT, THE CONTRACTOR SHALL BEAR THE COST OF REMOVAL FROM SITE OF ALL CONTAMINATED TOPSOIL AND THE COST TO SUPPLY AND IMPORT SUITABLE TOPSOIL FOR RE-SPREADING.

11. GRASSING / SEEDING
ALL CUT & FILL AREAS AND DISTURBED AREAS SHALL BE GRASSED OR SEEDED TO THE SATISFACTION OF THE SUPERINTENDENT.

12. STOCKPILES
ALL MATERIAL/SPOIL ARISING FROM WORKS ON SITE SHALL BE COMPACTED TO AN APPROPRIATE STANDARD WITHIN THE FILL AREAS OF FUTURE STAGES AS NOMINATED BY THE SUPERINTENDENT. THE CONTRACTOR IS NOT TO CREATE STOCKPILES OF SURPLUS MATERIALS UNLESS WRITTEN AUTHORIZATION IS RECEIVED FROM THE SUPERINTENDENT.

SEDIMENT AND EROSION

1. THE OBJECTIVES OF THE EROSION AND SEDIMENT CONTROL PROGRAM ARE:
   a. ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AT NON-EROSIVE FLOW VELOCITIES.
   b. MINIMISE SOIL EROSION FROM WATER AND WIND
   c. MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF.
   d. MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGE FROM THE CONSTRUCTED SITE.
   e. ENSURE THAT THE VALUE AND USE OF RESIDENTIAL AND INDUSTRIAL PROPERTIES ADJACENT TO THE DEVELOPMENT ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT.

2. THE EROSION AND SEDIMENT CONTROL PROGRAM SHALL COMPLY WITH THE ENVIRONMENTAL BEST ENGINEERING GUIDELINES FOR QUEENSLAND CONSTRUCTION SITES. THE CURRENT INSTITUTION OF ENGINEERS AUSTRALIA AND LOCAL AUTHORITY GUIDELINES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTIONS INCLUDING THE MAINTENANCE PERIOD. NOTWITHSTANDING THE FINISHED EARTHWORK DESIGN SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AND DEVICES USING BEST PRACTICES AS NECESSARY TO MINIMISE THE QUANTITY LEAVING THE SITE DURING CONSTRUCTION AND UPON COMPLETION OF EARTHWORKS.

3. THE CONTRACTOR IS TO FOLLOW CONSTRUCTION PHASE AS OUTLINED IN THE CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM. ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPLACED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 50%. ALL PERIMETER BANK/SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND GULLY INLETS. INLETS TO HAVE SILT PROTECTION IN ACCORDANCE WITH KERB INLET PROTECTION DETAIL AT LOCATIONS SHOWN OR AS INDICATED BY THE ENGINEER.

4. PRIOR TO THE COMMENCEMENT OF EARTHWORKS, THE CONTRACTOR IS TO CARRY OUT SOIL TESTING (IF REQUIRED BY SUPERINTENDENT) TO DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL AND RESULTS TO BE GIVEN TO THE ENGINEERS SO THE FINALIZATION OF THE EROSION AND SEDIMENT CONTROL PLAN CAN BE COMPLETE.

5. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN LOCATIONS AGREED WITH THE SUPERINTENDENT. CLEARING OF SITE AND STOCKPILE AREAS TO BE AS DIRECTED BY THE SUPERVISING ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AT ALL TIMES INCLUDING WEEKENDS AND PUBLIC HOLIDAYS.

6. SUITABLE ACCESS SHALL BE PROVIDED TO ALLOW MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES (IT IS TO BE NOTED THAT CLEARING SHALL ONLY OCCUR IN AREAS WHERE THERE IS NO OTHER ALTERNATIVE TO GAIN ACCESS TO THE LOCATION OF THE SEDIMENT CONTROL DEVICES). APPROVAL FOR REMOVAL OF PROTECTED SIZE VEGETATION MUST BE OBTAINED PRIOR TO CLEARING.

7. ROCK BUNDS TO BE PLACED AROUND ALL HEADWALLS DURING CONSTRUCTION.

8. 0.8m TURF IS TO BE PLACED BEHIND ON ALL BATTERS WITHIN PRIVATE OPEN SPACE STEEPER THAN 1:4 UNLESS OTHERWISE NOTED. THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE ENGINEER AND SHALL BE SEEDED, AS SPECIFIED, WITHIN 7 DAYS OF FINAL TRIMMING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT GRASS STRIKE RATES ARE ACHIEVED AT ON AND OFF MAINTENANCE INSPECTION IN ACCORDANCE WITH COUNCIL REQUIREMENTS.

9. TURF IS TO BE PLACED FROM BACK OF KERB TO ROAD RESERVE BOUNDARY ON ALL ROADS AFTER EARTHWORKS ARE COMPLETE.

10. GEO-FABRIC LINING OF CHANNELS AND CHECK DAMS MAY BE REQUIRED SUBJECT TO THE SITE CONDITIONS.

11. FILLING AND OR MAINTENANCE OF EXISTING AND OR SEDIMENT BASINS MAY REQUIRE FLOCCULATION.

12. BATTERS WITHIN PUBLIC OPEN SPACE TO BE VEGETATED IN ACCORDANCE WITH THE APPROVED OPEN SPACE MANAGEMENT PLAN (OSMP).

13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN OUT GPT'S, SEDIMENT FOREBAYS AND ALL OTHER SEDIMENT CONTROL DEVICES DURING CONSTRUCTION AND PRIOR BOTH ON AND OFF MAINTENANCE INSPECTIONS WITH CoGC. THE CONTRACTOR SHALL ALLOW FOR THE COST OF THESE WORKS WITHIN THEIR SUBMITTED TENDER PRICE.

CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM

1. PRE START
   a. ERECT SITE SIGNAGE, CONSTRUCT ENTRY AND EXIT POINT AS INDICATED CONSTRUCT VEHICLE WASH-DOWN AREA AND ASSOCIATED SILT MANAGEMENT DEVICES.
   b. CONSTRUCT SITE OFFICE AND STORAGE COMPOUND AREA
   c. ERECT SILT FENCE AT LOW POINTS OF THE SITE AS DEMONSTRATED
   d. ERECT TEMPORARY TREE PROTECTION FENCING FOR VEGETATION TO BE RETAINED IN ACCORDANCE WITH AN OPW (TREE CLEARING) APPROVAL OR IN ACCORDANCE WITH AS4970 PROTECTION OF TREES ON DEVELOPMENT SITE.
   e. CONSTRUCT ROCK CHECK DAMS AND SILT FENCE DOWN STREAM OF BASIN.
   f. CONSTRUCT BASIN TO FULL DEPTH.
   g. CONSTRUCT BALANCE OF BASIN IN CONJUNCTION WITH CLEARING AND BULK EARTHWORKS OPERATIONS.
   h. BASIN TO BE UTILISED AS A TEMPORARY SEDIMENT BASIN. DO NOT FILL IN FILTRATION MATERIAL UNTIL CONSTRUCTION OF DEVELOPMENT IS COMPLETE.

2. CLEARING AND BULK EARTHWORKS
THERE SHALL BE NO CLEARING OF PROTECTED SITE VEGETATION WITHOUT AN APPROVED TREE CLEARING PLAN WHICH SHALL BE IN ACCORDANCE WITH AS4970.
SILT FENCE, SAND BAGS AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED DURING CLEARING & EARTHWORKS.
SUPERINTENDENT TO CONFIRM THE EXTENT OF CLEARING PRIOR TO COMMENCEMENT OF WORKS.

3. CONSTRUCTION OF SEWER/ROOFWATER/ STORMWATER/SERVICES
EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS.
TOPSOIL AND GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION.
DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SILT POND.

4. CONSTRUCTION – SEDIMENT BASINS
SEDIMENT BASIN TO BE CONSTRUCTED TO THE EARTHWORK PROFILES SHOWN.
STORMWATER OUTLET PIPES TO BE TEMPORARY BLOCKED OFF UNTIL DECOMMISSIONING OF SEDIMENT BASIN (SUBSEQUENT TO CONSTRUCTION OF ALL STAGES).
PLACE SPOIL FROM SEDIMENT BASIN INTO ALLOCATED AREAS AS ENGINEERED FILL IN ACCORDANCE WITH THE STAGING ORDER.
SEDIMENT BASIN SHALL ONLY BE REMOVED AFTER APPROVAL BY SUPERINTENDENT AND COUNCIL.

5. CONSTRUCTION – STOCKPILING
TEMPORARY SILT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING.
STOCKPILE SITE TO BE CLEARED OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE NUISANCE TO ADJOINING PROPERTIES.
NO STOCKPILES ARE TO BE LOCATED WITHIN THE DRIP ZONE OR STRUCTURAL ROOT ZONE OF ANY RETAINED VEGETATION.

6. CONSTRUCTION – ROADWORKS
SILT FENCES TO ALLOTMENTS TO BE ERECTED.
KERB INLET PROTECTION TO BE PROVIDED TO ALL GULLIES.

7. CONSTRUCTION – ALLOTMENTS
TOPSOIL AND SEED ALLOTMENTS.
SILT FENCES TO ALLOTMENTS TO BE RE-ERECTED.
COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATE THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT RIMMING).

8. POST CONSTRUCTION – ALLOTMENTS
TOPSOIL AND GRASS SEED ALL ALLOTMENTS.
COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING).

9. POST CONSTRUCTION – BASIN
BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL COMPLETION OF ALL STAGES.

10. POST CONSTRUCTION – ROAD RESERVES
TOPSOIL AND TURFING IS TO BE PROVIDED BEHIND KERB.

11. MAINTENANCE (PRE TO POST CONSTRUCTION)
THE SILT FENCES ARE TO BE INSPECTED WEEKLY.
ANY REPAIRS REQUIRED ARE TO BE EFFECTED IMMEDIATELY.
SILT AFTER RAIN IS TO BE CLEANED FROM STREETS AND ALLOTMENTS IMMEDIATELY AND CORRECTIVE ACTION TAKEN TO AVOID A RE-OCCURRENCE OF THE FAILURE.

12. BASIN CONSTRUCTION
PRIOR TO COMMENCING CONSTRUCTION OF THE DETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORK AREAS, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DE-WATERING.
BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL 85% OF CATCHMENT CONSTRUCTION IS COMPLETE.
THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS AND COMPACTED TO DENSITY RATIO WITHIN THE RANGE 98%-102% STANDARD COMPACTION (AS 1289.5.1.1). PLACEMENT MOISTURE CONTENT SHOULD BE WITHIN THE RANGE OMC -1% TO OMC -2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION). CONTRACTOR TO PROVIDE SAFETY FENCING TO BASIN DURING CONSTRUCTION AND APPROPRIATE SIGNAGE (PERMANENT OR TEMPORARY).

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
GENERAL NOTES SHEET 1 OF 3

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
NOT APPLICABLE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 002
Rev. No: B

HES BASIN GENERAL NOTES

AUTO DOSER

1. PROVIDED AS EITHER 'FLOC BOX' OR 'IFOD–RAIN' DOSING UNIT OR APPROVED EQUIVALENT TO MANUFACTURERS SPECIFICATION.

2. DOSER AND SUPPLY OF FLOCCULANT TO BE PROVIDED ON LEVEL PAD 4mX4m WITHIN 10m OF DOSING POINT.

3. ALL–WEATHER ACCESS TRACK TO BE PROVIDED TO DOSER.

4. FLOCCULANT PROVIDED AS TURBICLEAR (ACH) OR APPROVED EQUIVALENT. IF ALTERNATIVE FLOCCULANT USED THEN THE BASIN SIZE IS TO BE INCREASED ACCORDING TO JAR SETTLEMENT TEST (REFER TO TABLE BELOW).

JAR SETTLEMENT AFTER 15 MINS	MULTIPLICATION FACTOR TO SETTLING ZONE
(mm)	VOLUME
50	x3.0
75	x2.0
100	x1.5
150	x1.0

BASIN CONSTRUCTION

MATERIALS

5. EARTH FILL: CLEAN SOIL WITH EMERSION CLASS 2(1), 3, 4 OR 5 AND FREE OF ROOTS, WOODY VEGETATION, ROCKS AND OTHER UNSUITABLE MATERIAL. SOIL WITH EMERSION CLASS 4 AND 5 MAY NOT BE SUITABLE DEPENDING ON PARTICLE SIZE DISTRIBUTION AND DEGREE OF DISPERSION. CLASS 2 (1) SHOULD ONLY BE USED UPON RECOMMENDATION FROM GEOTECHNICAL SPECIALIST.

6. SPILLWAY ROCK: HARD, ANGULAR, DURABLE, WEATHER RESISTANT AND EVENLY GRADED ROCK WITH 50% BY WEIGHT LARGER THAN THE SPECIFIED NOMINAL (D50) ROCK SIZE. LARGE ROCK SHOULD DOMINATE, WITH SUFFICIENT SMALL ROCK TO FILL THE VOIDS BETWEEN LARGER ROCK. THE DIAMETER OF THE LARGEST ROCK SHOULD BE NO LARGER THAN 1.5 TIMES THE NOMINAL ROCK SIZE. THE SPECIFIC GRAVITY SHOULD BE AT LEAST 2.5.

7. GEOTEXTILE FABRIC: HEAVY DUTY, NEEDLE–PUNCHED, NON–WOVEN CLOTH, MINIMUM 'BIDIM' A24 OR EQUIVALENT.

CONSTRUCTION

8. NOTWITHSTANDING ANY DESCRIPTION CONTAINED WITH APPROVED PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SATISFYING THEMSELVES AS TO THE NATURE AND EXTENT OF THE SPECIFIED WORKS AND THE PHYSICAL AND LEGAL CONDITIONS UNDER WHICH THE WORKS WILL BE CARRIED OUT. THIS SHALL INCLUDE MEANS OF ACCESS, EXTENT OF CLEARING, NATURE OF THE MATERIALS TO BE EXCAVATED, TYPE AND SIZE OF MECHANICAL PLANT REQUIRED, LOCATION AND SUITABILITY OF WATER SUPPLY FOR CONSTRUCTION AND TESTING PURPOSES, AND ANY OTHER LIKELY MATTERS AFFECTING THE CONSTRUCTION OF THE WORKS.

9. REFER TO APPROVED PLANS FOR LOCATION, DIMENSIONS, AND CONSTRUCTION DETAILS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, DIMENSIONS, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER OR RESPONSIBLE ON–SITE OFFICER FOR ASSISTANCE.

10. BEFORE STARTING ANY CLEARING OR CONSTRUCTION, ENSURE ALL THE NECESSARY MATERIALS AND COMPONENTS ARE ON THE SITE TO AVOID DELAYS IN COMPLETING THE SEDIMENT BASIN ONCE WORKS BEGIN.

11. INSTALL REQUIRED SHORT TERM SEDIMENT CONTROL MEASURES DOWNSTREAM OF THE PROPOSED EARTHWORKS TO CONTROL SEDIMENT RUNOFF DURING CONSTRUCTION OF THE BASIN.

12. THE AREA TO BE COVERED BY THE EMBANKMENT, BORROW PITS AND INCIDENTAL WORKS, TOGETHER WITH AN AREA EXTENDING BEYOND THE LIMITS OF EACH FOR A DISTANCE NOT EXCEEDING FIVE (5) METRES ALL AROUND MUST BE CLEARED OF ALL TREES, SCRUB, STUMPS, ROOTS, DEAD TIMBER AND RUBBISH AND DISPOSED OF IN A SUITABLE MANNER. DELAY CLEARING THE MAIN BASIN AREA UNTIL THE EMBANKMENT IS COMPLETE.

13. ENSURE ALL HOLES MADE BY GRUBBING WITHIN THE EMBANKMENT FOOTPRINT ARE FILLED WITH SOUND MATERIAL, ADEQUATELY COMPACTED, AND FINISHED FLUSH WITH THE NATURAL SURFACE.

CUT–OFF TRENCH

14. BEFORE CONSTRUCTION OF THE CUT–OFF TRENCH OR ANY ANCILLARY WORKS WITHIN THE EMBANKMENT FOOTPRINT, ALL GRASS GROWTH AND TOPSOIL MUST BE REMOVED FROM THE AREA TO BE OCCUPIED BY THE EMBANKMENT AND MUST BE DEPOSITED CLEAR OF THIS AREA AND RESERVED FOR TOPDRESSING THE COMPLETED EMBANKMENT.

15. EXCAVATE A CUT–OFF TRENCH ALONG THE CENTRE LINE OF THE EARTH FILL EMBANKMENT. CUT THE TRENCH TO STABLE SOIL MATERIAL, BUT IN NO CASE MAKE IT LESS THAN 600mm DEEP. THE CUT–OFF TRENCH MUST EXTEND INTO BOTH ABUTMENTS TO AT LEAST THE ELEVATION OF THE OUTLET SPILLWAY CREST. MAKE THE MINIMUM BOTTOM WIDTH WIDE ENOUGH TO PERMIT OPERATION OF THE EXCAVATION AND COMPACTION EQUIPMENT, BUT IN NO CASE LESS THAN 600mm. MAKE THE SIDE SLOPES OF THE TRENCH NO STEEPER THAN 1:2 (H:V).

16. ENSURE ALL WATER, LOOSE SOIL, AND ROCK ARE REMOVED FROM THE TRENCH BEFORE BACKFILLING COMMENCES. THE CUT–OFF TRENCH MUST BE BACKFILLED WITH SELECT EARTH–FILL OF THE TYPE SPECIFIED FOR THE EMBANKMENT, AND THIS SOIL MUST HAVE A MOISTURE CONTENT AND DEGREE OF COMPACTION THE SAME AS SPECIFIED FOR THE CORE ZONE.

17. MATERIAL EXCAVATED FROM THE CUT–OFF TRENCH MAY BE USED IN THE CONSTRUCTION OF THE EMBANKMENT PROVIDED IT IS SUITABLE AND IT IS PLACED IN THE CORRECT ZONE ACCORDING TO ITS CLASSIFICATION.

EMBANKMENT

18. SCARIFY AREAS ON WHICH FILL IS TO BE PLACED BEFORE PLACING THE FILL.

19. ENSURE ALL FILL MATERIAL USED TO FORM THE EMBANKMENT MEETS THE SPECIFICATIONS CERTIFIED BY A SOIL SCIENTIST OF GEOTECHNICAL SPECIALIST.

20. THE FILL MATERIAL MUST CONTAIN SUFFICIENT MOISTURE SO IT CAN BE FORMED BY HAND INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SQUEEZED OUT OF THE BALL, IT IS TOO WET FOR PROPER COMPACTION. PLACE FILL MATERIAL IN 150 TO 200mm CONTINUOUS LAYERS OVER THE ENTIRE LENGTH OF THE FILL AREA AND THEN COMPACT BEFORE PLACEMENT OF FURTHER FILL.

21. UNLESS SPECIFIED ON THE APPROVED PLANS, COMPACT THE SOIL AT ABOUT 1% TO 2% WET OPTIMUM AND TO 95% MODIFIED OR 100% STANDARD COMPACTION.

22. WHERE BOTH DISPERSIVE AND NON–DISPERSIVE CLASSIFIED EARTH–FILL MATERIALS ARE AVAILABLE, NON–DISPERSIVE EARTH–FILL MUST BE USED IN THE CORE ZONE. THE REMAINING CLASSIFIED EARTH–FILL MATERIALS MUST ONLY BE USED AS DIRECTED BY THE SITE SUPERINTENDENT.

23. WHERE SPECIFIED, CONSTRUCT THE EMBANKMENT TO AN ELEVATION 10% HIGHER THAN THE DESIGN HEIGHT TO ALLOW FOR SETTLING; OTHERWISE FINISHED DIMENSIONS OF THE EMBANKMENT AFTER SPREADING OF TOPSOIL MUST CONFORM TO THE DRAWING WITH A TOLERANCE OF 75mm FROM SPECIFIED DIMENSIONS.

24. ENSURE DEBRIS AND OTHER UNSUITABLE BUILDING WASTE IS NOT PLACED WITHIN THE EARTH EMBANKMENT.

25. AFTER COMPLETION OF THE EMBANKMENT ALL LOOSE UNCOMPACTED EARTH–FILL MATERIAL ON THE UPSTREAM AND DOWNSTREAM BATTER MUST BE REMOVED PRIOR TO SPREADING TOPSOIL.

26. TOPSOIL AND RE–VEGETATE/STABILISE ALL EXPOSED EARTH AS DIRECTED WITHIN THE APPROVED PLANS.

ESTABLISHING THE SETTLING POND

27. THE AREA TO BE COVERED BY THE STORED WATER OUTSIDE OF THE LIMITS OF THE BORROW PITS MUST BE CLEARED OF RUBBISH. TREES MUST BE CUT DOWN STUMP HIGH AND REMOVED FROM THE IMMEDIATE VICINITY OF THE WORK.

28. ESTABLISH ALL REQUIRED INFLOW CHUTES AND INLET BAFFLES IF SPECIFIED TO ENABLE WATER TO DISCHARGE INTO THE BASIN IN A MANNER THAT WILL NOT CAUSE SOIL EROSION OR THE RE–SUSPENSION OF SETTLED SEDIMENT.

29. INSTALL A SEDIMENT STORAGE LEVEL MARKER POST WITH A CROSS MEMBER SET JUST BELOW THE TOP OF THE SEDIMENT STORAGE ZONE (AS SPECIFIED ON THE APPROVED PLANS). USE AT LEAST A 75mm WIDE POST FIRMLY SET INTO THE BASIN FLOOR.

30. IF SPECIFIED, INSTALL INTERNAL SETTLING POND BAFFLES. ENSURE THE CREST OF THESE BAFFLES IS SET LEVEL WITH, OR JUST BELOW, THE ELEVATION OF THE EMERGENCY SPILLWAY.

31. INSTALL ALL APPROPRIATE MEASURES TO MINIMISE SAFETY RISK TO ON–SITE PERSONNEL AND THE PUBLIC CAUSED BY THE PRESENCE OF THE SETTLING POND. AVOID STEEP, SMOOTH INTERNAL SLOPES. APPROPRIATELY FENCE THE SETTLING POND AND POST WARNING SIGNS IF UNSUPERVISED PUBLIC ACCESS IS LIKELY OR THERE IS CONSIDERED TO BE AN UNACCEPTABLE RISK TO THE PUBLIC.

SPILLWAY CONSTRUCTION

32. THE SPILLWAY MUST BE EXCAVATED AS SHOWN ON THE PLANS, AND THE EXCAVATED MATERIAL IF CLASSIFIED AS SUITABLE, MUST BE USED IN THE EMBANKMENT, AND IF NOT SUITABLE IT MUST BE DISPOSED OF INTO SPOIL HEAPS.

33. ENSURE EXCAVATED DIMENSIONS ALLOW ADEQUATE BOXING–OUT SUCH THAT THE SPECIFIED ELEVATIONS, GRADES, CHUTE WIDTH, AND ENTRANCE AND EXIT SLOPES FOR THE EMERGENCY SPILLWAY WILL BE ACHIEVED AFTER PLACEMENT OF THE ROCK OR OTHER SCOUR PROTECTION MEASURES AS SPECIFIED IN THE PLANS.

34. PLACE SPECIFIED SCOUR PROTECTION MEASURES ON THE EMERGENCY SPILLWAY. ENSURE THE FINISHED GRADE BLENDS WITH THE SURROUNDING AREA TO ALLOW A SMOOTH FLOW TRANSITION FROM SPILLWAY TO DOWNSTREAM CHANNEL.

35. IF A SYNTHETIC FILTER FABRIC UNDERLAY IS SPECIFIED, PLACE THE FABRIC DIRECTLY ON THE PREPARED FOUNDATION. IF MORE THAN 1 SHEET OF FILTER FABRIC IS REQUIRED, OVERLAP THE EDGES BY AT LEAST 300mm AND PLACE ANCHOR PINS AT MINIMUM 1m SPACING ALONG THE OVERLAP. BURY THE UPSTREAM END OF THE FILTER FABRIC A MINIMUM 300mm BELOW GROUND AND WHERE NECESSARY, BURY THE LOWER END OF THE FABRIC OR OVERLAP A MINIMUM 300mm OVER THE NEXT DOWNSTREAM SECTION AS REQUIRED. ENSURE THE FILTER FABRIC EXTENDS AT LEAST 1000mm UPSTREAM OF THE SPILLWAY CREST.

36. TAKE CARE NOT TO DAMAGE THE FABRIC DURING OR AFTER PLACEMENT. IF DAMAGE OCCURS, REMOVE THE ROCK AND REPAIR THE SHEET BY ADDING ANOTHER LAYER OF FABRIC WITH A MINIMUM OVERLAP OF 300mm AROUND THE DAMAGED AREA.IF EXTENSIVE DAMAGE IS SUSPECTED, REMOVE AND REPLACE THE ENTIRE SHEET.

37. WHERE LARGE ROCK IS USED, OR MACHINE PLACEMENT IS DIFFICULT, A MINIMUM 100mm LAYER OF FINE GRAVEL, AGGREGATE, OR SAND MAY BE NEEDED TO PROTECT THE FABRIC.

38. PLACEMENT OF ROCK SHOULD FOLLOW IMMEDIATELY AFTER PLACEMENT OF THE FILTER FABRIC. PLACE ROCK SO THAT IT FORMS A DENSE, WELL GRADED MASS OF ROCK WITH A MINIMUM OF VOIDS. THE DESIRED DISTRIBUTION OF ROCK THROUGHOUT THE MASS MAY BE OBTAINED BY SELECTIVE LOADING AT THE QUARRY AND CONTROLLED DUMPING DURING FINAL PLACEMENT.

39. THE FINISHED SLOPE SHOULD BE FREE OF POCKETS OF SMALL ROCK OR CLUSTERS OF LARGE ROCKS. HAND PLACING MAY BE NECESSARY TO ACHIEVE THE PROPER DISTRIBUTION OF ROCK SIZES TO PRODUCE A RELATIVELY SMOOTH, UNIFORM SURFACE. THE FINISHED GRADE OF THE ROCK SHOULD BLEND WITH THE SURROUNDING AREA. NO OVER FALL OR PROTRUSION OF ROCK SHOULD BE APPARENT.

40. ENSURE THAT THE FINAL ARRANGEMENT OF THE SPILLWAY CREST WILL NOT PROMOTE EXCESSIVE FLOW THROUGH THE ROCK SUCH THAT THE WATER CAN BE RETAINED WITHIN THE SETTLING BASIN AT THE ELEVATION NO LESS THAN 50mm ABOVE OF BELOW THE NOMINATED SPILLWAY CREST ELEVATION.

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 002-005.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

GENERAL NOTES SHEET 2 OF 3

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 003

Rev. No: B

ROADWORKS NOTES

1. SETOUT
ALL DIMENSIONS AND SETOUT SHALL BE VERIFIED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION.

2. SUBGRADE
THE PAVEMENT SUB-GRADE SHALL BE TRIMMED TO THE REQUIRED PROFILES AND COMPACTED TO THE SATISFACTION OF THE SUPERINTENDENT.

3. GRAVEL SUB-BASE
GRAVEL PAVEMENT SUB-BASE SHALL BE A MINIMUM CBR45 OTHERWISE APPROVED BY THE SUPERINTENDENT.

4. TESTING OF PAVEMENT SUBGRADE AND SUB-BASE
ALL TESTING SHALL BE PERFORMED BY AN APPROVED N.A.T.A TESTING LABORATORY IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUSTRALIAN STANDARDS.

5. CONCRETE DEPTH DESIGN CRITERIA
CONCRETE PAVEMENT CONSTRUCTION SHALL NOT BE COMMENCED UNTIL THE CBR OF THE SUB-GRADE IS CONFIRMED AND THE PROPOSED PAVEMENT DEPTH AND CONCRETE SLAB THICKNESS ARE APPROVED BY THE SUPERINTENDENT.

6. CONCRETE
CONCRETE TO BE IN ACCORDANCE WITH AS3600. CONCRETE TO BE MECHANICALLY VIBRATED. THE VIBRATOR SHALL NOT BE USED TO SPREAD THE CONCRETE. SLABS TO BE POURED IN ALTERNATE BAYS 24 HOURS APART.

STORMWATER DRAINAGE

1. ALL DRAINAGE STRUCTURES ARE TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING DOCUMENTS.
   - MAIN ROADS STANDARDS DRAWINGS AND SPECIFICATIONS,
   - GoGC DESIGN GUIDELINES, STANDARD DRAWINGS AND SPECIFICATIONS
   - ANY MANUFACTURES STANDARDS DRAWINGS AND SPECIFICATIONS.
   - RELEVANT AUSTRALIAN STANDARDS
2. WHERE A CONNECTION IS MADE TO AN EXISTING DRAINAGE PIPE OR PIT. THEN THE LEVEL OF THAT ELEMENT MUST BE SURVEYED PRIOR TO CONSTRUCTION. THE SURVEYED LEVELS SHALL BE PROVIDED TO THE SUPERINTENDED TO CONFIRM THE CONNECTION AND LEVELS PRIOR TO CONSTRUCTION.
3. ALL STORMWATER PIPES SHALL BE RCP RRJ CLASS AS SPECIFIED.
4. THE CLASS OF STORMWATER PIPES SPECIFIED ON PIPE LONG SECTIONS DOES NOT ALLOW FOR CONSTRUCTION VEHICLE LOADINGS. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THERE IS NO DAMAGE TO STORMWATER PIPES ALREADY LAID DURING THE COURSE OF CONSTRUCTION.
5. VIBRATORY TRENCH ROLLER ALLOWED AT DEPTH OVER 600mm ABOVE TOP OF PIPE.
6. VIBRATORY TRENCH RAMMER ALLOWED AT DEPTHS OVER 450mm ABOVE TOP OF PIPE.
7. EXCAVATION COMPACTION WHEELS ARE NOT TO BE USED WITHOUT PERMISSION FROM THE SUPERINTENDENT.
8. ALL TRENCH BACKFILL MATERIAL UNDER THE PAVEMENT SHALL BE CBR 15 OR APPROVED EQUIVALENT.
9. HEADWALL END STRUCTURES TO BE 32mPA. CAST IN SITU CONCRETE WITH CONCRETE APRONS (INCLUDING CUT OFF WALLS) UNLESS NOTED OTHERWISE. REFER TO CoGC DRG 05-03-202 AND DTMR STD DRG.1304-1306 FOR DETAILS.
10. STEEL GRATES AND FRAMES ARE TO BE FABRICATED FROM MILD STEEL AND HOT DIP GALVANIZED. ALL GRATES ARE TO BE CLASS D (U.N.O) AND BICYCLE SAFE IN ACCORDANCE WITH AUSTRALIAN STANDARDS AS 3996 (U.N.O).
11. MANHOLE SETOUT POINTS TO CENTRE OF MANHOLE.
12. STORMWATER PIPE LENGTHS QUOTED ARE CALCULATED FROM CENTRE OF PIT/CHAMBER. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE ACTUAL LENGTHS REQUIRED.
13. ANY TEMPORARY STORMWATER DIVERSIONS ARE TO BE APPROVED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION.

SEWER RETICULATION

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SOUTH EAST QUEENSLAND SEWERAGE CODE SPECIFICATIONS AND STANDARDS.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE CONSTRUCTION OF THE SEWERAGE WORK SHOWN ON THIS DRAWING SHALL BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. SEWERAGE WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO GOLD COAST WATER'S SEWERAGE SYSTEM.
4. ALL WORK ASSOCIATED WITH LIVE SEWERS OR MAINTENANCE HOLES SHALL BE CARRIED OUT BY AN APPROVED CONTRACTOR UNDER GOLD COAST WATER SUPERVISION AT THE DEVELOPER'S COST.
5. ALL PIPES AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE "ACCEPTED PRODUCTS AND MATERIALS" LIST.
6. EACH ALLOTMENT SHALL BE SERVED BY A DN150 uPVC PROPERTY CONNECTION.
7. PROPERTY CONNECTIONS SHALL BE LOCATED WITHIN THE PROPERTY AS SHOWN IN THE DRAWINGS.
8. PROPERTY CONNECTION BRANCHES SHALL EXTEND INTO THE PROPERTY A MINIMUM OF 300mm AND A MAXIMUM OF 750mm.
9. WHERE PIPES ARE LAID IN FILL, THE FILLING SHALL BE CARRIED OUT IN LAYERS NOT EXCEEDING 300mm (LOOSE) IN DEPTH AND SHALL BE COMPACTED UNTIL THE COMPACTION IS NOT LESS THAN 95% OF THE MATERIALS MAXIMUM COMPACTION WHEN TESTED IN ACCORDANCE WITH A.S. 1289 (MODIFIED COMPACTION). TESTING SHALL BE CARRIED OUT AFTER EACH ALTERNATE LAYER. IN ALL SUCH CASES APPROVAL OF CONSTRUCTED SEWERS WILL NOT BE ISSUED BY GOLD COAST WATER UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED.
10. WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPER, BULKHEADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SEQ SEWER CODE.
11. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING SERVICES WITH RELEVANT AUTHORITIES BEFORE COMMENCING WORKS.
12. SEWERS SHALL BE DISUSED/ABANDONED IN ACCORDANCE WITH PROCEDURES SET OUT IN THE SEQ SEWER CODE.
13. BENCH MARK AND LEVELS TO AHD.
14. EXISTING ALLOTMENTS REQUIRING A PROPERTY CONNECTION FROM EXISTING LIVE SEWERS SHALL ENSURE WORKS ARE UNDERTAKEN BY AN APPROVED CONTRACTOR UNDER GOLD COAST WATER SUPERVISION AT THE DEVELOPER'S COST.

WATER RETICULATION

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SOUTH EAST QUEENSLAND WATER SUPPLY CODE SPECIFICATIONS AND STANDARDS.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL.
4. COVER ON MAINS FROM PERMANENT LEVEL TO BE AS SHOWN IN SEQ-WAT-1200-2.
5. CONDUITS TO BE INSTALLED IN ACCORDANCE WITH THE CITY OF GOLD COAST/GOLD COAST WATER STANDARD DRAWINGS.
6. A WATER METER SUPPLIED AT THE DEVELOPER'S COST, IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT IN ACCORDANCE WITH THE STANDARD DRAWING FOR THE SEQ-SP.
7. ALL MATERIALS USED IN THE WORKS SHALL COMPLY WITH THE SEQ-SP's ACCEPTED PRODUCTS AND MATERIALS LIST.
8. ALL CONCRETE FOOTPATHS TO BE CLEAR OF WATER MAINS.
9. TEST/CHLORINATION POINTS TO BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWING NO.SEQ-WAT-1410-1.
10. THE CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT TO THE RETICULATION SYSTEM.

PAVEMENT NOTES

1. BITUMEN, AGGREGATE SPRAY AND SPREAD RATES ARE TO BE SUBMITTED BY THE CONTRACTOR TO THE SUPERINTENDENT FOR SUBMISSION TO D.T.M.R FOR APPROVAL PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THE COMPACTED DEPTHS OF PAVEMENT SHOWN ON THE DRAWINGS ARE DESIGN DEPTHS ONLY AND MAY BE VARIED AFTER SUBGRADE TESTS ARE TAKEN. PAVEMENT DEPTHS SHALL BE SUBJECT TO APPROVAL BY D.T.M.R.
3. WHERE PAVEMENT IS BEING WIDENED THE THICKNESS OF BASE AND SUB-BASE SHALL MATCH EXISTING THICKNESS.
4. PAVEMENT MATERIAL SHALL CONFORM TO D.T.M.R. SPECIFICATIONS.

GENERAL NOTES SHEET 3 OF 3

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 002-005.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

GENERAL NOTES
SHEET 3 OF 3

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 004
Rev. No: B

FEATURE LEGEND

- OVERLAND FLOW PATH/SWALE
- CATCH DRAIN (NOT LINED)
- DIVERSION CHANNEL
- TABLE DRAIN
- STREAM INVERT
- CATCH DRAIN (CONCRETE LINED)
- SUBSOIL DRAINAGE
- SAWCUT
- SEDIMENT FENCE
- CHAINWIRE FENCE
- WOODEN FENCE
- BRIFEN WIRE SAFETY BARRIER
- GUARDRAIL (STANDARD)
- RETAINING WALL (PILED)
- RETAINING WALL (WITH FOOTINGS)
- RETAINING WALL
- ROCKBLOCK RETAINING WALL
- TOP OF BATTER / BERM
- NOISE WALL
- EDGE OF VEGETATION
- PROPERTY LINE
- PROPERTY LINE WITH FENCE
- PROPOSED KERB, FOOTPATH
- CONTROL LINE / CENTER OF ROAD
- RAILWAY (MAJOR)
- RAILWAY (MINOR)
- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE WITH FENCE
- EXISTING KERB, FOOTPATH
- EXISTING EDGE OF BITUMEN
- EXISTING RAILWAY (MAJOR)
- EXISTING RAILWAY (MINOR)
- LIMIT OF WORKS
- LIMIT OF SITE
- CATCHMENT BOUNDARY
- EXISTING CONTOURS
- DESIGN CONTOURS

SERVICES LEGEND

- PROPOSED RISING MAIN
- PROPOSED SEWER
- PROPOSED STORMWATER
- PROPOSED EXTERNAL STORMWATER
- PROPOSED ROOFWATER
- PROPOSED ROOFWATER
- PROPOSED SUBSOIL
- PROPOSED WATER
- PROPOSED RECYCLED WATER
- PROPOSED OIL
- PROPOSED FUEL
- PROPOSED GAS
- PROPOSED PIPELINE
- PROPOSED HIGH VOLTAGE ELECTRICITY
- PROPOSED UNDERGROUND ELECTRICITY
- PROPOSED OVERHEAD ELECTRICITY
- PROPOSED LIGHTING
- PROPOSED TELSTRA
- PROPOSED COMMUNICATIONS
- PROPOSED GAS, ELECT
- PROPOSED GAS, TELSTRA
- PROPOSED ELECT, TELSTRA
- PROPOSED GAS, ELECTRICITY, TELSTRA

- EXISTING RISING MAIN
- EXISTING SEWER
- EXISTING STORMWATER
- EXISTING ROOFWATER
- EXISTING SUBSOIL
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING OIL
- EXISTING FUEL
- EXISTING GAS
- EXISTING PIPELINE
- EXISTING HIGH VOLTAGE ELECTRICITY
- EXISTING UNDERGROUND ELECTRICITY
- EXISTING OVERHEAD ELECTRICITY
- EXISTING LIGHTING
- EXISTING TELSTRA
- EXISTING COMMUNICATIONS
- EXISTING GAS, ELECT
- EXISTING GAS, TELSTRA
- EXISTING ELECT, TELSTRA
- EXISTING GAS, ELECTRICITY, TELSTRA

- DEMOLISH RISING MAIN
- DEMOLISH SEWER
- DEMOLISH STORMWATER
- DEMOLISH SUBSOIL
- DEMOLISH WATER
- DEMOLISH OIL
- DEMOLISH FUEL
- DEMOLISH HIGH VOLTAGE ELECTRICITY
- DEMOLISH UNDERGROUND ELECTRICITY
- DEMOLISH OVERHEAD ELECTRICITY
- DEMOLISH LIGHTING
- DEMOLISH GAS
- DEMOLISH PIPELINE
- DEMOLISH TELSTRA
- DEMOLISH COMMUNICATIONS

SYMBOLS

- BK(A) BARRIER KERB (A)
- BK(B) BARRIER KERB (B)
- BK(G) BARRIER KERB (G)
- MK(D) MOUNTABLE KERB (D)
- SMK(C) SEMI MOUNTABLE KERB (C)
- ER(E) EDGE RESTRAINT (E)
- KER(F) KERB EDGE RESTRAINT (F)
- RK&C(H) ROLL TOP KERB & CHANNEL (H)
- BK&C(J) BARRIER KERB & CHANNEL (J)
- ERH KERB EDGE RESTRAINT (HIGH)
- ERL KERB EDGE RESTRAINT (LOW)
- CS(K/L) CHANNEL SECTION (K/L)
- PMB PRECAST MOTOR BED
- DD DISH DRAIN
- K&G KERB AND GUTTER
- K&T KERB AND TOE
- KO KERB ONLY
- MK MOUNTABLE KERB
- RK ROLL KERB
- EXISTING SIGN
- PROPOSED SIGN
- PROPOSED ROAD EDGE GUIDE POST
- BIN EXISTING BIN
- PB POST BOX
- T TELEPHONE BOX
- TELSTRA PIT
- MP TELSTRA MARKER POST
- WM WATER METER
- V WATER VALVE
- F.H. FIRE HYDRANT
- TAP WATER TAP
- WATER HYDRANT
- WATER TEE
- WATER REDUCER
- WATER ENDCAP
- WATER CONNECTION
- WATER CROSSING
- WATER DICL
- SEWER MANHOLE
- SEWER RODDING END
- SEWER BEND
- SEWER MAINTENANCE SHAFT
- SEWER 'T' END
- SEWER SLUICE VALVE
- SEWER PIT
- SEWER PUMP STATION
- TEMPORARY SEWER PUMP STATION
- SEWER / STORMWATER PIT NO/LINE
- SETOUT POINT
- OFFSET PIT WITH GRATE
- IN LINE PIT WITH GRATE
- JUNCTION PIT
- LETTERBOX PIT
- GRATED INLET PIT
- MANHOLE
- GULLY PIT (LIP INLINE) BARRIER KERB – GRADE
- GULLY PIT (LIP INLINE) BARRIER KERB – SAG
- GULLY PIT (LIP INLINE) ROLL TOP KERB – GRADE
- GULLY PIT (LIP INLINE) ROLL TOP KERB – SAG
- GULLY PIT (KERB INLINE) – GRADE
- GULLY PIT (KERB INLINE) – SAG
- INFILTRATION TRENCH
- HEADWALL
- GROSS POLLUTANT TRAP
- STORMWATER CHAMBER

- BUND
- POWER POLE
- POWER POLE WITH LIGHT
- LIGHT POLE
- STAY POLE
- LIGHT POLE WITH EXTENSION
- ELECTRICAL INSPECTION BOX
- ELECTRICAL POLE
- ELECTRICAL TURRET
- OTS TRAFFIC SIGNAL
- MRD MAIN ROADS PIT
- TANGENT POINT
- KRO KERB RETURN NO.
- PRAM RAMP
- GRAVEL ROCK CHECK DAM
- MESH & GRAVEL INLET FILTER
- STORMWATER INLET FILTER
- DIRECTION OF OVERLAND FLOW
- VEHICLE SHAKEDOWN
- GATE
- NOT IN SCOPE OF WORKS
- DEMOLITION
- PROPOSED CONCRETE FOOTPATH
- SCOUR PROTECTION
- TREES
- TADPOLE

LEGEND

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

LEGEND

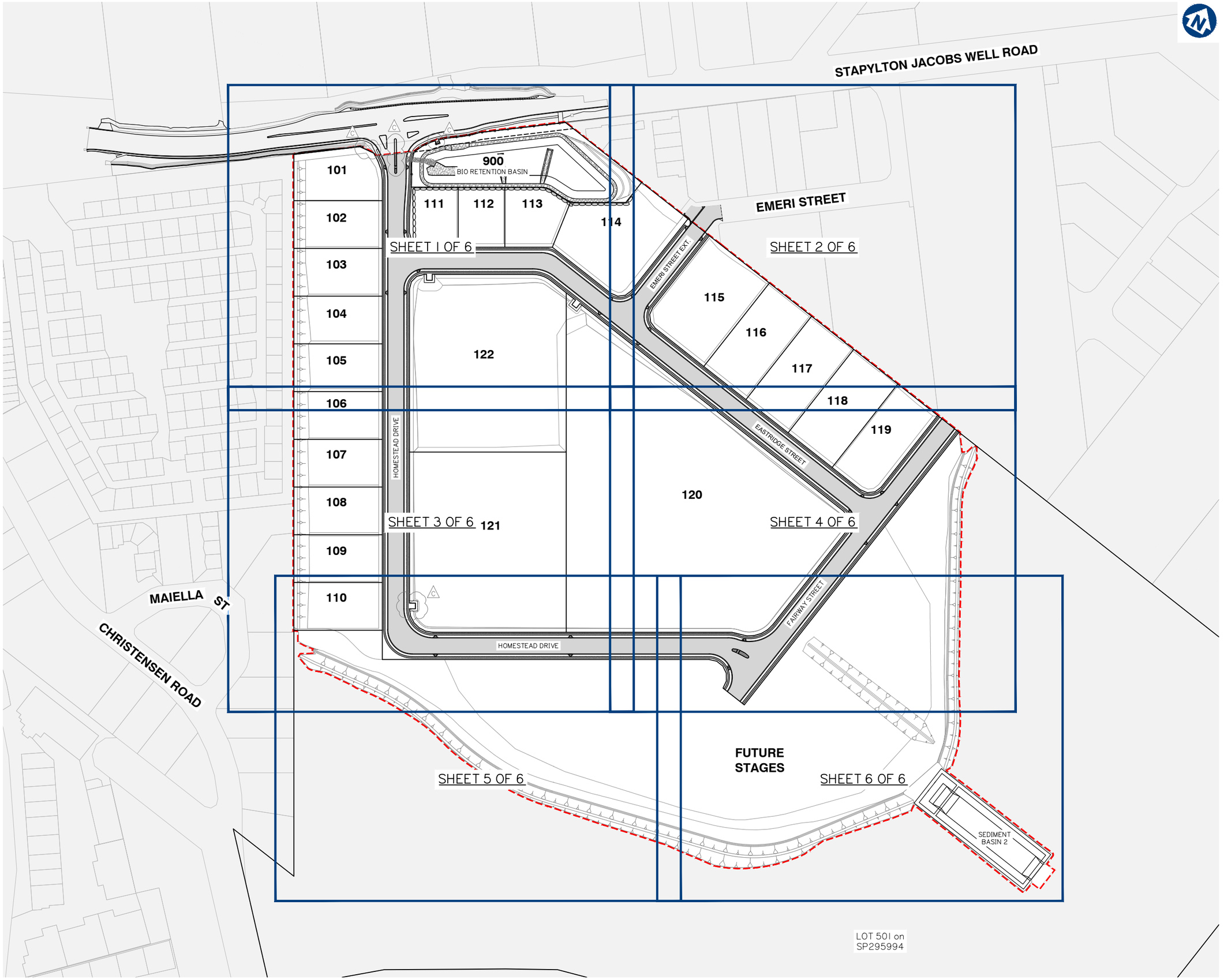
Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 005
Rev. No: B



KEY PLAN LAYOUT

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 006.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

KEY PLAN LAYOUT

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

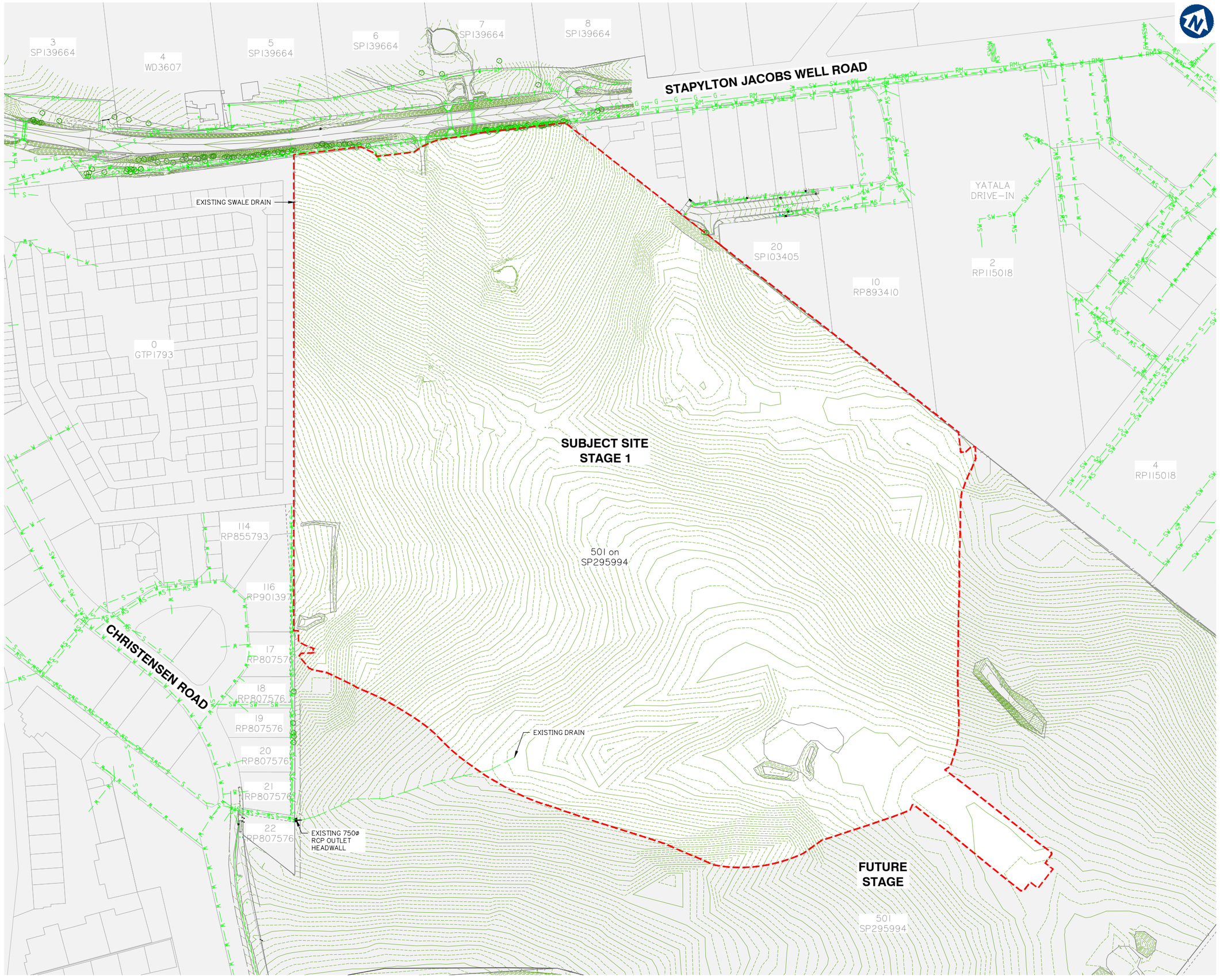
SCALE IN METRES

0 30 60 90 120 150

1:1500 (FULL SIZE A1)
1:3000 (HALF SIZE A3)

Scale at A1:	1:1500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 006
Rev. No: C



EXISTING SURFACE AND FEATURE PLAN

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 010.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

EXISTING SURFACE AND FEATURE PLAN

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

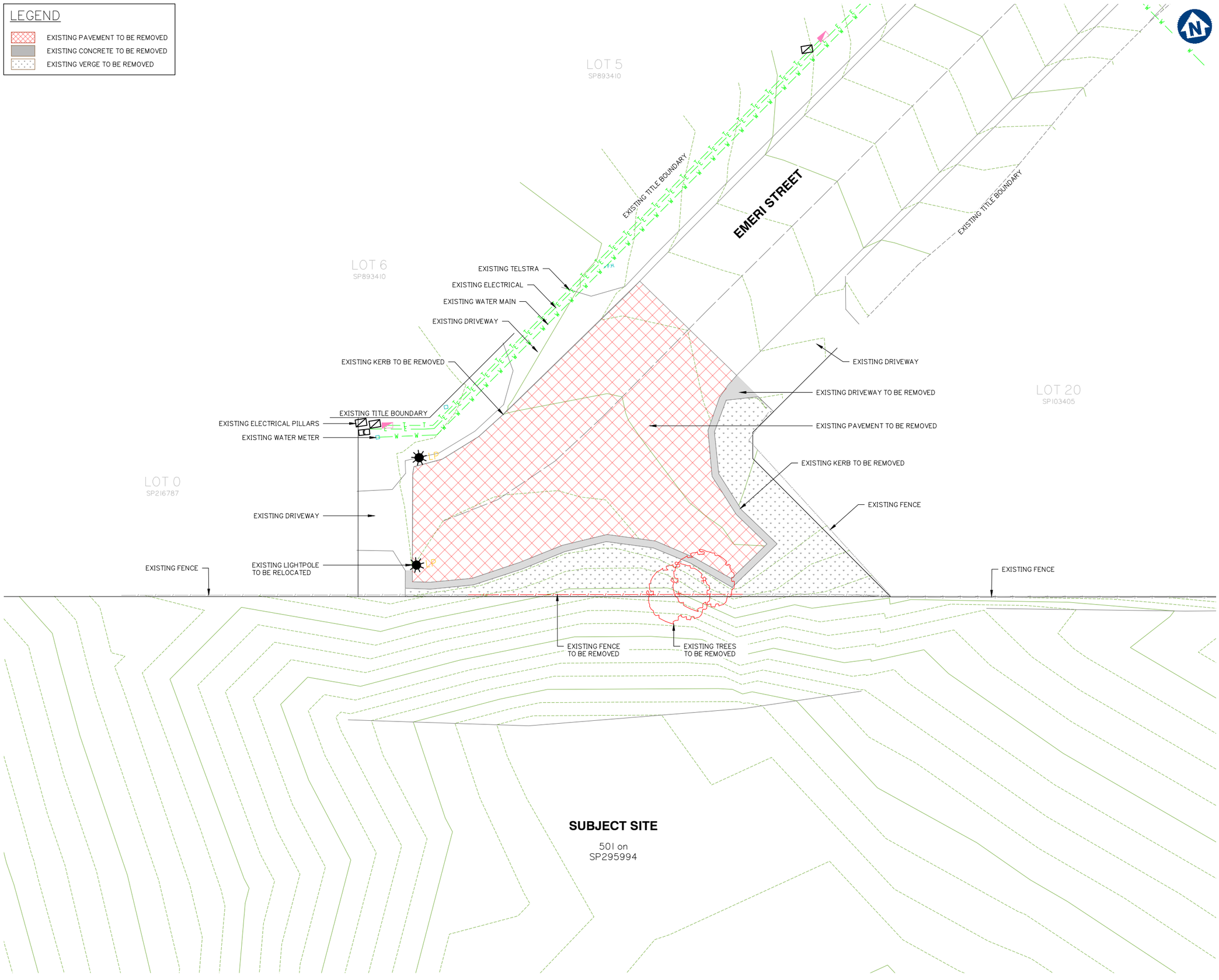
0 30 60 90 120 150

1:1500 (FULL SIZE A1)
1:3000 (HALF SIZE A3)

Scale at A1:	1:1500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 010

Rev. No: B



EMERI STREET DEMOLITION AND PROTECTION LAYOUT PLAN

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 020.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1 B

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

EMERI STREET DEMOLITION AND PROTECTION LAYOUT PLAN

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 3 6 9 12 15

1:150 (FULL SIZE A1)
1:300 (HALF SIZE A3)

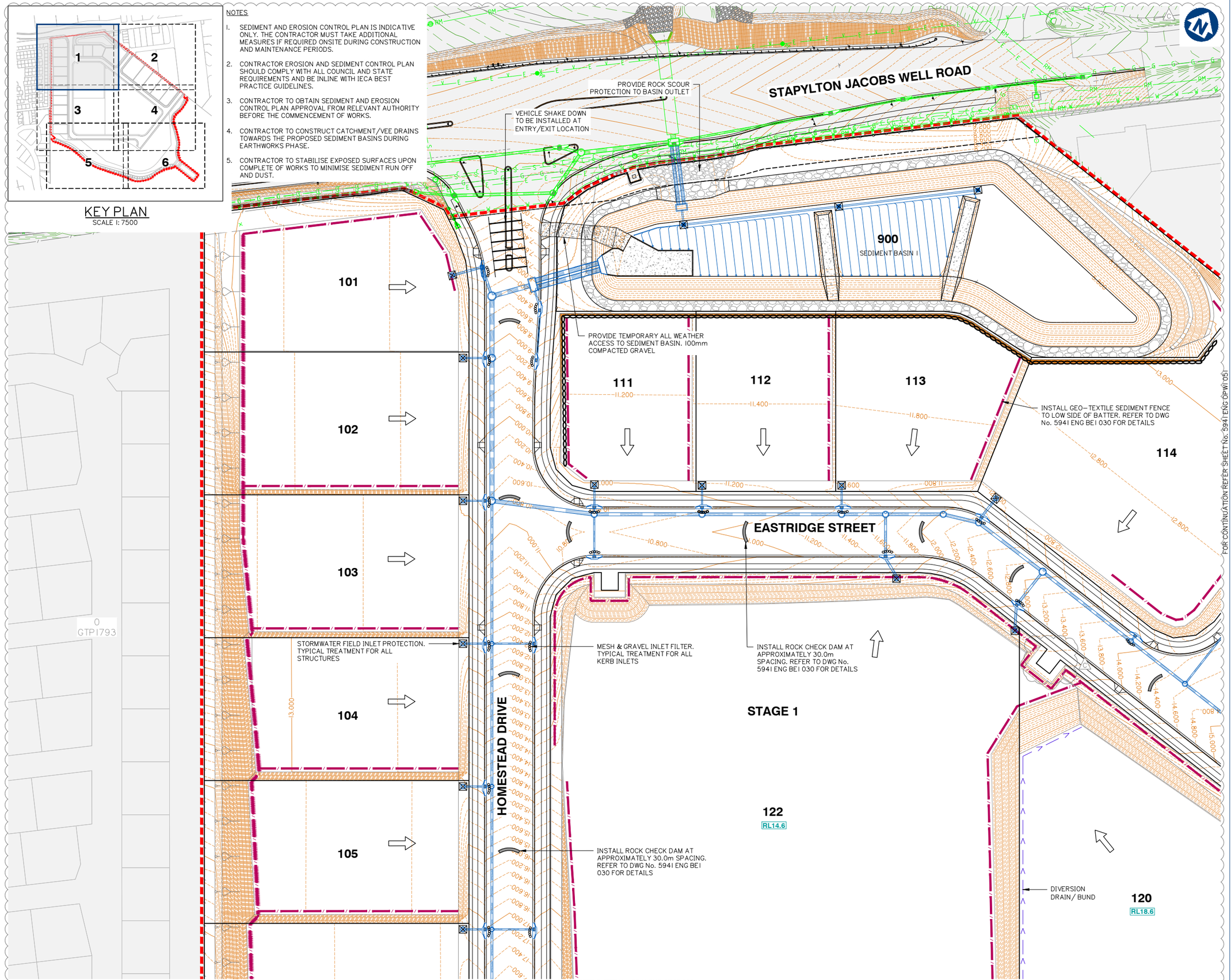
Scale at A1:	1:150
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 020
Rev. No: B

KEY PLAN
SCALE 1: 7500

NOTES

1. SEDIMENT AND EROSION CONTROL PLAN IS INDICATIVE ONLY. THE CONTRACTOR MUST TAKE ADDITIONAL MEASURES IF REQUIRED ONSITE DURING CONSTRUCTION AND MAINTENANCE PERIODS.
2. CONTRACTOR EROSION AND SEDIMENT CONTROL PLAN SHOULD COMPLY WITH ALL COUNCIL AND STATE REQUIREMENTS AND BE INLINE WITH IECA BEST PRACTICE GUIDELINES.
3. CONTRACTOR TO OBTAIN SEDIMENT AND EROSION CONTROL PLAN APPROVAL FROM RELEVANT AUTHORITY BEFORE THE COMMENCEMENT OF WORKS.
4. CONTRACTOR TO CONSTRUCT CATCHMENT/VEE DRAINS TOWARDS THE PROPOSED SEDIMENT BASINS DURING EARTHWORKS PHASE.
5. CONTRACTOR TO STABILISE EXPOSED SURFACES UPON COMPLETE OF WORKS TO MINIMISE SEDIMENT RUN OFF AND DUST.



SEDIMENT AND EROSION CONTROL PLAN SHEET 1 OF 6

Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 050-055.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

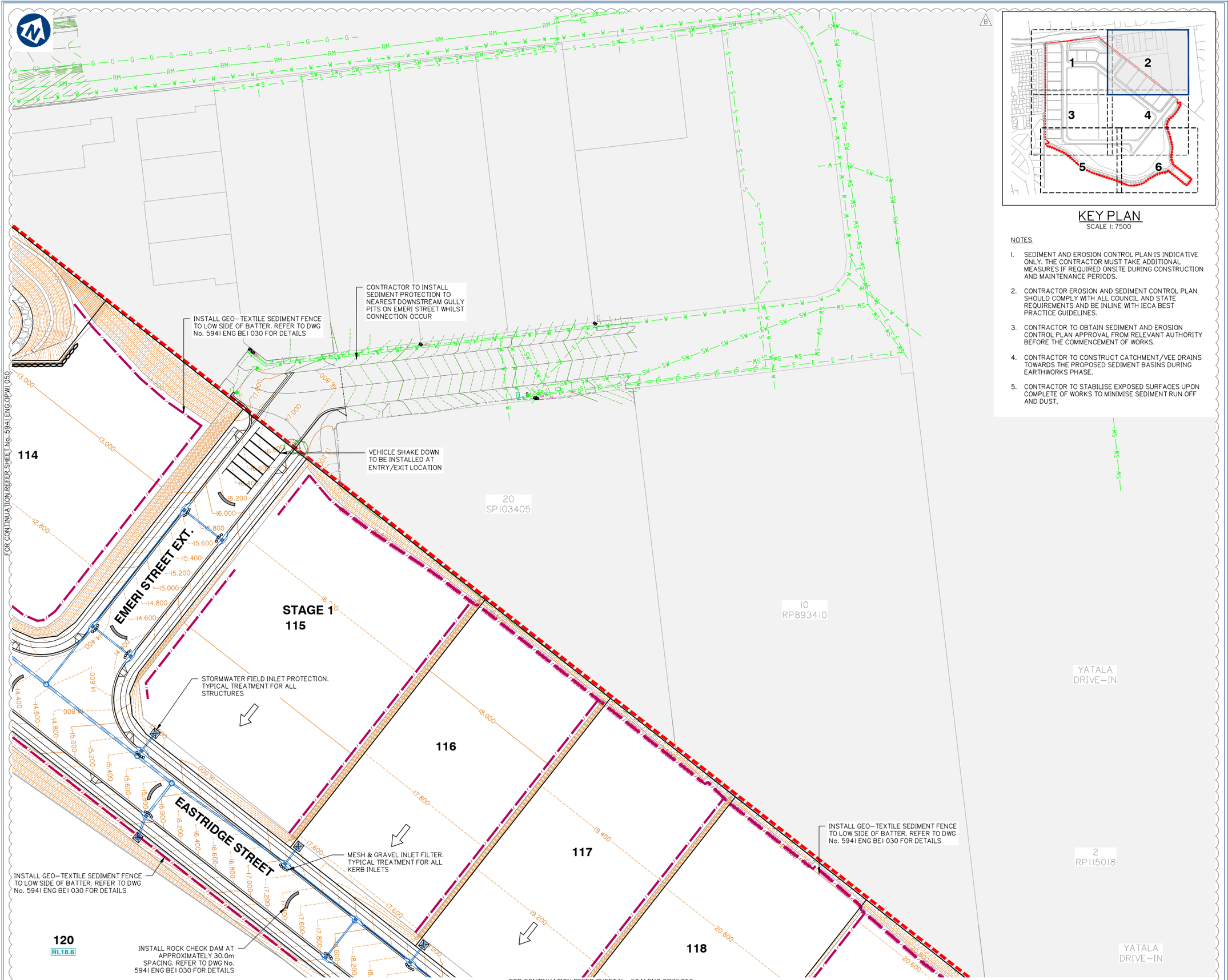
DRAWING TITLE
SEDIMENT AND EROSION CONTROL PLAN SHEET 1 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 050
Rev. No: C



KEY PLAN
SCALE 1: 7500

NOTES

1. SEDIMENT AND EROSION CONTROL PLAN IS INDICATIVE ONLY. THE CONTRACTOR MUST TAKE ADDITIONAL MEASURES IF REQUIRED ONSITE DURING CONSTRUCTION AND MAINTENANCE PERIODS.
2. CONTRACTOR EROSION AND SEDIMENT CONTROL PLAN SHOULD COMPLY WITH ALL COUNCIL AND STATE REQUIREMENTS AND BE INLINE WITH IECA BEST PRACTICE GUIDELINES.
3. CONTRACTOR TO OBTAIN SEDIMENT AND EROSION CONTROL PLAN APPROVAL FROM RELEVANT AUTHORITY BEFORE THE COMMENCEMENT OF WORKS.
4. CONTRACTOR TO CONSTRUCT CATCHMENT/VEE DRAINS TOWARDS THE PROPOSED SEDIMENT BASINS DURING EARTHWORKS PHASE.
5. CONTRACTOR TO STABILISE EXPOSED SURFACES UPON COMPLETE OF WORKS TO MINIMISE SEDIMENT RUN OFF AND DUST.

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: B
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
SEDIMENT AND EROSION CONTROL PLAN SHEET 2 OF 6

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

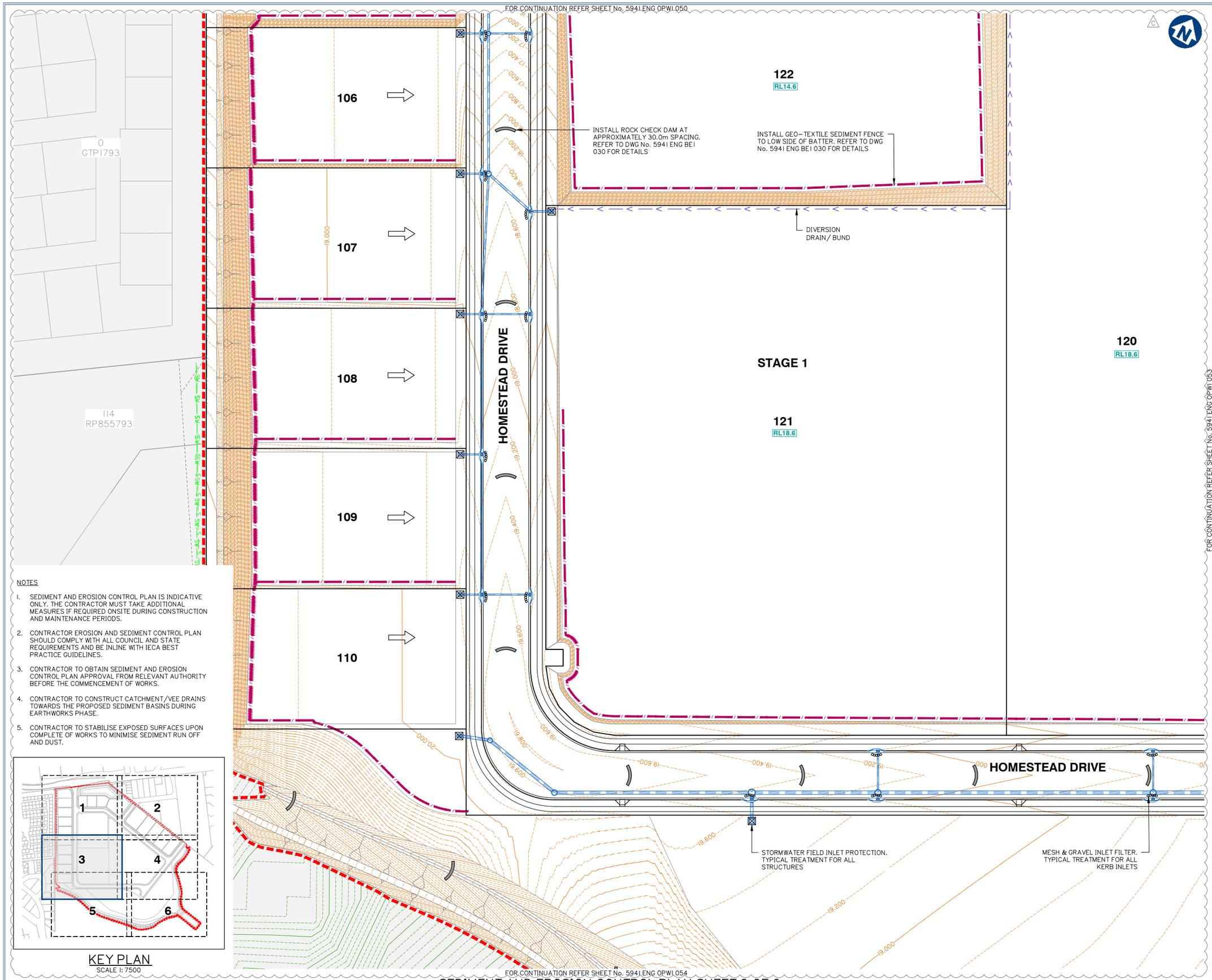
Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 051
Rev. No: B

SEDIMENT AND EROSION CONTROL PLAN SHEET 2 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 050-055.dwg

FOR CONTINUATION REFER SHEET No. 5941 ENG OPW1 050



NOTES

1. SEDIMENT AND EROSION CONTROL PLAN IS INDICATIVE ONLY. THE CONTRACTOR MUST TAKE ADDITIONAL MEASURES IF REQUIRED ONSITE DURING CONSTRUCTION AND MAINTENANCE PERIODS.
2. CONTRACTOR EROSION AND SEDIMENT CONTROL PLAN SHOULD COMPLY WITH ALL COUNCIL AND STATE REQUIREMENTS AND BE INLINE WITH IECA BEST PRACTICE GUIDELINES.
3. CONTRACTOR TO OBTAIN SEDIMENT AND EROSION CONTROL PLAN APPROVAL FROM RELEVANT AUTHORITY BEFORE THE COMMENCEMENT OF WORKS.
4. CONTRACTOR TO CONSTRUCT CATCHMENT/VEE DRAINS TOWARDS THE PROPOSED SEDIMENT BASINS DURING EARTHWORKS PHASE.
5. CONTRACTOR TO STABILISE EXPOSED SURFACES UPON COMPLETE OF WORKS TO MINIMISE SEDIMENT RUN OFF AND DUST.

KEY PLAN
SCALE 1: 7500

FOR CONTINUATION REFER SHEET No. 5941 ENG OPW1 054

SEDIMENT AND EROSION CONTROL PLAN SHEET 3 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 050-055.dwg

FOR CONTINUATION REFER SHEET No. 5941 ENG OPW1 053

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: C

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEDIMENT AND EROSION CONTROL PLAN SHEET 3 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

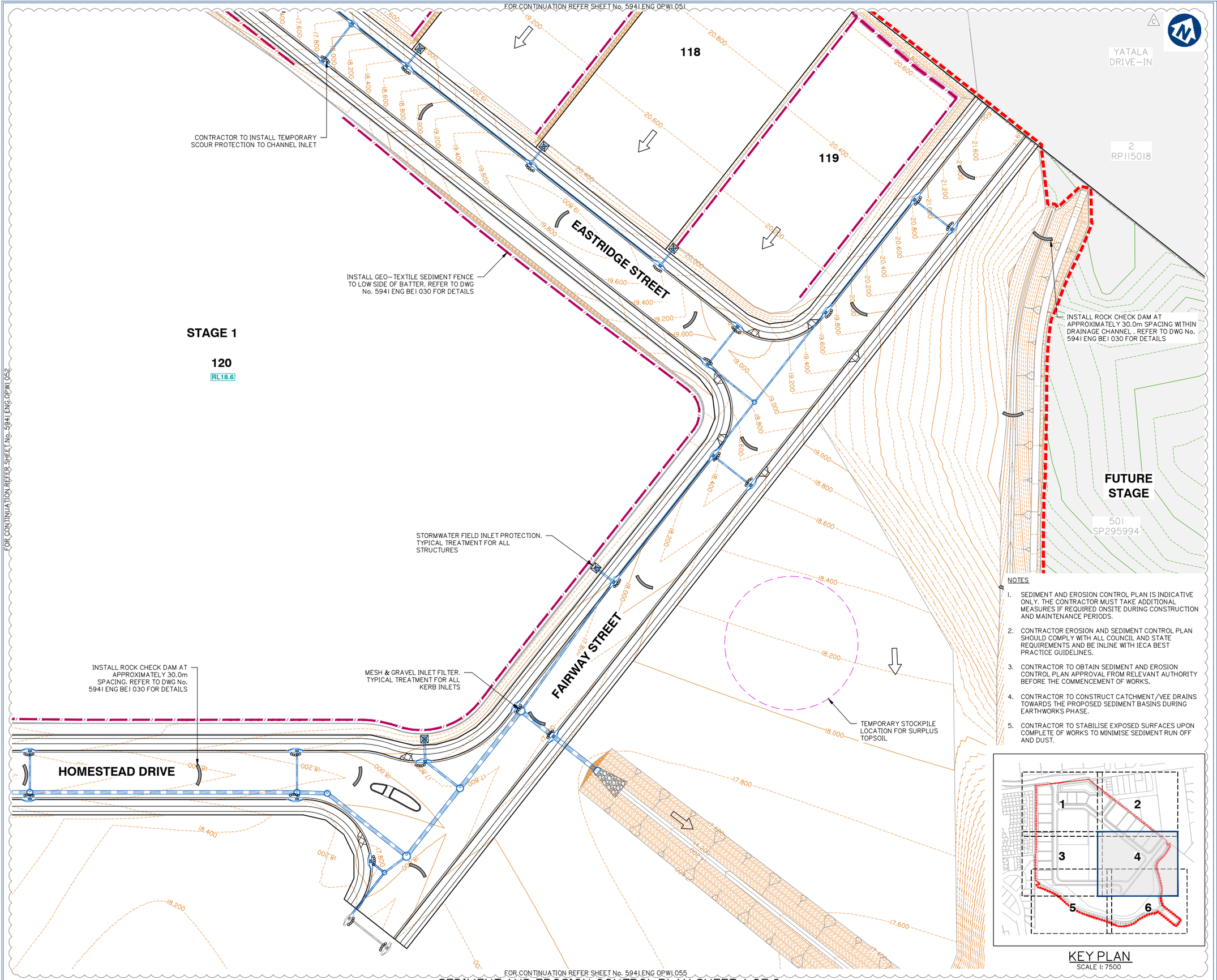
0 10 20 30 40 50

1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 052
Rev. No: C

FOR CONTINUATION REFER SHEET No. 5941 ENG OPW1 051



NOTES

1. SEDIMENT AND EROSION CONTROL PLAN IS INDICATIVE ONLY. THE CONTRACTOR MUST TAKE ADDITIONAL MEASURES IF REQUIRED ONSITE DURING CONSTRUCTION AND MAINTENANCE PERIODS.
2. CONTRACTOR EROSION AND SEDIMENT CONTROL PLAN SHOULD COMPLY WITH ALL COUNCIL AND STATE REQUIREMENTS AND BE INLINE WITH IECA BEST PRACTICE GUIDELINES.
3. CONTRACTOR TO OBTAIN SEDIMENT AND EROSION CONTROL PLAN APPROVAL FROM RELEVANT AUTHORITY BEFORE THE COMMENCEMENT OF WORKS.
4. CONTRACTOR TO CONSTRUCT CATCHMENT/VEE DRAINS TOWARDS THE PROPOSED SEDIMENT BASINS DURING EARTHWORKS PHASE.
5. CONTRACTOR TO STABILISE EXPOSED SURFACES UPON COMPLETE OF WORKS TO MINIMISE SEDIMENT RUN OFF AND DUST.

KEY PLAN
SCALE 1: 7500

FOR CONTINUATION REFER SHEET No. 5941 ENG OPW1 055

SEDIMENT AND EROSION CONTROL PLAN SHEET 4 OF 6

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
SEDIMENT AND EROSION CONTROL PLAN SHEET 4 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

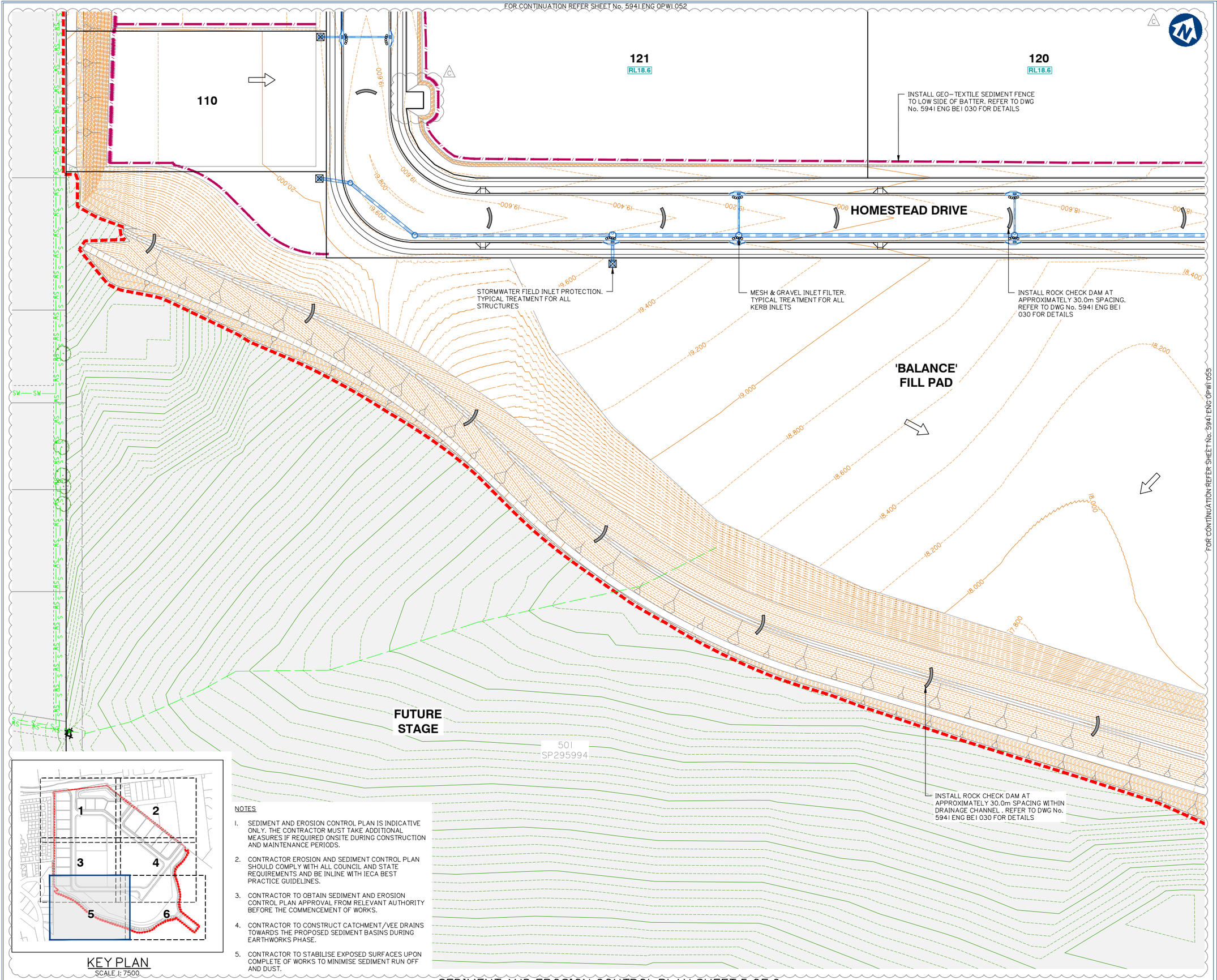
Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 053
Rev. No: C

FOR CONTINUATION REFER SHEET No. 5941 ENG OPW1 052

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 050-055.dwg

FOR CONTINUATION REFER SHEET No. 5941 ENG OPW1 052



KEY PLAN
SCALE 1: 7500

NOTES

1. SEDIMENT AND EROSION CONTROL PLAN IS INDICATIVE ONLY. THE CONTRACTOR MUST TAKE ADDITIONAL MEASURES IF REQUIRED ONSITE DURING CONSTRUCTION AND MAINTENANCE PERIODS.
2. CONTRACTOR EROSION AND SEDIMENT CONTROL PLAN SHOULD COMPLY WITH ALL COUNCIL AND STATE REQUIREMENTS AND BE INLINE WITH IECA BEST PRACTICE GUIDELINES.
3. CONTRACTOR TO OBTAIN SEDIMENT AND EROSION CONTROL PLAN APPROVAL FROM RELEVANT AUTHORITY BEFORE THE COMMENCEMENT OF WORKS.
4. CONTRACTOR TO CONSTRUCT CATCHMENT/VEE DRAINS TOWARDS THE PROPOSED SEDIMENT BASINS DURING EARTHWORKS PHASE.
5. CONTRACTOR TO STABILISE EXPOSED SURFACES UPON COMPLETE OF WORKS TO MINIMISE SEDIMENT RUN OFF AND DUST.

SEDIMENT AND EROSION CONTROL PLAN SHEET 5 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 050-055.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

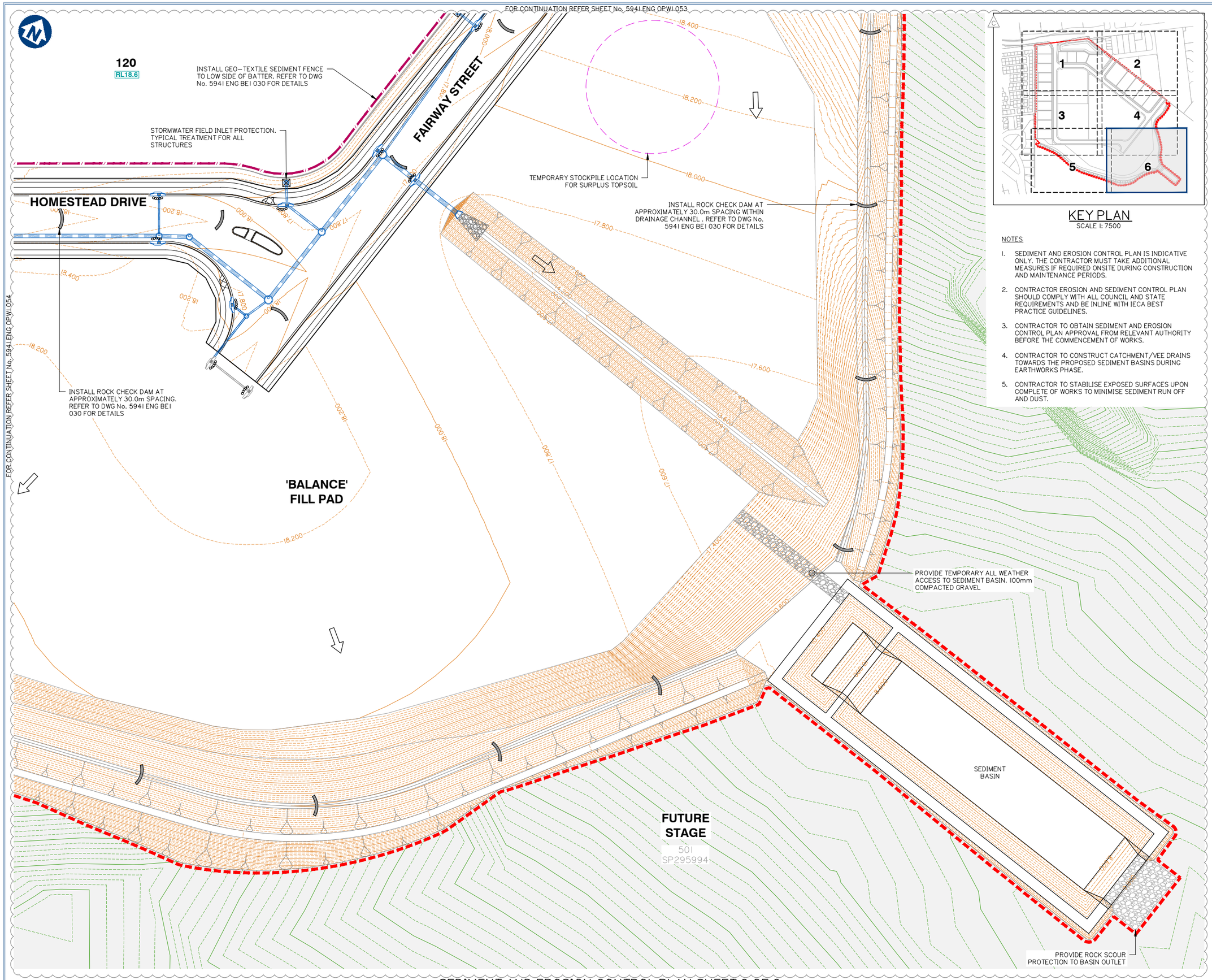
DRAWING TITLE
SEDIMENT AND EROSION CONTROL PLAN SHEET 5 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 054
Rev. No: C



KEY PLAN
SCALE 1: 7500

NOTES

1. SEDIMENT AND EROSION CONTROL PLAN IS INDICATIVE ONLY. THE CONTRACTOR MUST TAKE ADDITIONAL MEASURES IF REQUIRED ONSITE DURING CONSTRUCTION AND MAINTENANCE PERIODS.
2. CONTRACTOR EROSION AND SEDIMENT CONTROL PLAN SHOULD COMPLY WITH ALL COUNCIL AND STATE REQUIREMENTS AND BE INLINE WITH IECA BEST PRACTICE GUIDELINES.
3. CONTRACTOR TO OBTAIN SEDIMENT AND EROSION CONTROL PLAN APPROVAL FROM RELEVANT AUTHORITY BEFORE THE COMMENCEMENT OF WORKS.
4. CONTRACTOR TO CONSTRUCT CATCHMENT/VEE DRAINS TOWARDS THE PROPOSED SEDIMENT BASINS DURING EARTHWORKS PHASE.
5. CONTRACTOR TO STABILISE EXPOSED SURFACES UPON COMPLETE OF WORKS TO MINIMISE SEDIMENT RUN OFF AND DUST.

SEDIMENT AND EROSION CONTROL PLAN SHEET 6 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 050-055.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

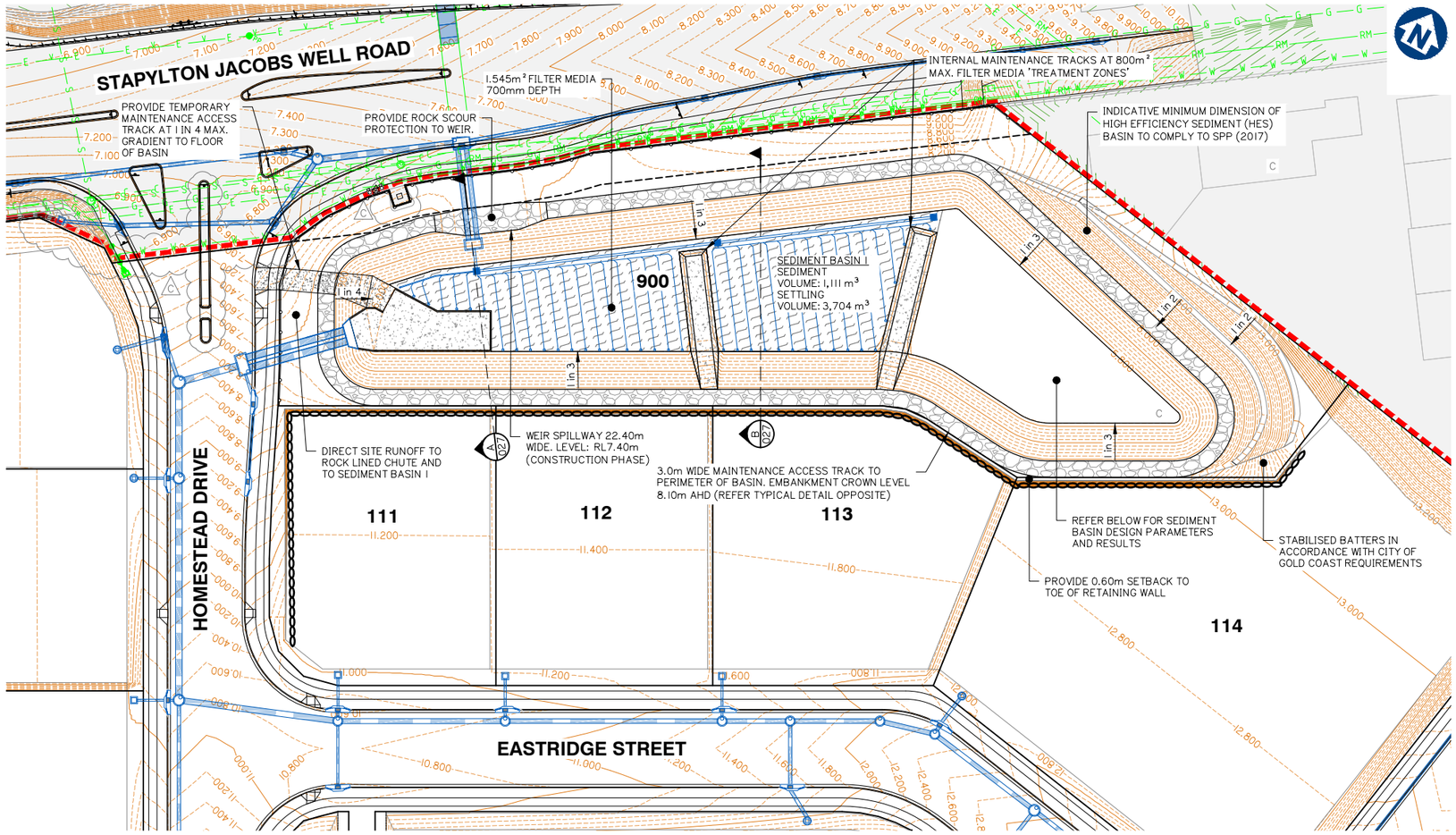
DRAWING TITLE
SEDIMENT AND EROSION CONTROL PLAN SHEET 6 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 055
Rev. No: C



CONSTRUCTION PHASE SEDIMENT BASIN 1 LAYOUT

SCALE 1:500 (A1)

NOTES:

1. ALL ALLOTMENTS TO GRADE TOWARDS THE ROAD AT MINIMUM 1:150 (0.67%) FALL, EXCEPT IF NOTED OTHERWISE.
2. SEDIMENT AND EROSION CONTROL PLAN IS INDICATIVE ONLY. THE CONTRACTOR MUST TAKE ADDITIONAL MEASURES IF REQUIRED ON SITE DURING CONSTRUCTION AND MAINTENANCE PERIODS.
3. CONTRACTOR EROSION AND SEDIMENT CONTROL PLAN SHOULD COMPLY WITH ALL CITY OF GOLD COAST COUNCIL AND STATE REQUIREMENTS AND TO BE IN ACCORDANCE WITH INDUSTRY BEST PRACTICE GUIDELINES.
4. CONTRACTOR TO OBTAIN SEDIMENT AND EROSION CONTROL PLAN APPROVAL FROM RELEVANT AUTHORITY BEFORE THE COMMENCEMENT OF WORKS.

SEDIMENT BASIN DESIGN

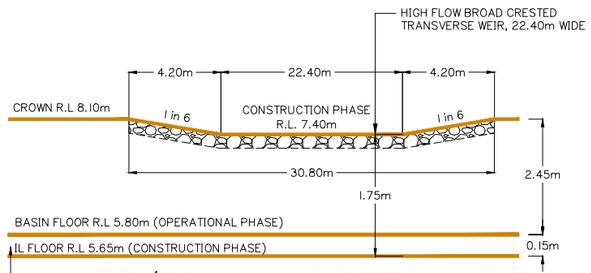
BASIN ID	SELECT DURATION OF CATCHMENT DISTURBANCE	IS DEWATERING OF TRENCHES REQUIRED?	EQUIPMENT LEASE OR PURCHASE?	SELECT CATCHMENT SCALE	DO ALL FLOWS ENTER BASIN AT SINGLE POINT?	BASIN TYPE	DOSING EQUIPMENT
No. 1	> 12 MONTHS	NO	LEASE	> 5Ha	NO	TYPE A	IFOD–RAIN

BASIN ID	CATCHMENT AREA	DESIGN EVENT	$I_{1 yr, 24 hr}$	WATER TEMPERATURE	K_s	SETTLING ZONE DEPTH (D_s)	W:L	OPTIMUM LOW–FLOW DECANT RATE	SELECTED LOW–FLOW DECANT RATE (Q_A)	MIN SETTLING ZONE VOLUME (Min V_s)	MIN SETTLING ZONE SURFACE AREA (Min A_s)	LIMITING CRITERIA
	(Ha)	(1: X YEARS)	(mm/hr)	(°C)	(s/m)	(m)	(1:X)	(L/s/Ha)	(L/s/Ha)	(m^3)	(m^2)	
No. 1	15.071	1	4.53	20	11150	1.3	4.8	9	9	3704	1512	VOLUME

BASIN ID	SETTLING ZONE		SCOUR VELOCITY	FREE WATER ZONE		SEDIMENT STORAGE ZONE		OVERALL DIMENSIONS RELATIVE TO SPILLWAY CREST (EXCL. FOREBAY)			
	ACTUAL SETTLING ZONE VOLUME (V_s)	ACTUAL SETTLING ZONE AREA (A_s)		DEPTH OF FREE WATER ZONE	VOLUME OF FREE WATER ZONE	SEDIMENT STORAGE VOLUME	SEDIMENT STORAGE DEPTH (APPROX.)	BATTER	WIDTH	LENGTH	DEPTH
	(m^3)	(m^2)	(m/s)	(m)	(m^3)	(m^3)	(m)	(1:X)	(m)	(m)	(m)
No. 1	3704	2827	0.009	0.22	370	1111	0.47	3	28.2	135.4	2.00

BASIN ID	SPILLWAY										
	BASIN DESIGN LIFE	DESIGN ARI	C_{10}	C	tc	I	Q	HEAD OVER SPILLWAY	SPILLWAY CREST LENGTH	SPILLWAY CREST RL	MIN EMBANKMENT RL
		yr				(mm/hr)	(m^3/s)	(m)	(m)	(m)	(m)
No. 1	> 12 MONTHS	1:50	0.85	0.98	20.00	160.00	6.55	0.25	30.80	7.40	8.10

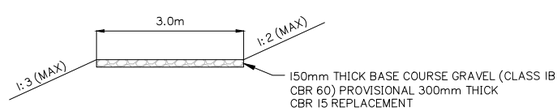
BASIN ID	SETTLING ZONE (incl. sediment storage)				FOREBAY				HYDRAULIC CONTROLS			
	VOLUME (m^3)	LENGTH (m)	WIDTH (m)	DEPTH (m)	VOLUME (m^3)	LENGTH (m)	WIDTH (m)	DEPTH (m)	SPILLWAY CREST LENGTH (m)	SPILLWAY CREST (RL)	EMBANKMENT (RL)	LEVEL SPREADER CREST (RL)
No.1	5185.2	135.4	28.2	2.00	763.40	13.5	28.2	2.00	30.8	7.40	8.10	7.60



WEIR / SPILLWAY – TYPICAL ELEVATION

N.T.S

IF FURTHER SEDIMENT STORAGE VOLUME IS REQUIRED, CONTRACTOR SHALL SEEK THE APPROVAL OF THE SUPERINTENDENT TO EXCAVATE TO SUBGRADE LEVEL OF THE FUTURE BIO–RETENTION BASIN FILTER LAYER (TO A LEVEL NOT LOWER THAN RL 4.80m)



MAINTENANCE ACCESS TRACK – TYPICAL SECTION

N.T.S

CONSTRUCTION PHASE SEDIMENT BASIN 1 LAYOUT

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 056-059.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

CONSTRUCTION PHASE SEDIMENT BASIN 1 LAYOUT

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

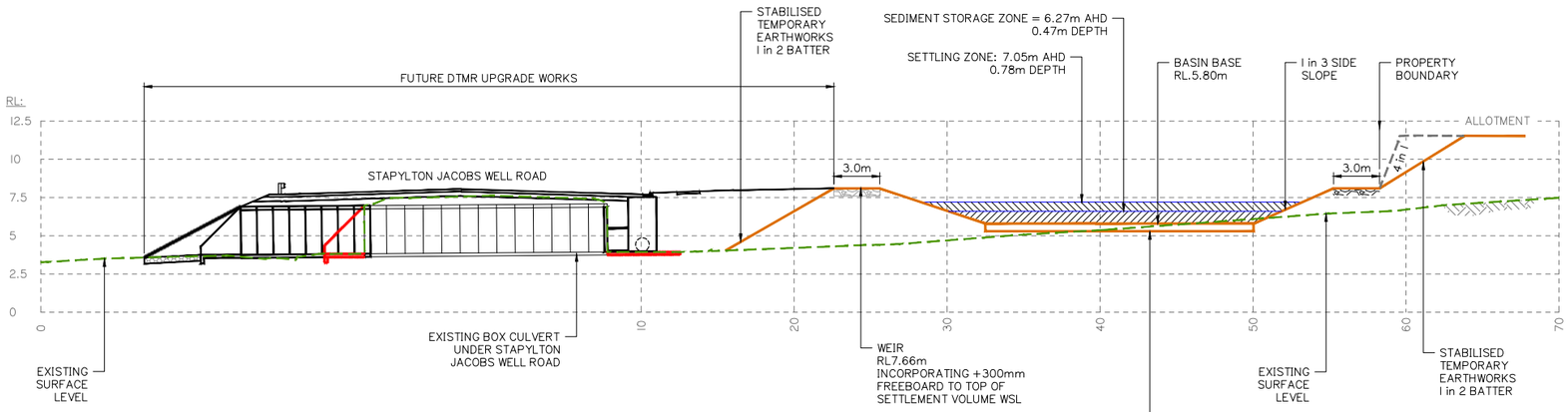
0 10 20 30 40 50

1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

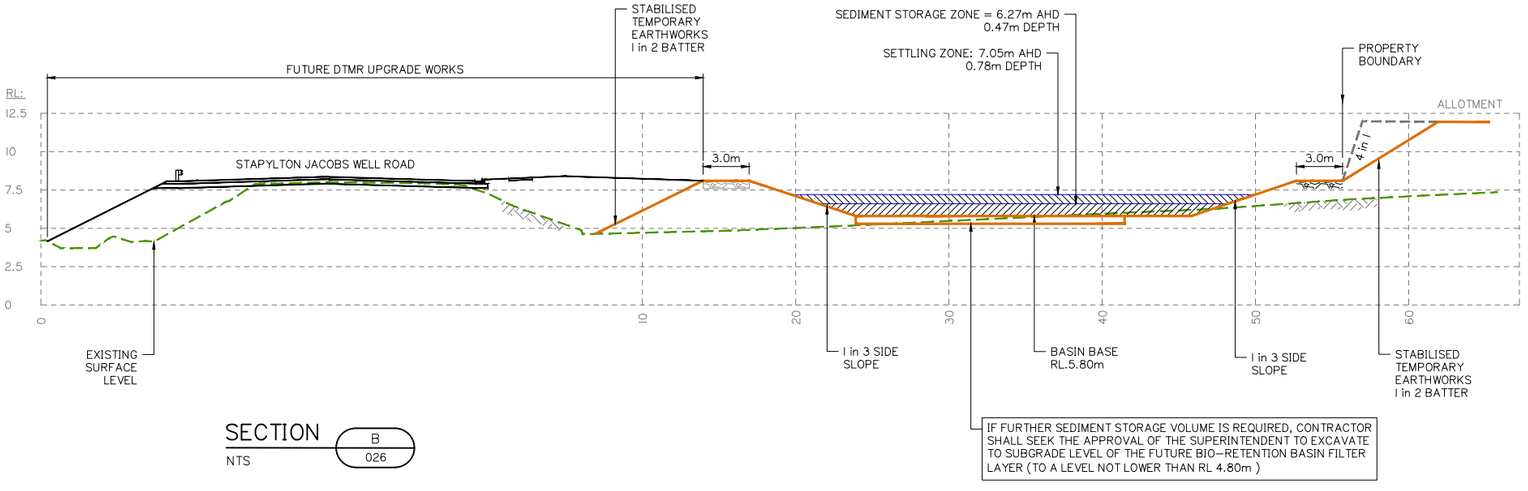
Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 056

Rev. No: C



SECTION A
NTS 026



SECTION B
NTS 026

CONSTRUCTION PHASE SEDIMENT BASIN 1 SECTIONS

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 056-059.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1 (B)

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
CONSTRUCTION PHASE SEDIMENT BASIN 1 SECTIONS

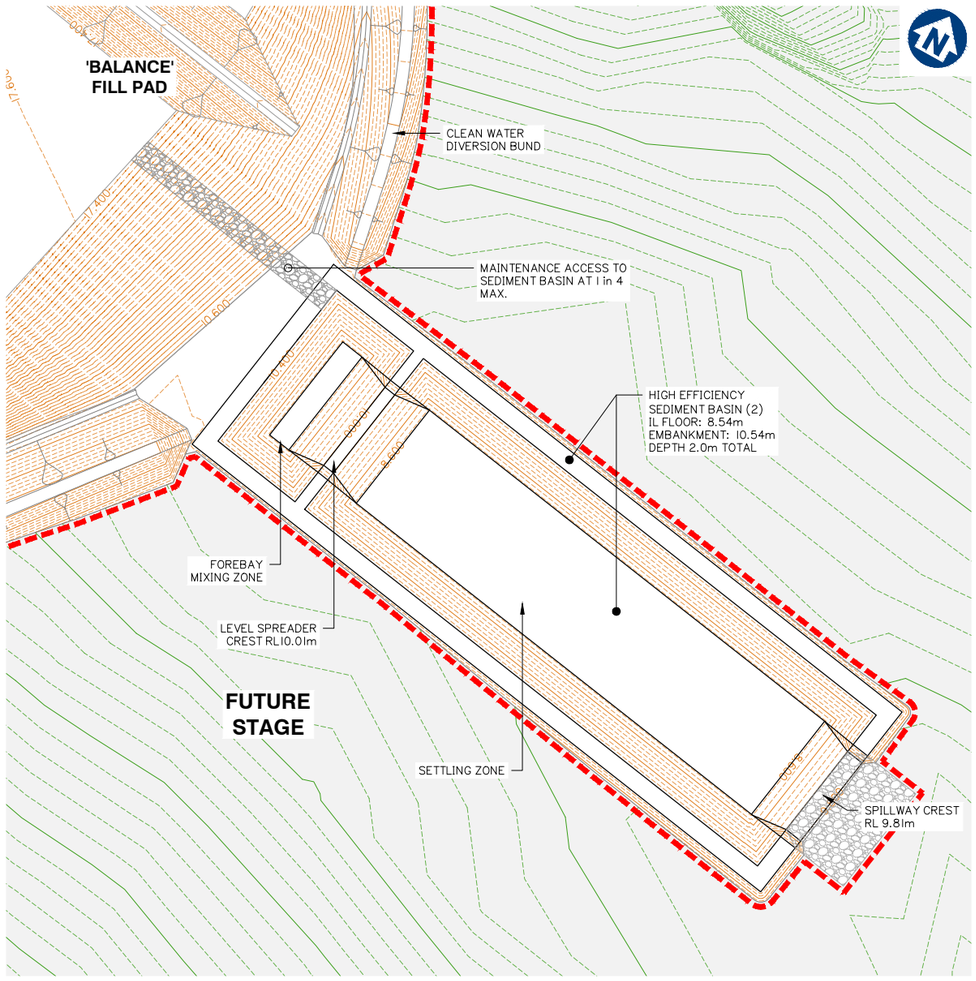
Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT TO SCALE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 057
Rev. No: B



CONSTRUCTION PHASE SEDIMENT BASIN 2 LAYOUT

SCALE 1:500 (A1)

DESIGN SEDIMENT BASIN PARAMETERS

BASIN ID	SETTLING ZONE (incl. sediment storage)				FOREBAY				HYDRAULIC CONTROLS			
	VOLUME (m^3)	LENGTH (m)	WIDTH (m)	DEPTH (m)	VOLUME (m^3)	LENGTH (m)	WIDTH (m)	DEPTH (m)	SPILLWAY CREST LENGTH (m)	SPILLWAY CREST (RL)	EMBANKMENT (RL)	LEVEL SPREADER CREST (RL)
No.2	4113.1	94.0	31.3	2.00	589.57	9.4	31.3	2.00	19.1	9.81	10.54	10.01

BASIN ID	SELECT DURATION OF CATCHMENT DISTURBANCE	IS DEWATERING OF TRENCHES REQUIRED?	EQUIPMENT LEASE OR PURCHASE?	SELECT CATCHMENT SCALE	DO ALL FLOWS ENTER BASIN AT SINGLE POINT?	BASIN TYPE	DOSING EQUIPMENT	DEWATERING EQUIPMENT
No. 2	> 12 MONTHS	NO	LEASE	> 5Ha	NO	TYPE A	IFOD–RAIN	2.00

BASIN ID	CATCHMENT AREA	DESIGN EVENT	$I_{x\ yr,\ 24\ hr}$	WATER TEMPERATURE	K_s	SETTLING ZONE DEPTH (D_s)	W:L	OPTIMUM LOW–FLOW DECANT RATE	SELECTED LOW–FLOW DECANT RATE (Q_A)	MIN SETTLING ZONE VOLUME (Min V_s)	MIN SETTLING ZONE SURFACE AREA (Min A_s)	LIMITING CRITERIA
	(Ha)	(1: X YEARS)	(mm/hr)	(°C)	(s/m)	(m)	(1: X)	(L/s/Ha)	(L/s/Ha)	(m^3)	(m^2)	
No. 2	11.955	1	4.53	20	11150	1.3	3	13	9	2938	1200	VOLUME

BASIN ID	SETTLING ZONE			FREE WATER ZONE		SEDIMENT STORAGE ZONE		OVERALL DIMENSIONS RELATIVE TO SPILLWAY CREST (EXCL. FOREBAY)			
	ACTUAL SETTLING ZONE VOLUME (V_s)	ACTUAL SETTLING ZONE AREA (A_s)	SCOUR VELOCITY	DEPTH OF FREE WATER ZONE	VOLUME OF FREE WATER ZONE	SEDIMENT STORAGE VOLUME	SEDIMENT STORAGE DEPTH (APPROX.)	BATTER	WIDTH	LENGTH	DEPTH
	(m^3)	(m^2)	(m/s)	(m)	(m^3)	(m^3)	(m)	(1: X)	(m)	(m)	(m)
No. 2	2938	2260	0.007	0.22	294	881	0.48	3	31.3	94.0	2.00

BASIN ID	SPILLWAY										
	BASIN DESIGN LIFE	DESIGN ARI	C_{10}	C	tc	I	Q	HEAD OVER SPILLWAY	SPILLWAY CREST LENGTH	SPILLWAY CREST RL	MIN EMBANKMENT RL
		yr				(mm/hr)	(m^3/s)	(m)	(m)	(m)	(m)
No. 2	> 12 MONTHS	1: 50	0.88	1.01	25.00	143.00	4.81	0.28	19.10	9.81	10.54

CONSTRUCTION PHASE SEDIMENT BASIN 2 LAYOUT

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 056-059.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

CONSTRUCTION PHASE SEDIMENT BASIN 2 LAYOUT

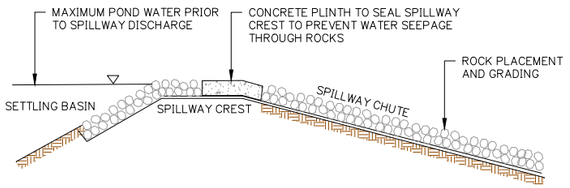
Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 10 20 30 40 50

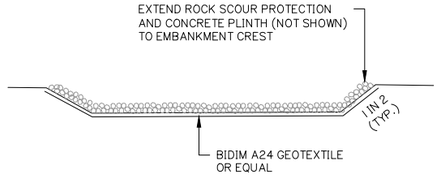
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020
Drawing No:	5941 ENG OPW1 058
Rev. No:	B



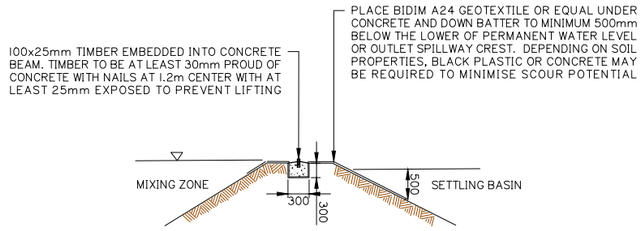
OUTLET SPILLWAY DETAILS TYPICAL CROSS SECTION

NOT TO SCALE



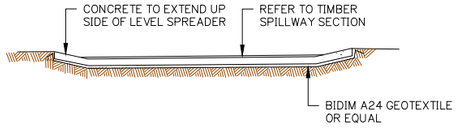
OUTLET SPILLWAY DETAILS TYPICAL LONGITUDINAL SECTION

NOT TO SCALE



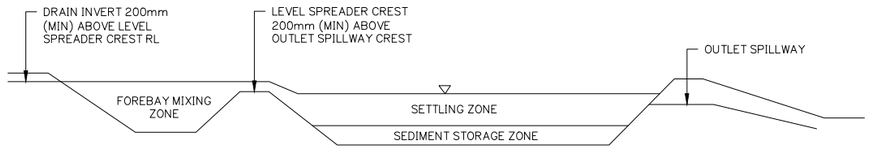
LEVEL SPREADER DETAILS TYPICAL CROSS SECTION

NOT TO SCALE



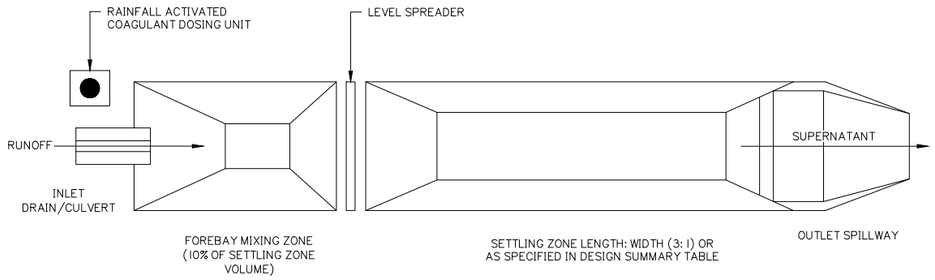
LEVEL SPREADER DETAILS TYPICAL LONG SECTION

NOT TO SCALE



TYPE A SEDIMENT BASIN LONGITUDINAL SECTION (TYP.)

NOT TO SCALE



TYPE A SEDIMENT BASIN PLAN VIEW (TYP.)

NOT TO SCALE

CONSTRUCTION PHASE SEDIMENT BASIN 2 SECTIONS

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 056-059.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

CONSTRUCTION PHASE SEDIMENT BASIN 2 SECTIONS

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

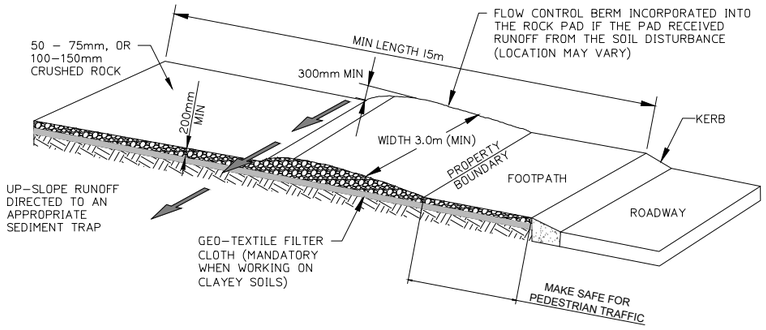
SCALE IN METRES

NOT TO SCALE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

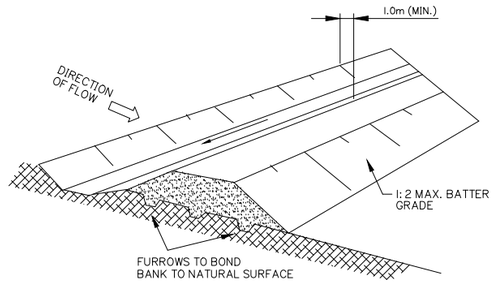
Drawing No: 5941 ENG OPW1 059

Rev. No: B



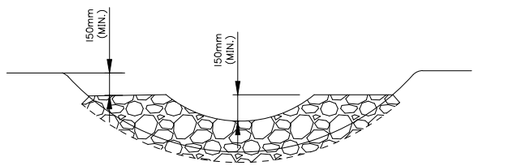
ENTRY/EXIT PAD FOR CONSTRUCTION SITE

NOT TO SCALE



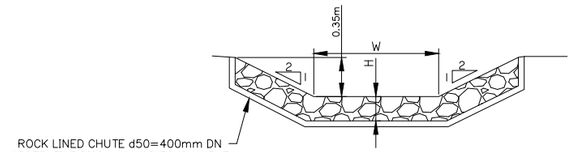
DIVERSION DRAIN

NOT TO SCALE

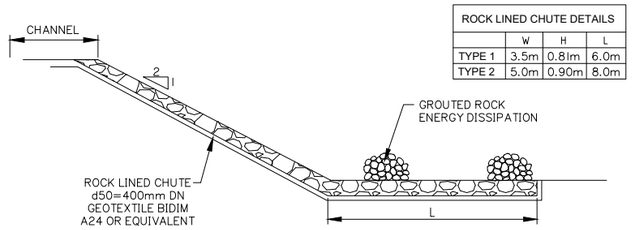


ROCK CHECK DAM

NOT TO SCALE

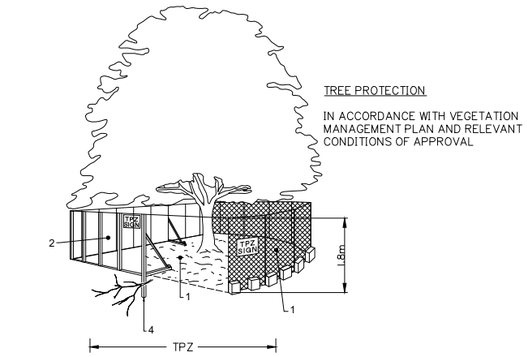


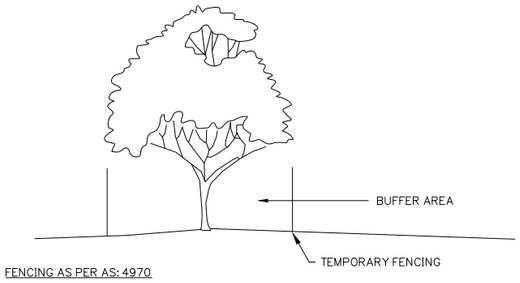
ROCK LINED CHUTE DETAILS			
	W	H	L
TYPE 1	3.5m	0.81m	6.0m
TYPE 2	5.0m	0.90m	8.0m



ROCK LINED CHUTE

NOT TO SCALE





FENCING AS PER AS: 4970

1. CHAIN WIRE MESH PANELS WITH SHADE CLOTH (IF REQUIRED) ATTACHED, HELD IN PLACE WITH CONCRETE FEET.
2. ALTERNATIVE PLYWOOD OR WOODEN PALING FENCE PANELS. THIS FENCING MATERIAL ALSO PREVENTS BUILDING MATERIALS OR SOIL ENTERING THE TPZ.
3. MULCH INSTALLATION ACROSS SURFACE OF TPZ (AT THE DISCRETION OF THE PROJECT ARBORIST.) NO EXCAVATION, CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT OR STORAGE OF MATERIALS OF ANY KIND IS PERMITTED WITHIN THE TPZ.
4. BRACING IS PERMITTED WITHIN THE TPZ. INSTALLATION OF SUPPORTS SHOULD AVOID DAMAGING ROOTS.
5. THE CONSTRUCTION CONTRACTOR IS NOT TO UNDERTAKE ANY PRUNING OF TREES. TREE MANAGEMENT IS TO BE UNDERTAKEN BY A SUITABLY QUALIFIED ARBORIST.
6. NO STOCKPILE/S ARE PERMITTED WITHIN THE ZONE OF ANY RETAINED VEGETATION WITHOUT SUPERVISION AND AUTHORIZATION OF THE SUPERVISING ARBORIST.
7. NO CLEARING OF PROTECTED SIZE VEGETATION IS TO OCCUR WITHOUT APPROVAL FROM LOGAN CITY COUNCIL.

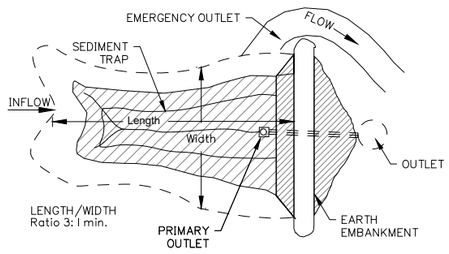
DETERMINING THE TPZ

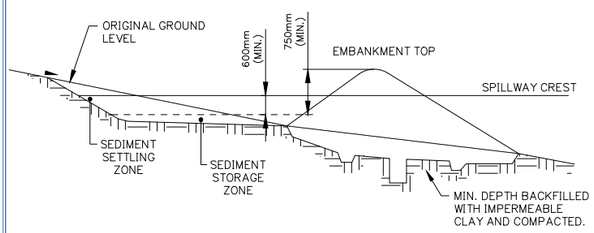
THE RADIUS OF THE TPZ IS CALCULATED FOR EACH TREE BY MULTIPLYING ITS DBH X 12 = TRUNK DIAMETER MEASURED AT 1.4M ABOVE GROUND. RADIUS IS MEASURED FROM THE CENTRE OF THE STEM AT GROUND LEVEL.

A TPZ SHOULD NOT BE LESS THAN 2M NOR GREATER THAN 15M (EXCEPT WHERE CROWN PROTECTION IS REQUIRED).
THE TPZ OF PALMS, OTHER MONOCOTS, CYCADS AND TREE FERNS SHOULD NOT BE LESS THAN 1M OUTSIDE THE CROWN PROJECTION.

PROTECTIVE FENCING

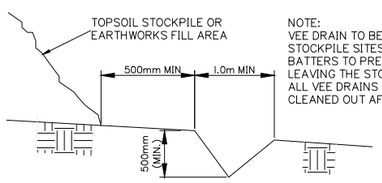
NOT TO SCALE





TYPICAL SEDIMENT BASIN

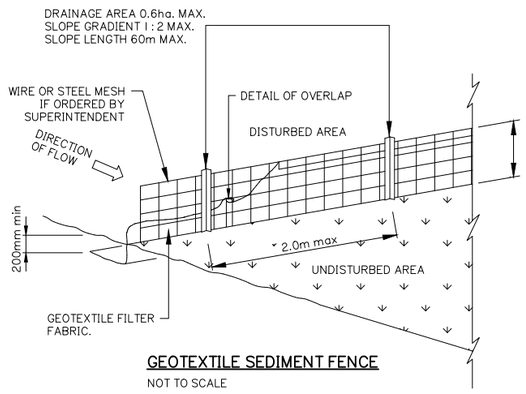
NOT TO SCALE



NOTE:
VEE DRAIN TO BE CUT AROUND ALL STOCKPILE SITES AND THE TOE OF ALL BATTERS TO PREVENT SEDIMENT FROM LEAVING THE STOCKPILE OR FILL AREAS. ALL VEE DRAINS TO BE INSPECTED AND CLEANED OUT AFTER RAINFALL EVENT.

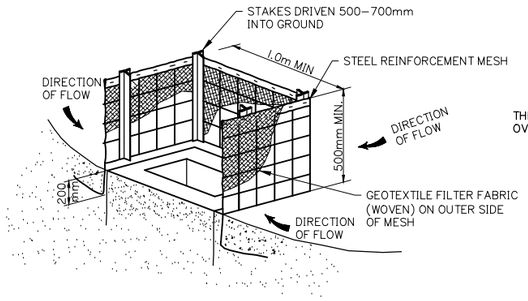
TYPICAL SECTION VEE DRAIN

NOT TO SCALE



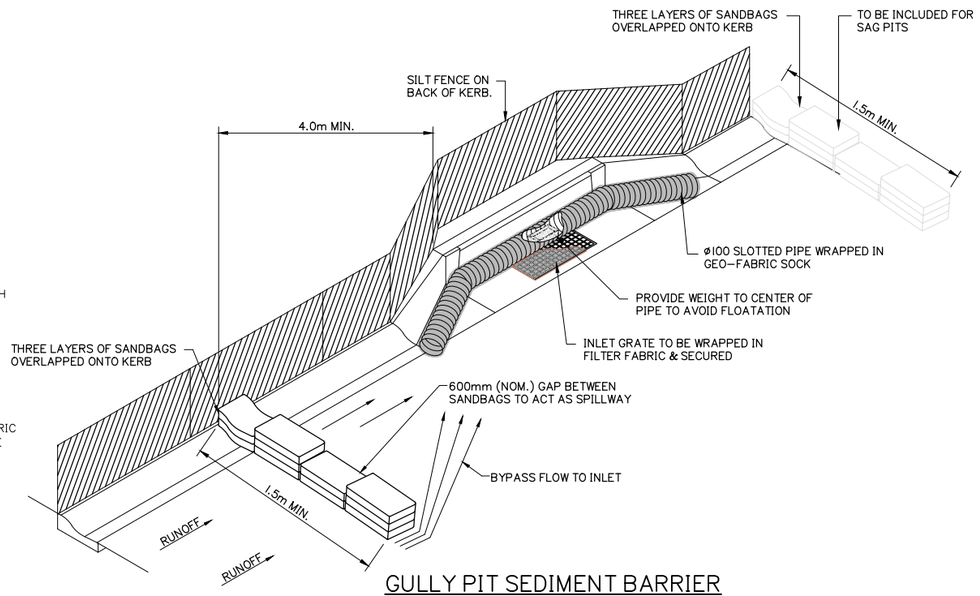
GEOTEXTILE SEDIMENT FENCE

NOT TO SCALE



STORMWATER INLET – SEDIMENT TRAP

NOTE:
FOURTH SIDE OF TRAP NOT SHOWN FOR CLARITY



GULLY PIT SEDIMENT BARRIER

SCALE N.T.S.

SEDIMENT AND EROSION TYPICAL DETAILS

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEDIMENT AND EROSION TYPICAL DETAILS

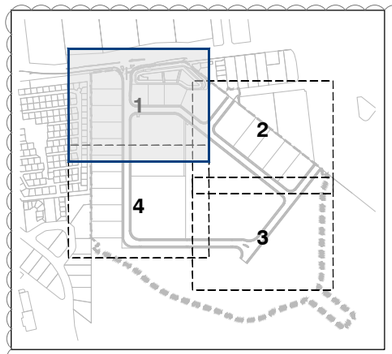
Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020
Drawing No:	5941 ENG OPW1 060
Rev. No:	B

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 060.dwg



KEY PLAN
SCALE 1: 7500

WARNING

BEWARE OF UNDERGROUND SERVICES

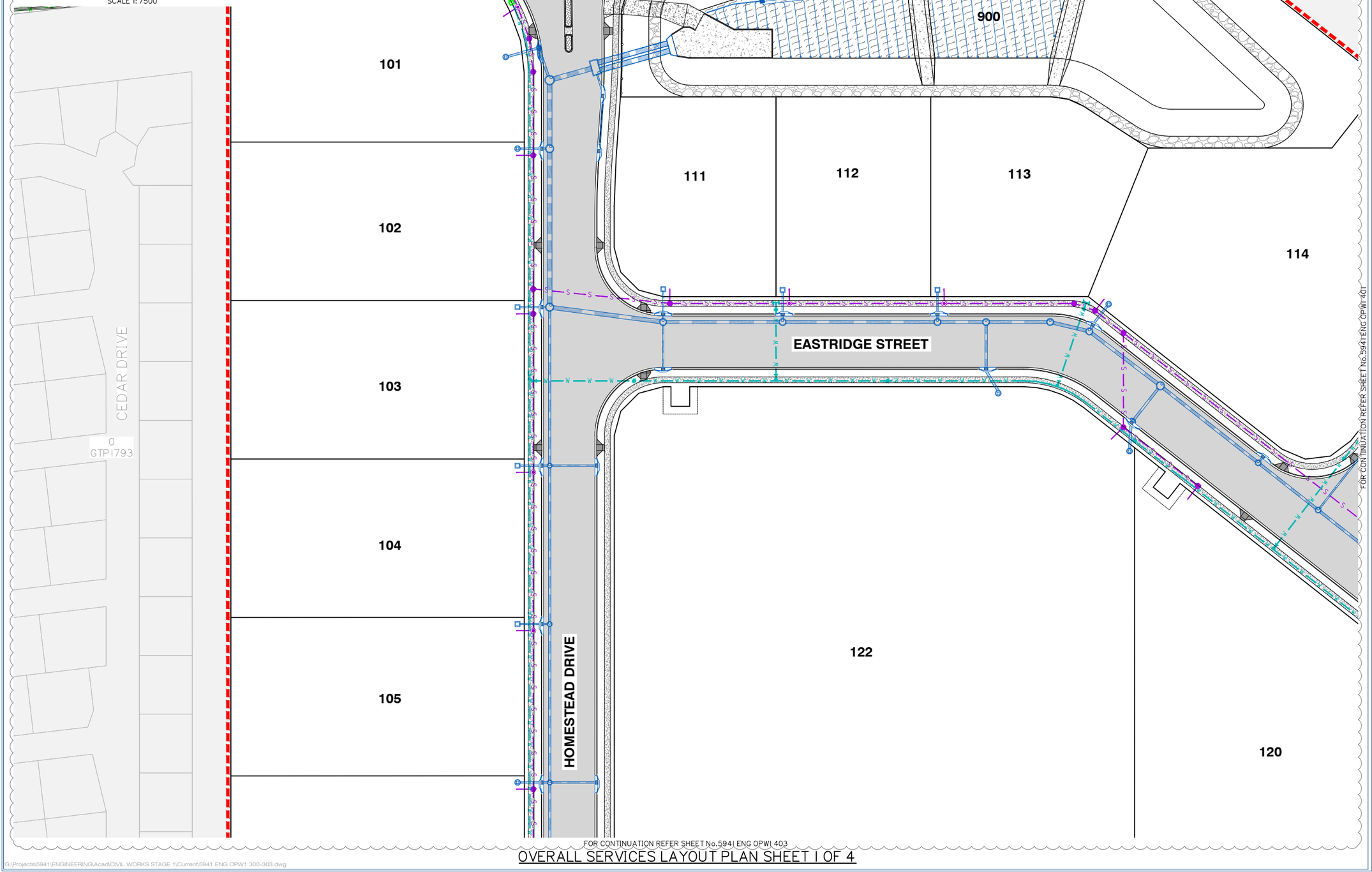
THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

NOTE:

STORMWATER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 400 TO 5941 ENG OPW1 403

SEWER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 600 TO 5941 ENG OPW1 603

WATER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 700 TO 5941 ENG OPW1 703



OVERALL SERVICES LAYOUT PLAN SHEET 1 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 300-303.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

OVERALL SERVICES LAYOUT PLAN SHEET 1 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 300
Rev. No: C

NOTE:

STORMWATER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 400 TO 5941 ENG OPW1 403

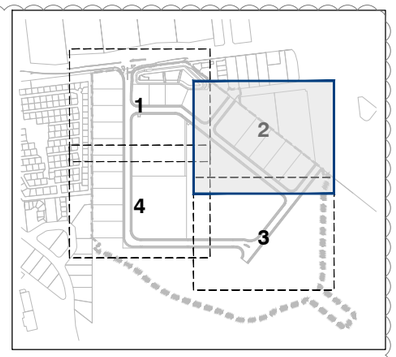
SEWER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 600 TO 5941 ENG OPW1 603

WATER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 700 TO 5941 ENG OPW1 703

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.



KEY PLAN
SCALE 1: 7500

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 300

EMERI STREET

20
SP103405

10
RP893410

YATALA
DRIVE–IN

2
RP115018

EMERI STREET EXT.

114

115

116

117

118

119

120

EASTRIDGE STREET

FAIRWAY STREET

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 302

OVERALL SERVICES LAYOUT PLAN SHEET 2 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 300-303.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

OVERALL SERVICES LAYOUT PLAN SHEET 2 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 10 20 30 40 50

1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 301

Rev. No: C

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 301

NOTE:

STORMWATER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 400 TO 5941 ENG OPW1 403

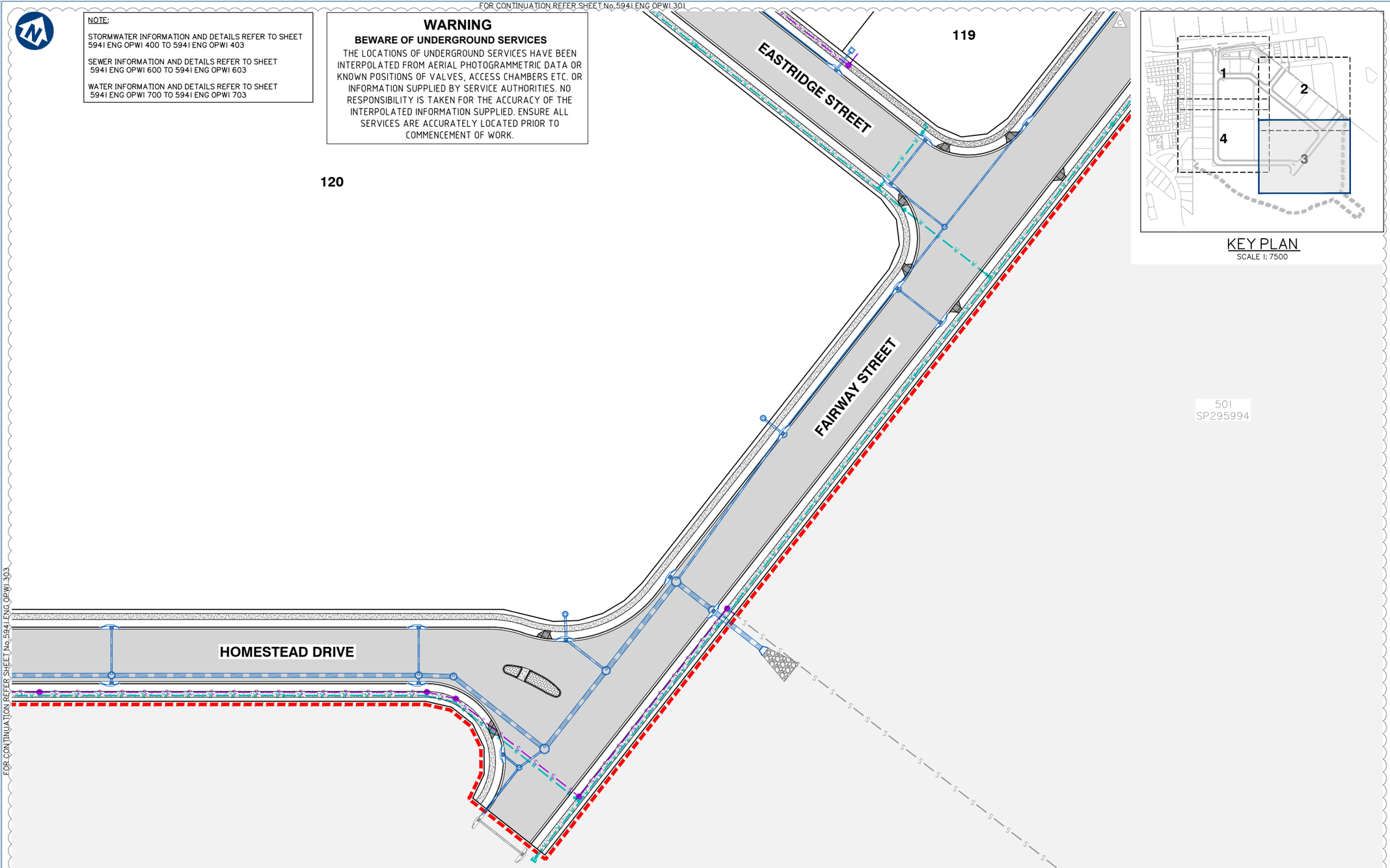
SEWER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 600 TO 5941 ENG OPW1 603

WATER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 700 TO 5941 ENG OPW1 703

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.



KEY PLAN
SCALE 1: 7500

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

OVERALL SERVICES LAYOUT PLAN SHEET 3 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	09-06-2020	INFORMATION REQEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 10 20 30 40 50

1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

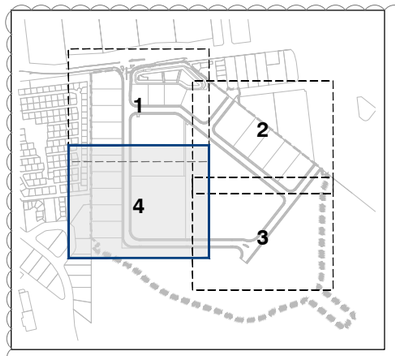
Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 302
Rev. No: C

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 303

OVERALL SERVICES LAYOUT PLAN SHEET 3 OF 4

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 300



KEY PLAN
SCALE 1: 7500

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

NOTE:

STORMWATER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 400 TO 5941 ENG OPW1 403

SEWER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 600 TO 5941 ENG OPW1 603

WATER INFORMATION AND DETAILS REFER TO SHEET 5941 ENG OPW1 700 TO 5941 ENG OPW1 703

C

105
106
107
108
109
110
122
121
120

CEDAR DRIVE

HOMESTEAD DRIVE

HOMESTEAD DRIVE

114
RP855793

116
RP901397

117
RP807576

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 302

OVERALL SERVICES LAYOUT PLAN SHEET 4 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 300-303.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

C

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

OVERALL SERVICES LAYOUT PLAN SHEET 4 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

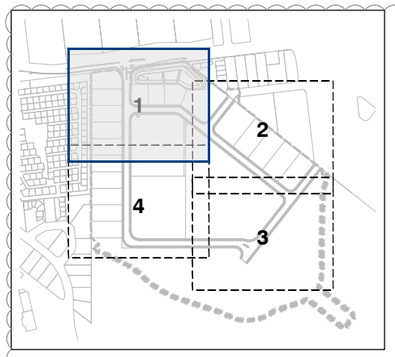
SCALE IN METRES

0 10 20 30 40 50

1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 303
Rev. No: C



KEY PLAN
SCALE 1: 7500

CAUTION
EXISTING SEWER TRUNK IN THIS AREA

CAUTION
EXISTING SERVICES IN THIS AREA

CONTRACTOR TO TIE–IN NEATLY INTO EXISTING PAVEMENT. REFER DWG No. 5941 ENG OPWI 410 FOR DETAILS

CONTRACTOR TO TIE–IN NEATLY INTO EXISTING KERB AND FOOTPATH

CONCRETE MAINTENANCE ACCESS DRIVEWAY TO SEDIMENT FOREBAY AT 1 in 4 MAX. GRADE. REFER IPWEA STD DWG RS–049 AND RS–050 FOR DETAILS

TRANSFORMER SUBSTATION. REFER TO ELECTRICAL PLANS FOR DETAILS

STAPYLTON JACOBS WELL ROAD

LOT 2 SP216787

LOT 0 SP216787

CONTRACTOR TO TIE–IN NEATLY INTO EXISTING KERB AND FOOTPATH

MEDIAN ISLAND INFILL. REFER DWG 5941 ENG OPWI 410 FOR DETAILS

900
SEDIMENT BASIN 1

101

102

FOR KERB RAMPS AND INTERSECTION DETAILS REFER TO DWG No. 5941 ENG OPWI 490 TO 5941 ENG OPWI 497

103

104

105

111

112

113

114

122
RL14.6

120
RL18.6

EASTRIDGE STREET

HOMESTEAD DRIVE

CEDAR DRIVE

LOT 0 GTP1793

ELECTRICAL PMT

1:2 FILL BATTER AFTER 1:4 TRANSITION BATTER THROUGH LANDSCAPE BUFFER ZONE

1.5m CONCRETE FOOTPATH. REFER TO I.P.W.E.A.Q STD DWG RS–065 FOR DETAILS

FOR CONTINUATION REFER SHEET No.5941 ENG OPWI 401

FOR CONTINUATION REFER SHEET No.5941 ENG OPWI 403

ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 1 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 400-403.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

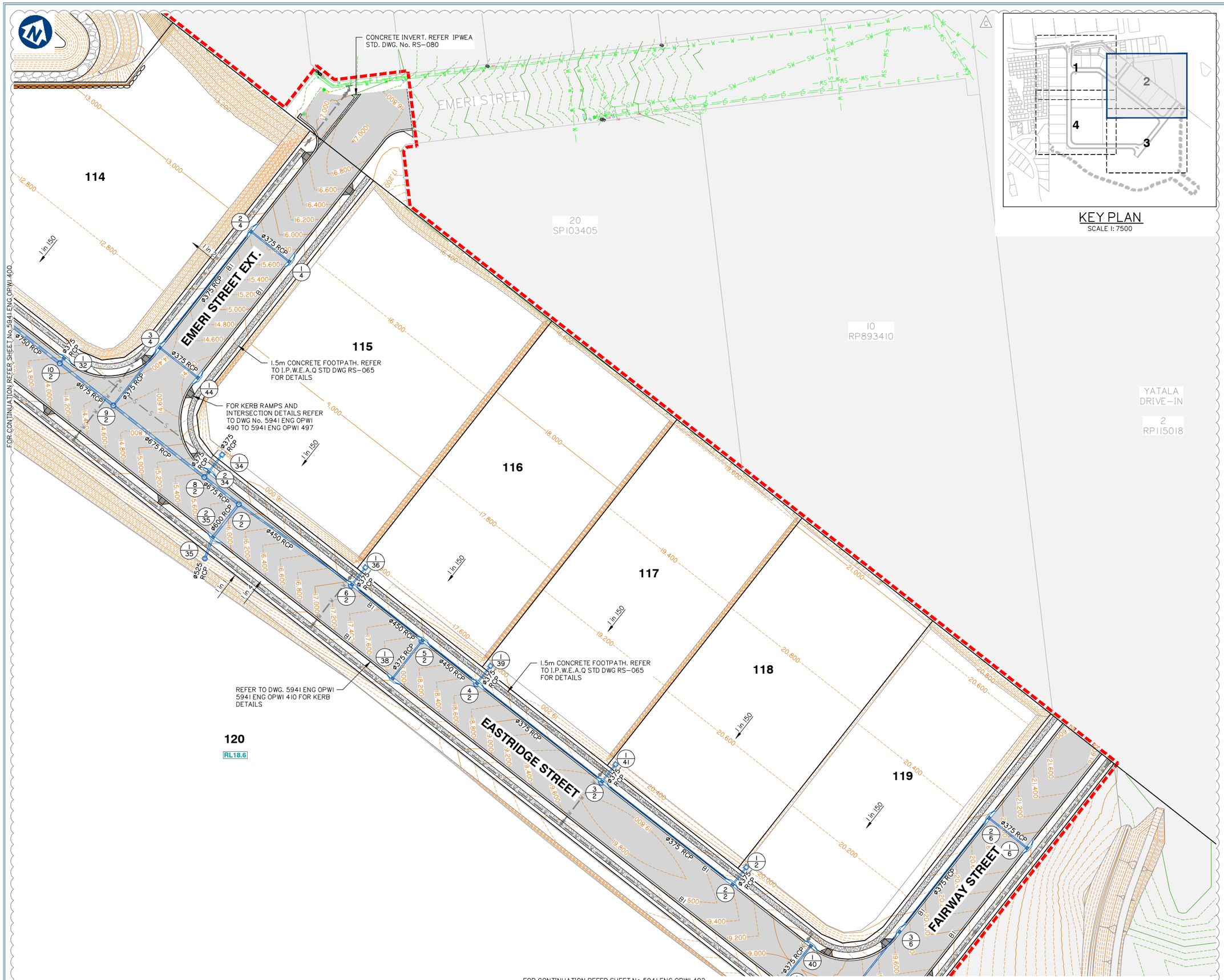
DRAWING TITLE
ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 1 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 400
Rev. No: C



KEY PLAN
SCALE 1: 7500

ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 2 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 400-403.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 2 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 401
Rev. No: C

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 401

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 403

EASTRIDGE STREET

FAIRWAY STREET

HOMESTEAD DRIVE

120
RL18.6

119

FUTURE STAGE

FUTURE STAGES

501
SP295994

FOR KERB RAMPS AND INTERSECTION DETAILS REFER TO DWG No. 5941 ENG OPW1 490 TO 5941 ENG OPW1 497

REFER TO DWG. 5941 ENG OPW1 5941 ENG OPW1 410 FOR KERB DETAILS

1.5m CONCRETE FOOTPATH. REFER TO I.P.W.E.A.Q STD DWG RS-065 FOR DETAILS

MEDIAN ISLAND INFILL. REFER DWG 5941 ENG OPW1 410 FOR DETAILS

PROPOSED ROCK SCOUR PROTECTION TO OUTLET HEADWALL. REFER DWG 5941 ENG OPW1 411 FOR DETAILS

1% GRADE ON OUTLET CHANNEL TO DISCHARGE SWALE – DIRECTED TO TEMPORARY SEDIMENT BASIN

2.0m TURFED LINED

CONTRACTOR TO TERMINATE LINE 54 3.0m PAST EXTENT OF STAGE 1 PAVEMENT. BOARD AND SAND BAG PIPE FOR CONNECTION IN FUTURE STAGES

KEY PLAN
SCALE 1: 7500

ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 3 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 400-403.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 3 OF 4

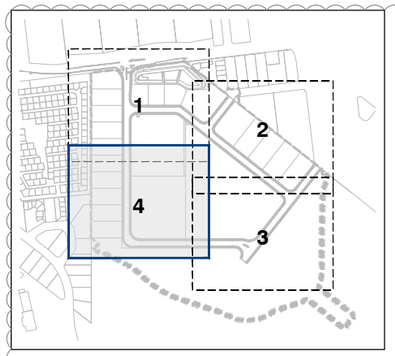
Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 402
Rev. No: C

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 400



KEY PLAN
SCALE 1: 7500

105
106
107
108
109
110
122
RL14.6
121
RL18.6
120
RL18.6
1 in 150
1 in 1
CEDAR DRIVE
114
RP855793
116
RP901397
17
RP807576
ø600 RCP
ø450 RCP
ø375 RCP
ø525 RCP
ø750 RCP
ø825 RCP
ø900 RCP
ø1050 RCP
ALLOTMENT BOUNDARY
ELECTRICAL PMT
FOR KERB RAMPS AND INTERSECTION DETAILS REFER TO DWG No. 5941 ENG OPW1 490 TO 5941 ENG OPW1 497
HOMESTEAD DRIVE
FUTURE STAGES

ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 4 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 400-403.dwg

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 402

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

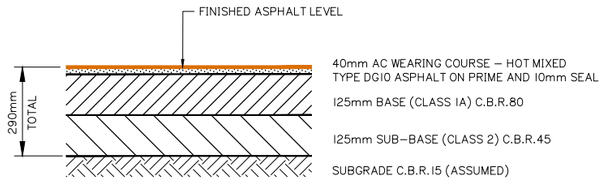
DRAWING TITLE
ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 4 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

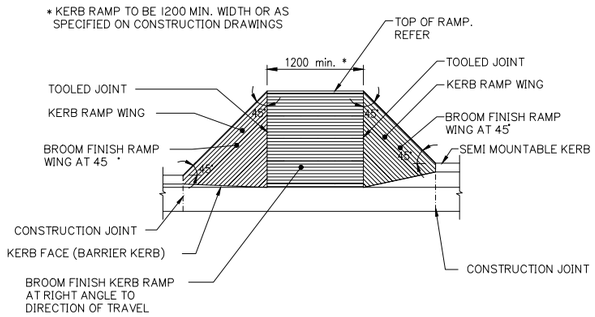
Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 403
Rev. No: C



NOMINAL ROAD PAVEMENT DETAIL INDUSTRIAL COLLECTOR & ACCESS STREET

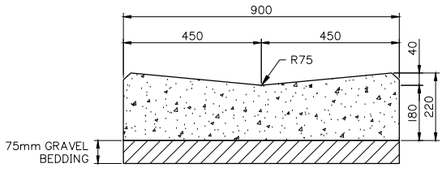
PAVEMENT DESIGN SUBJECT TO IN-SITU CBR TESTING AND FURTHER COUNCIL APPROVAL.
N.T.S



TYPICAL COMPLIANT KERB RAMP DETAIL

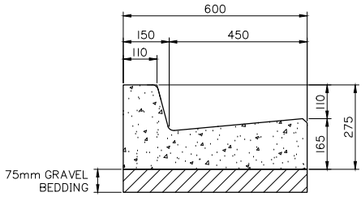
NOT TO SCALE

NOTE: REFER IPWEAQ STANDARD DWGS No. RS-090 & RS-091



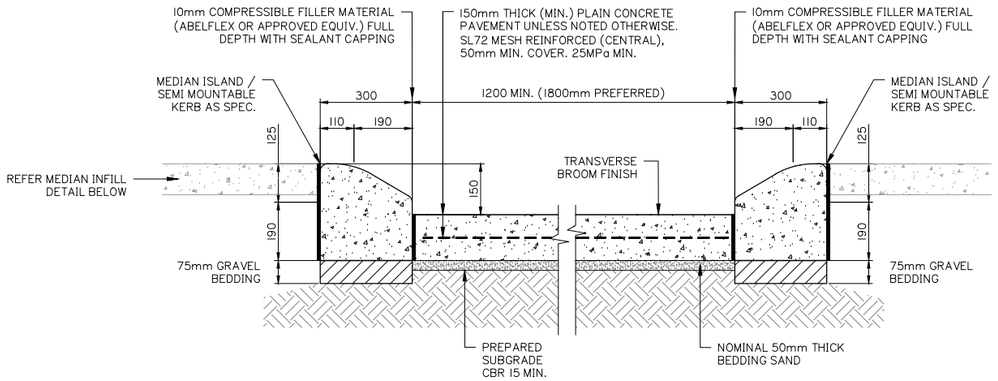
CHANNEL

REFER TO IPWEA STD. DWG. No. RS-080
NOT TO SCALE



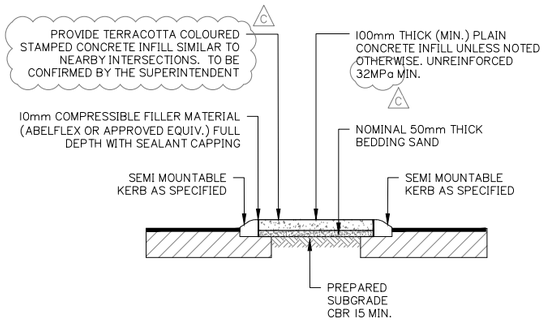
B1 KERB AND CHANNEL

REFER TO IPWEA STD. DWG. No. RS-080
NOT TO SCALE



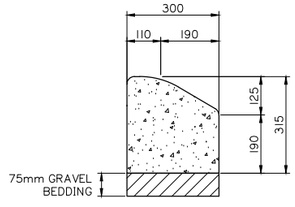
TYPICAL CUT-THROUGH TREATMENT FOR MEDIAN ISLAND

NOT TO SCALE



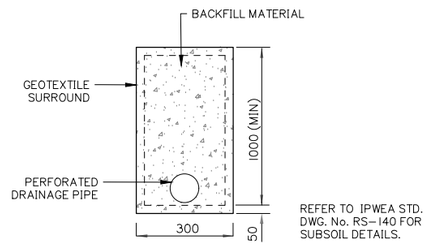
MEDIAN ISLAND INFILL

N.T.S
AS PER STANDARD DRAWING IPWEA STD DWG No. RS-065.



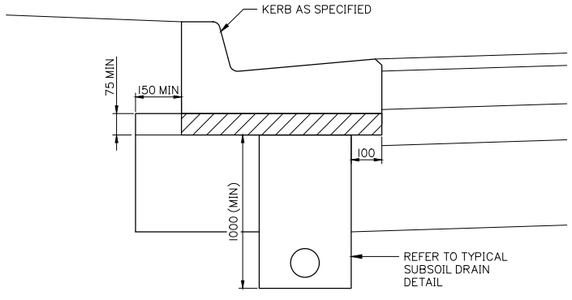
SM1 KERB (TYPE 13)

REFER TO DTMR STD. DWG. No. 1033
NOT TO SCALE



TYPICAL SUBSOIL DRAIN

NOTE: SUBSOIL ACCESS POINTS TO BE INSTALLED IN ACCORDANCE WITH IPWEA RS-142
NOT TO SCALE



TYPICAL SUBSOIL ARRANGEMENT DETAILS

IN ACCORDANCE TO IPWEA STD. DWG. No. RS-140
NOT TO SCALE

TYPICAL SECTIONS AND DETAILS SHEET 1 OF 3

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 75 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

TYPICAL SECTIONS AND DETAILS SHEET 1 OF 3

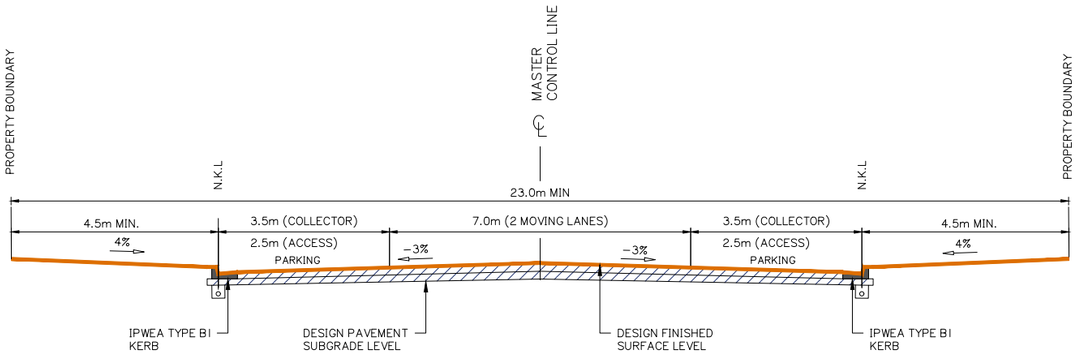
Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

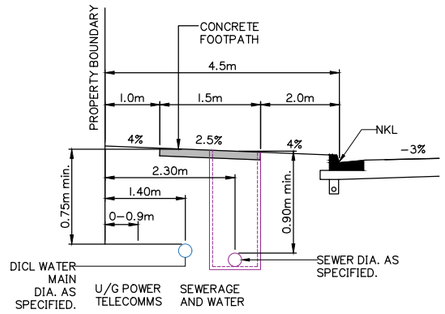
Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 410
Rev. No: C



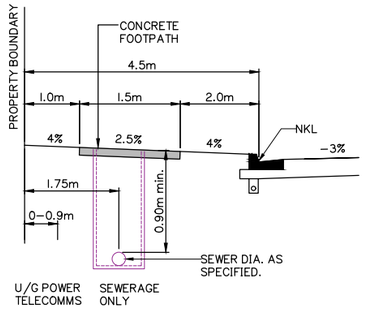
TYPICAL CROSS SECTION – INDUSTRIAL / COMMERCIAL COLLECTOR AND ACCESS STREETS (23.0m) HOMESTEAD DRIVE, EASTRIDGE STREET, FAIRWAY STREET & EMERI STREET EXT.

REFER ALSO CoGC STD DWG 05-02-2004 FOR DETAILS



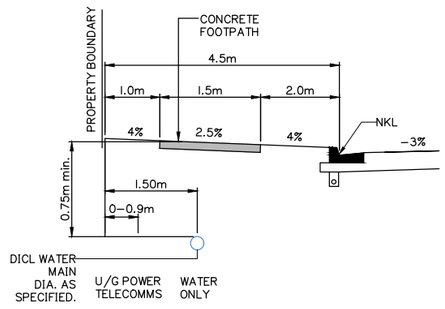
TYPICAL SERVICES IN SHARED VERGE POTABLE WATER AND SEWER RETICULATION

SCALE: N.T.S



TYPICAL SERVICES IN VERGE SEWER RETICULATION ONLY

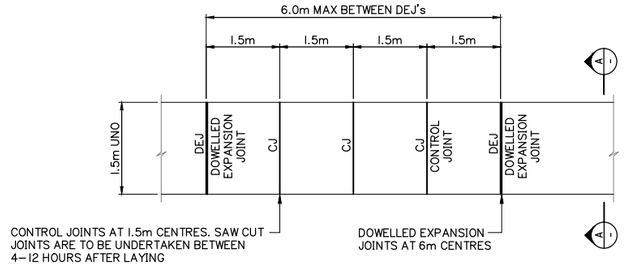
SCALE: N.T.S



TYPICAL SERVICES IN VERGE POTABLE WATER RETICULATION ONLY

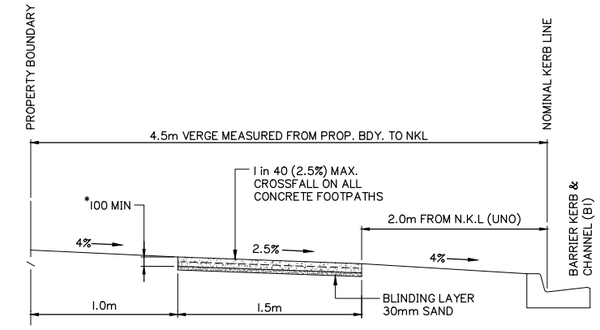
SCALE: N.T.S

NOTE:
1. PUBLIC UTILITIES ALLOCATIONS ARE MEASURED FROM THE REAL PROPERTY BOUNDARY.
2. LIGHT POLE, TREE ALLOCATIONS AND FOOTPATHS ARE MEASURED FROM THE NOMINAL KERB LINE.



TYPICAL CONCRETE JOINTING PLAN

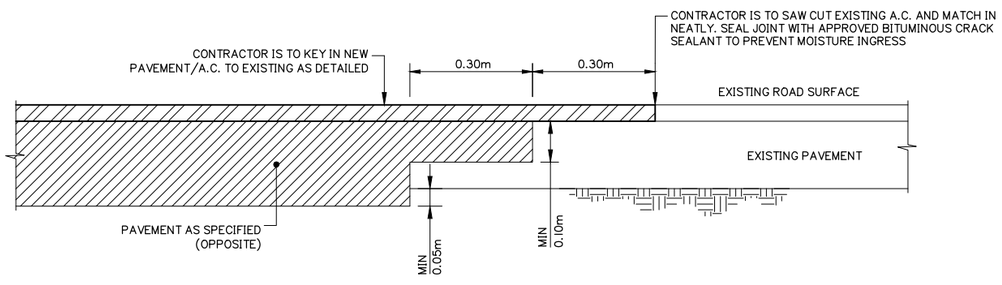
SCALE: N.T.S



*100mm MIN. REINFORCED CONCRETE 25MPa (Min.), SL72 MESH CENTRAL, 50mm BOTTOM COVER, TRANSVERSE BROOM FINISHED FOR SLIP RESISTANCE. REFER IPWEA RS-065 PATHWAYS CONCRETE PATHWAY CONSTRUCTION DETAILS. REFER IPWEA STD DWG RS-049 AND RS-050 FOR TREATMENT AT DRIVEWAYS

SECTION A A
SCALE: NTS

1.5m CONCRETE FOOTPATH DETAIL IN VERGE



CONNECTION TO EXISTING PAVEMENT

N.T.S

TYPICAL DETAIL
SHOWING LONGITUDINAL CONSTRUCTION DETAIL FOR CONNECTION TO EXISTING PAVEMENT / A.C.

TYPICAL SECTIONS AND DETAILS SHEET 2 OF 3

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

TYPICAL SECTIONS AND DETAILS SHEET 2 OF 3

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

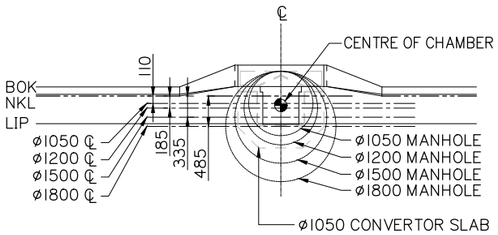
SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 411
Rev. No: C

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 410-411.dwg



TYPICAL DETAIL
DRAINWAY SIDE INLET GULLY

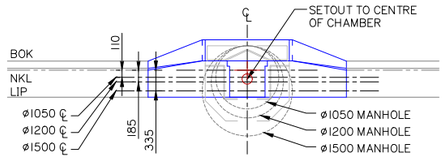
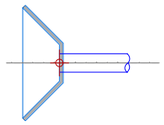
SCALE 1 : 50

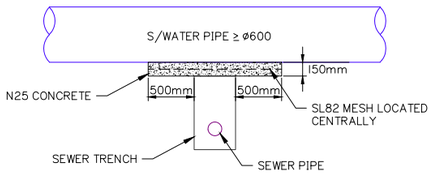
DENOTES GIVEN STRUCTURE SETOUT LOCATION

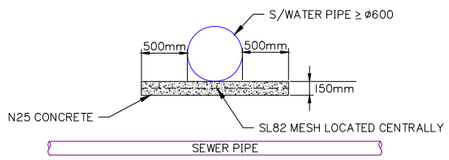
CIRCULAR PRECAST DRAINWAY CONVERTOR SLABS ARE AVAILABLE IN SIZES LISTED BELOW:

1200 ID (1650 OD) x 150mm THICK – 1000mm HOLE
1350 ID (1830 OD) x 150mm THICK – 1000mm HOLE
1500 ID (1970 OD) x 175mm THICK – 1000mm HOLE
1650 ID (2100 OD) x 225mm THICK – 1000mm HOLE
1800 ID (2300 OD) x 225mm THICK – 1000mm HOLE
2000 ID (2450 OD) x 250mm THICK – 1000mm HOLE

REFERENCE POINT LOCATION FOR DRAINAGE STRUCTURES

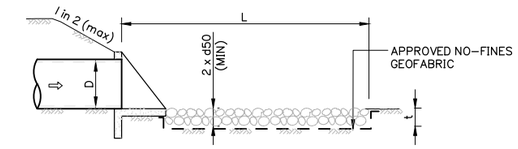
STRUCTURE TYPE	HORIZONTAL CONTROL (REFERENCE POINT LOCATION)	VERTICAL CONTROL (REFERENCE LEVEL)
MANHOLE	CENTRE OF MANHOLE	FINISHED SURFACE LEVEL
GULLY PIT		FINISHED SURFACE LEVEL (INVERT OF KERB)
HEADWALL	 INTERSECTION OF HEADWALL FACE & PIPE CENTRELINE	INVERT LEVEL
FIELD INLET PIT	CENTRE OF PIT	FINISHED SURFACE LEVEL





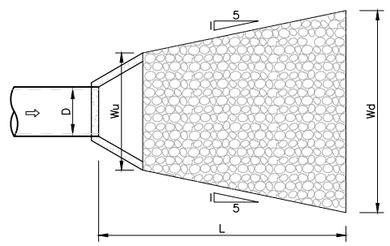
BRIDGING DETAILS FOR STORMWATER PIPES ≥ ø600

NOT TO SCALE



TYPICAL STORMWATER OUTLET SECTION

N.T.S



TYPICAL STORMWATER OUTLET PLAN

N.T.S

SCOUR PROTECTION DETAILS

OUTLET PROTECTION TABLE

CULVERT No.	PIPE ø	OUTLET VELOCITY	LENGTH OF PROTECTION	UPSTREAM WIDTH	DOWNSTREAM WIDTH	NOMINAL ROCK SIZE	THICKNESS OF PROTECTION	PROTECTION AREA	PROTECTION VOLUME
	D (mm)	V (m/s)	L (mm)	Wu (mm)	Wd (mm)	d_{50} (mm)	t (mm)	(m^2)	(m^3)
OUT/X2	1200	3.22	9600	2370	5808	600	600	39.25	23.55

ROCK GRADATION TABLE

SMALLEST DIMENSION IN (mm)						% OF ROCK SMALLER THAN SIZE SHOWN
150d_{50}	200d_{50}	300d_{50}	400d_{50}	500d_{50}	600d_{50}	
300	380	525	630	750	850	100
200	300	450	550	650	750	50–70
150	200	300	400	500	600	35–50
50	75	100	130	150	175	2–10

ROCK SIZE (M)	ROCK MASS (KG)	MIN. PERCENTAGE OF ROCKS LARGER THAN
0.40	100	0
0.30	35	50
0.15	25	90

NOTES:

- MINIMUM THICKNESS ROCK PROTECTION: 800mm MIN – UNDERLAY ROCK PROTECTION WITH 'TERRAFIX' XP310 GEOFABRIC OR EQUIVALENT.
- ROCKS SHALL BE DENSE, HARD & DURABLE.
- ANGULAR ROCK TO BE LAYED WITH LARGEST FACE VISIBLE.
- ROCK SIZE TO BE GRADED AS PER TABLE SHOWN.

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

TYPICAL SECTIONS AND DETAILS SHEET 3 OF 3

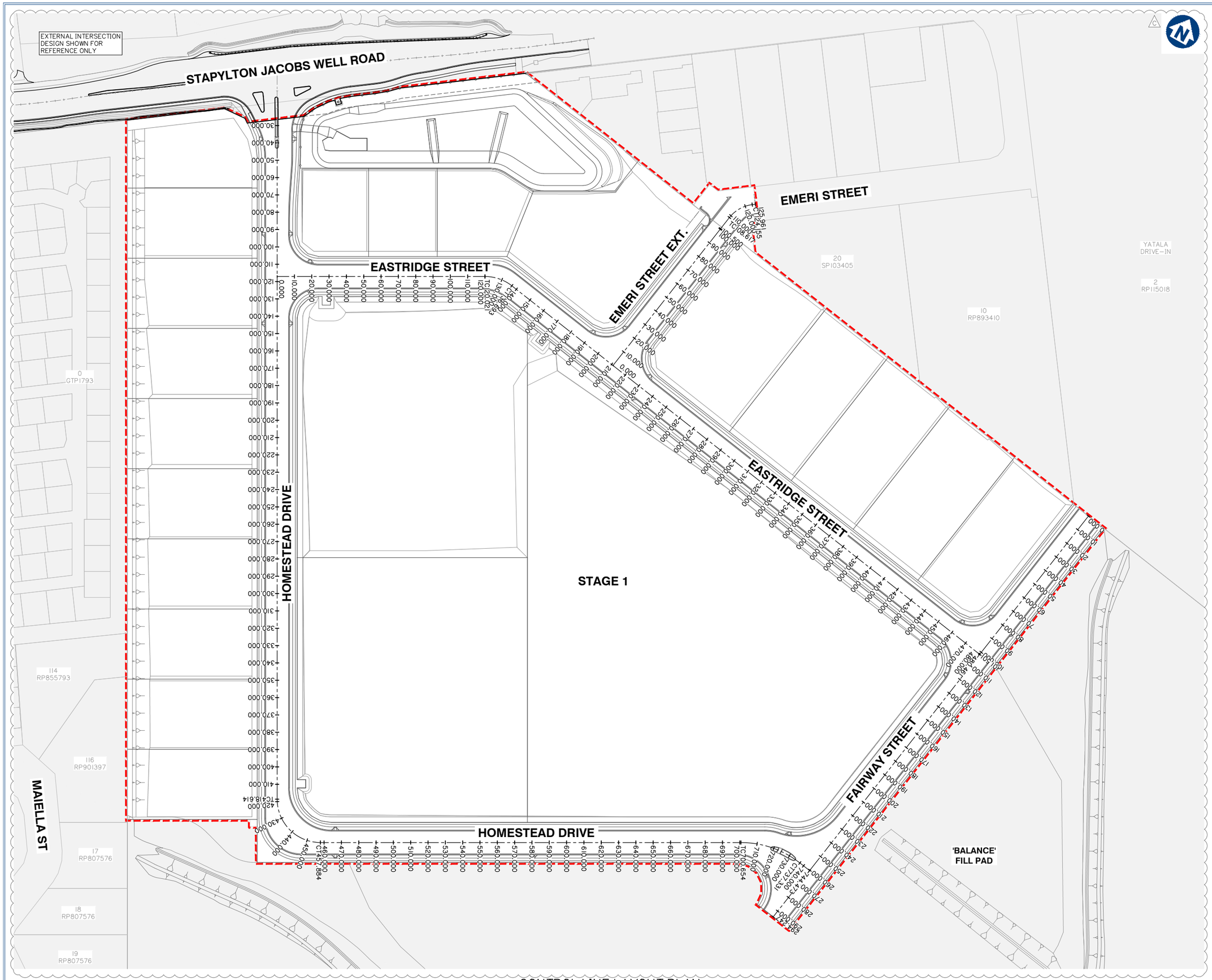
Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 412
Rev. No: B



CONTROL LINE LAYOUT PLAN

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

CONTROL LINE LAYOUT PLAN

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 20 40 60 80 100

1:1000 (FULL SIZE A1)
1:2000 (HALF SIZE A3)

Scale at A1:	1:1000
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 420
Rev. No: C

Xref ..\XREFs\ 5941 ENG OPW1 Revision C 200813.dwg

HOMESTEAD DRIVE – CONTROL LINE SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2186.394	7037.296	7.396	151°00'47.03"			
	10.000	2191.240	7028.549	7.091	151°00'47.03"			
	20.000	2196.086	7019.801	6.930	151°00'47.03"			
	30.000	2200.932	7011.054	7.359	151°00'47.03"			
	40.000	2205.778	7002.307	7.947	151°00'47.03"			
	50.000	2210.625	6993.559	8.482	151°00'47.03"			
	60.000	2215.471	6984.812	8.961	151°00'47.03"			
	70.000	2220.317	6976.065	9.395	151°00'47.03"			
	80.000	2225.163	6967.317	9.824	151°00'47.03"			
	90.000	2230.009	6958.570	10.217	151°00'47.03"			
	100.000	2234.855	6949.823	10.558	151°00'47.03"			
	110.000	2239.701	6941.076	10.860	151°00'47.03"			
	120.000	2244.547	6932.328	11.161	151°00'47.03"			
	130.000	2249.393	6923.581	11.527	151°00'47.03"			
	140.000	2254.239	6914.834	12.013	151°00'47.03"			
	150.000	2259.086	6906.086	12.600	151°00'47.03"			
	160.000	2263.932	6897.339	13.200	151°00'47.03"			
	170.000	2268.778	6888.592	13.800	151°00'47.03"			
	180.000	2273.624	6879.844	14.401	151°00'47.03"			
	190.000	2278.470	6871.097	15.001	151°00'47.03"			
	200.000	2283.316	6862.350	15.601	151°00'47.03"			
	210.000	2288.162	6853.603	16.201	151°00'47.03"			
	220.000	2293.008	6844.855	16.754	151°00'47.03"			
	230.000	2297.854	6836.108	17.222	151°00'47.03"			
	240.000	2302.700	6827.361	17.604	151°00'47.03"			
	250.000	2307.547	6818.613	17.913	151°00'47.03"			
	260.000	2312.393	6809.866	18.212	151°00'47.03"			
	270.000	2317.239	6801.119	18.460	151°00'47.03"			
	280.000	2322.085	6792.371	18.624	151°00'47.03"			
	290.000	2326.931	6783.624	18.723	151°00'47.03"			
	300.000	2331.777	6774.877	18.815	151°00'47.03"			
	310.000	2336.623	6766.129	18.907	151°00'47.03"			
	320.000	2341.469	6757.382	19.000	151°00'47.03"			
	330.000	2346.315	6748.635	19.092	151°00'47.03"			
	340.000	2351.161	6739.888	19.185	151°00'47.03"			
	350.000	2356.008	6731.140	19.277	151°00'47.03"			
	360.000	2360.854	6722.393	19.370	151°00'47.03"			
	370.000	2365.700	6713.646	19.462	151°00'47.03"			
	380.000	2370.546	6704.898	19.554	151°00'47.03"			
	390.000	2375.392	6696.151	19.636	151°00'47.03"			
	400.000	2380.238	6687.404	19.702	151°00'47.03"			
	410.000	2385.084	6678.656	19.753	151°00'47.03"			
TC	418.614	2389.259	6671.122	19.784	151°00'47.03"			
	420.000	2389.964	6669.928	19.788	147°50'11.49"			
	430.000	2396.817	6662.738	19.807	124°55'05.57"			
IP 2	438.249	2401.374	6649.253	19.811		R = –25.000	39.270	89°59'59.86"
	440.000	2405.929	6658.783	19.811	101°59'59.65"			
	450.000	2415.862	6658.689	19.799	79°04'53.73"			
CT	457.884	2423.242	6661.369	19.778	61°00'47.17"			
	460.000	2425.093	6662.394	19.771	61°00'47.17"			
	470.000	2433.840	6667.240	19.728	61°00'47.17"			
	480.000	2442.588	6672.086	19.669	61°00'47.17"			
	490.000	2451.335	6676.932	19.606	61°00'47.17"			
	500.000	2460.082	6681.778	19.542	61°00'47.17"			
	510.000	2468.830	6686.625	19.478	61°00'47.17"			
	520.000	2477.577	6691.471	19.414	61°00'47.17"			
	530.000	2486.324	6696.317	19.350	61°00'47.17"			
	540.000	2495.072	6701.163	19.287	61°00'47.17"			
	550.000	2503.819	6706.009	19.223	61°00'47.17"			
	560.000	2512.566	6710.855	19.159	61°00'47.17"			
	570.000	2521.314	6715.701	19.095	61°00'47.17"			
	580.000	2530.061	6720.547	19.031	61°00'47.17"			
	590.000	2538.808	6725.393	18.968	61°00'47.17"			
	600.000	2547.555	6730.239	18.904	61°00'47.17"			
	610.000	2556.303	6735.085	18.840	61°00'47.17"			
	620.000	2565.050	6739.932	18.776	61°00'47.17"			
	630.000	2573.797	6744.778	18.712	61°00'47.17"			
	640.000	2582.545	6749.624	18.648	61°00'47.17"			
	650.000	2591.292	6754.470	18.585	61°00'47.17"			
	660.000	2600.039	6759.316	18.521	61°00'47.17"			
	670.000	2608.787	6764.162	18.457	61°00'47.17"			
	680.000	2617.534	6769.008	18.393	61°00'47.17"			
	690.000	2626.281	6773.854	18.330	61°00'47.17"			
	700.000	2635.028	6778.700	18.267	61°00'47.17"			

HOMESTEAD DRIVE – CONTROL LINE SETOUT TABLE (CONT.)

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
TC	700.654	2635.601	6779.017	18.263	61°00'47.17"			
	710.000	2644.120	6782.832	18.205	70°44'55.86"			
IP 3	718.993	2652.264	6788.249	18.149		R = 55.000	36.676	38°12'26.65"
	720.000	2653.808	6785.255	18.143	81°09'58.55"			
	730.000	2663.774	6785.886	18.081	91°35'01.24"			
CT	737.331	2671.067	6785.197	18.035	99°13'13.83"			
	740.000	2673.702	6784.769	18.019	99°13'13.83"			
IP 4	744.473	2678.117	6784.052	17.991	99°13'13.83"			

EASTRIDGE STREET – CONTROL LINE SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2243.127	6934.892	11.072	61°00'44.11"			
	10.000	2251.874	6939.738	10.928	61°00'44.11"			
	20.000	2260.622	6944.584	10.805	61°00'44.11"			
	30.000	2269.369	6949.430	10.810	61°00'44.11"			
	40.000	2278.116	6954.276	10.879	61°00'44.11"			
	50.000	2286.863	6959.123	10.948	61°00'44.11"			
	60.000	2295.611	6963.969	11.018	61°00'44.11"			
	70.000	2304.358	6968.815	11.087	61°00'44.11"			
	80.000	2313.105	6973.661	11.191	61°00'44.11"			
	90.000	2321.852	6978.508	11.345	61°00'44.11"			
	100.000	2330.599	6983.354	11.550	61°00'44.11"			
	110.000	2339.347	6988.200	11.807	61°00'44.11"			
	120.000	2348.094	6993.046	12.102	61°00'44.11"			
TC	120.021	2348.113	6993.057	12.103	61°00'44.11"			
IP 2	128.357	2355.687	6997.253	12.351		R = 25.000	16.672	38°12'31.40"
	130.000	2357.564	6996.046	12.400	83°52'53.88"			
CT	136.693	2364.234	6995.865	12.599	99°13'15.51"			
	140.000	2367.498	6995.336	12.698	99°13'15.51"			
	150.000	2377.369	6993.733	12.996	99°13'15.51"			
	160.000	2387.240	6992.131	13.294	99°13'15.51"			
	170.000	2397.111	6990.528	13.592	99°13'15.51"			
	180.000	2406.982	6988.926	13.890	99°13'15.51"			
	190.000	2416.852	6987.323	14.189	99°13'15.51"			
	200.000	2426.723	6985.721	14.487	99°13'15.51"			
	210.000	2436.594	6984.119	14.787	99°13'15.51"			
	220.000	2446.465	6982.516	15.087	99°13'15.51"			
	230.000	2456.335	6980.914	15.391	99°13'15.51"			
	240.000	2466.206	6979.311	15.700	99°13'15.51"			
	250.000	2476.077	6977.709	16.014	99°13'15.51"			
	260.000	2485.948	6976.106	16.331	99°13'15.51"			
	270.000	2495.819	6974.504	16.647	99°13'15.51"			
	280.000	2505.689	6972.902	16.964	99°13'15.51"			
	290.000	2515.560	6971.299	17.280	99°13'15.51"			
	300.000	2525.431	6969.697	17.597	99°13'15.51"			
	310.000	2535.302	6968.094	17.913	99°13'15.51"			
	320.000	2545.172	6966.492	18.230	99°13'15.51"			
	330.000	2555.043	6964.889	18.547	99°13'15.51"			
	340.000	2564.914	6963.287	18.863	99°13'15.51"			
	350.000	2574.785	6961.685	19.180	99°13'15.51"			
	360.000	2584.656	6960.082	19.471	99°13'15.51"			
	370.000	2594.526	6958.480	19.692	99°13'15.51"			
	380.000	2604.397	6956.877	19.843	99°13'15.51"			
	390.000	2614.268	6955.275	19.924	99°13'15.51"			
	400.000	2624.139	6953.672	19.934	99°13'15.51"			
	410.000	2634.009	6952.070	19.873	99°13'15.51"			
	420.000	2643.880	6950.468	19.743	99°13'15.51"			
	430.000	2653.751	6948.865	19.542	99°13'15.51"			
	440.000	2663.622	6947.263	19.274	99°13'15.51"			
	450.000	2673.493	6945.660	19.035	99°13'15.51"			
	460.000	2683.363	6944.058	19.012	99°13'15.51"			
	470.000	2693.234	6942.455	19.084	99°13'15.51"			
	480.000	2703.105	6940.853	19.156	99°13'15.51"			
IP 3	480.461	2703.560	6940.779	19.160	99°13'15.51"			

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CONTROL LINE SETOUT TABLES SHEET 1 OF 2

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NOT APPLICABLE
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020
Drawing No:	5941 ENG OPW1 421
Rev. No:	C

FAIRWAY STREET – CONTROL LINE SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING
IP 1	-13.000	2721.908	7053.800	21.268	189°13'15.46"
	-10.000	2721.427	7050.839	21.427	189°13'15.46"
	0.000	2719.825	7040.968	21.739	189°13'15.46"
	10.000	2718.222	7031.097	21.712	189°13'15.46"
	20.000	2716.620	7021.226	21.442	189°13'15.46"
	30.000	2715.017	7011.356	21.162	189°13'15.46"
	40.000	2713.415	7001.485	20.881	189°13'15.46"
	50.000	2711.813	6991.614	20.601	189°13'15.46"
	60.000	2710.210	6981.743	20.320	189°13'15.46"
	70.000	2708.608	6971.873	20.040	189°13'15.46"
	80.000	2707.005	6962.002	19.759	189°13'15.46"
	90.000	2705.403	6952.131	19.479	189°13'15.46"
	100.000	2703.800	6942.260	19.198	189°13'15.46"
IP 2	101.500	2703.560	6940.779	19.156	
	110.000	2702.198	6932.389	18.918	189°13'15.11"
	120.000	2700.596	6922.519	18.681	189°13'15.11"
	130.000	2698.993	6912.648	18.517	189°13'15.11"
	140.000	2697.391	6902.777	18.413	189°13'15.11"
	150.000	2695.788	6892.906	18.315	189°13'15.11"
	160.000	2694.186	6883.036	18.217	189°13'15.11"
	170.000	2692.584	6873.165	18.119	189°13'15.11"
	180.000	2690.981	6863.294	18.021	189°13'15.11"
	190.000	2689.379	6853.423	17.923	189°13'15.11"
	200.000	2687.776	6843.552	17.832	189°13'15.11"
	210.000	2686.174	6833.682	17.774	189°13'15.11"
	220.000	2684.572	6823.811	17.754	189°13'15.11"
	230.000	2682.969	6813.940	17.770	189°13'15.11"
	240.000	2681.367	6804.069	17.822	189°13'15.11"
	250.000	2679.764	6794.199	17.904	189°13'15.11"
	260.000	2678.162	6784.328	17.989	189°13'15.11"
	270.000	2676.560	6774.457	18.074	189°13'15.11"
	280.000	2674.957	6764.586	18.158	189°13'15.11"
	290.000	2673.355	6754.715	18.243	189°13'15.11"
	300.000	2671.752	6744.845	18.328	189°13'15.11"

EMERI STREET EXTENSION – CONTROL LINE SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2437.631	6983.950		9°13'15.46"			
	10.000	2439.234	6993.821	14.689	9°13'15.46"			
	20.000	2440.836	7003.692	14.560	9°13'15.46"			
	30.000	2442.438	7013.562	14.524	9°13'15.46"			
	40.000	2444.041	7023.433	14.799	9°13'15.46"			
	50.000	2445.643	7033.304	15.166	9°13'15.46"			
	60.000	2447.246	7043.175	15.534	9°13'15.46"			
	70.000	2448.848	7053.046	15.902	9°13'15.46"			
	80.000	2450.451	7062.916	16.270	9°13'15.46"			
	90.000	2452.053	7072.787	16.637	9°13'15.46"			
	100.000	2453.655	7082.658	16.922	9°13'15.46"			
IP 2	100.500	2453.735	7083.151	16.931				
TC	108.617	2455.036	7091.164	17.010	9°13'18.14"			
	110.000	2455.305	7092.520	17.010	13°10'58.86"			
IP 3	116.386	2456.348	7099.243	16.964		R = 20.000	15.538	44°30'49.22"
	120.000	2459.875	7101.297	16.902	41°49'51.26"			
CT	124.155	2462.948	7104.085	16.800	53°44'07.36"			
IP 4	125.961	2464.403	7105.153	16.745	53°44'07.36"			

ROAD CONTROL LINE SETOUT TABLES SHEET 2 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 420-422.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CONTROL LINE SETOUT TABLES SHEET 2 OF 2

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

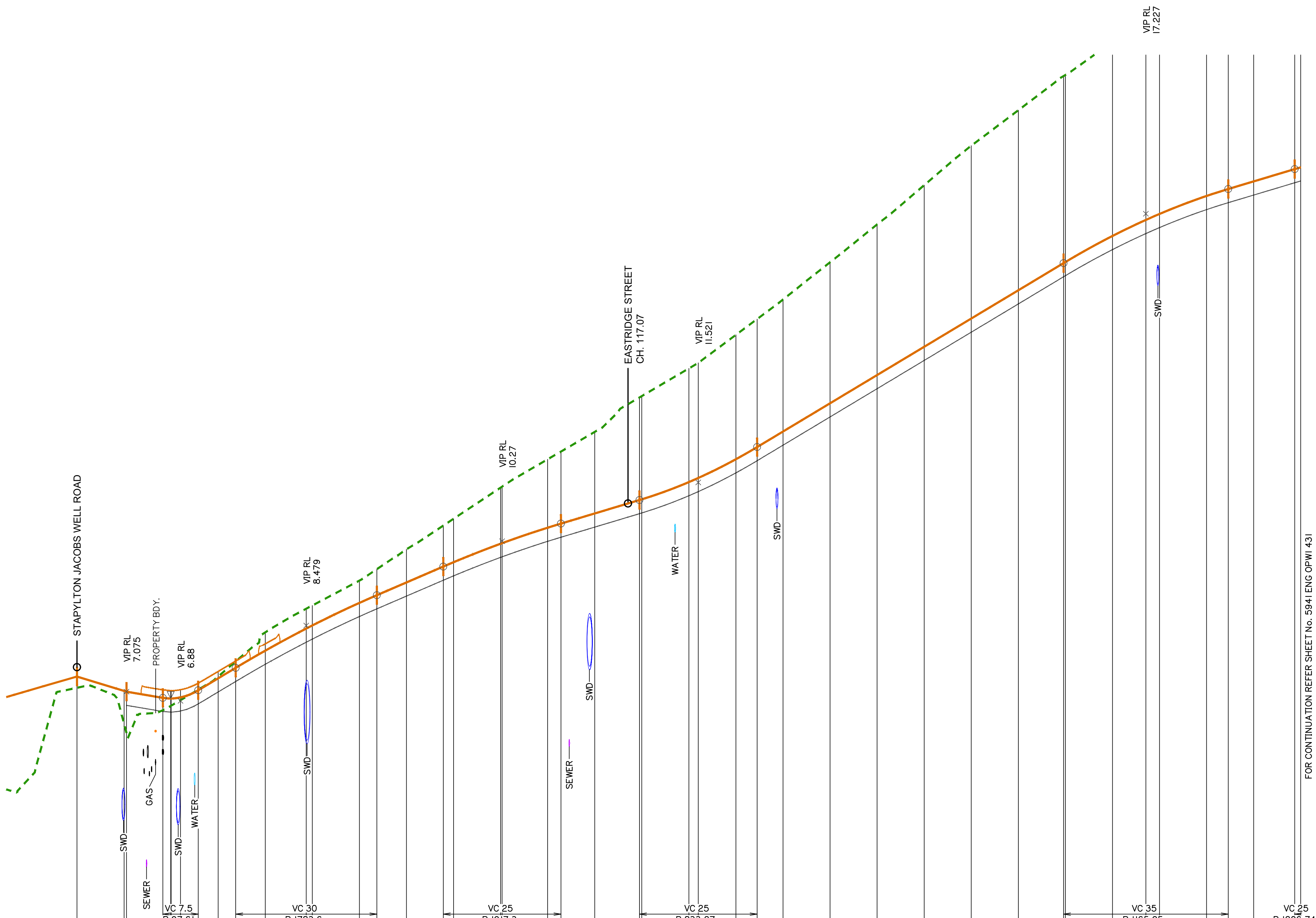
SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NOT APPLICABLE
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 422

Rev. No: C



HORIZONTAL CURVE DATA

VERTICAL CURVE LENGTH (m) / VERTICAL CURVE RADIUS (m): VC 7.5 R 97.61; VC 30 R 1783.6; VC 25 R 1917.3; VC 25 R 833.27; VC 35 R 1165.05; VC 25 R 1206.74

VERTICAL GEOMETRY GRADE (%) / VERTICAL GEOMETRY LENGTH (m): −3.1% 10.51; −1.7% 11.49; 6% 26.71; 4.3% 41.61; 3% 41.68; 6% 95.1; 3% 44.12

DATUM RL = 1.000

FINISHED SURFACE LEVEL	7.396	7.091	7.075	6.944	6.93	6.93	6.952	7.104	7.359	7.581	7.947
EXISTING SURFACE LEVEL	7.158	6.393	6.199	6.681	6.771	6.777	6.895	7.117	7.399	7.717	8.336
CUT / FILL DEPTH	0.238	0.698	0.876	0.263	0.158	0.153	0.057	−0.013	−0.04	−0.136	−0.389
CONTROL LINE CHAINAGE	0	10	10.51	18.248	19.905	20	21.998	25.748	30	33.71	40

FINISHED SURFACE LEVEL	8.416	8.482	8.961	9.125	9.395	9.732	9.824	10.217	10.229	10.558	10.645
EXISTING SURFACE LEVEL	8.838	8.906	9.434	9.677	10.1	10.602	10.747	11.409	11.43	12.011	12.175
CUT / FILL DEPTH	−0.422	−0.424	−0.473	−0.553	−0.705	−0.87	−0.922	−1.192	−1.201	−1.453	−1.53
CONTROL LINE CHAINAGE	48.71	50	60	63.71	70	77.822	80	90	90.322	100	102.822

FINISHED SURFACE LEVEL	10.86	11.145	11.161	11.527	11.614	12.013	12.271	12.6	13.2	13.8	14.401
EXISTING SURFACE LEVEL	12.592	13.324	13.354	13.941	14.059	14.654	14.99	15.403	16.195	17	17.833
CUT / FILL DEPTH	−1.732	−2.179	−2.193	−2.414	−2.445	−2.642	−2.719	−2.803	−2.995	−3.2	−3.433
CONTROL LINE CHAINAGE	110	119.503	120	130	132.003	140	144.503	150	160	170	180

FINISHED SURFACE LEVEL	15.001	15.601	16.177	16.201	16.754	17.096	17.222	17.604	17.751	17.913	18.174	18.212
EXISTING SURFACE LEVEL	18.672	19.426	20.151	20.174	20.851	21.303	21.418	21.81	22.009	22.222	22.372	22.388
CUT / FILL DEPTH	−3.672	−3.825	−3.974	−3.974	−4.097	−4.207	−4.196	−4.205	−4.258	−4.309	−4.197	−4.176
CONTROL LINE CHAINAGE	190	200	209.605	210	220	227.105	230	240	244.605	250	258.727	260

LONGITUDINAL SECTION - HOMESTEAD DRIVE - SHEET 1 OF 3

ROAD LONGITUDINAL SECTION — HOMESTEAD DRIVE SHEET 1 OF 3

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 430-437.dwg

gassman development perspectives est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:
Lot: 501
Plan: SP295994
Local Authority: CITY OF GOLD COAST COUNCIL
Level Datum: AHD
Meridian: -
Contour Interval: -
PSM: -
RL: -

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

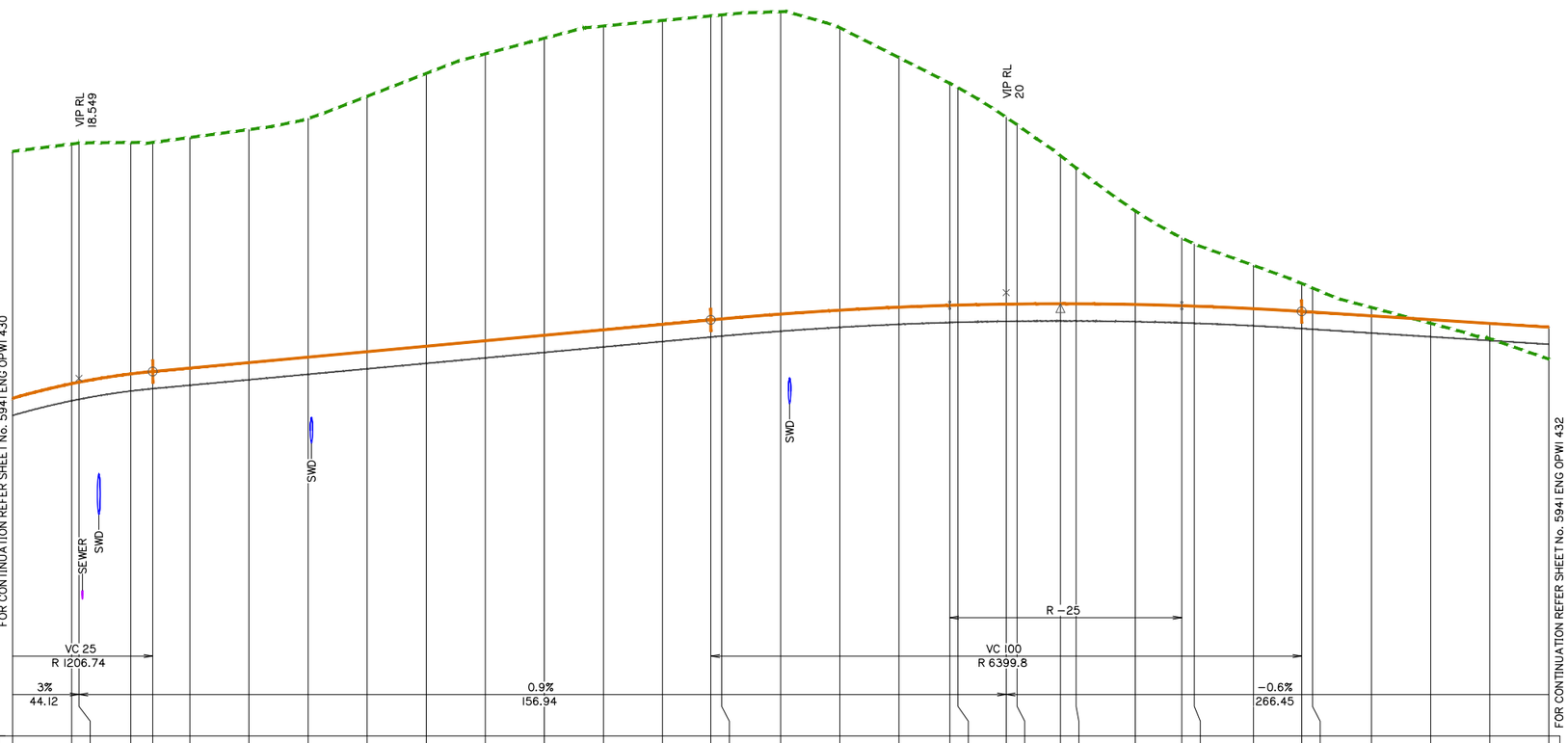
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
ROAD LONGITUDINAL SECTION - HOMESTEAD DRIVE SHEET 1 OF 3

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
HOZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40
VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1: AS SHOWN
Designed: IG
Drafted: BA
Approved: MG
RPEQ: 16939
Signed:
Date: 02-09-2020
Drawing No: 5941 ENG OPW1 430
Rev. No: C



HORIZONTAL CURVE DATA

VERTICAL CURVE LENGTH (m) / VERTICAL CURVE RADIUS (m)	VC 25 R 1206.74		VC 100 R 6399.8
VERTICAL GEOMETRY GRADE (%) / VERTICAL GEOMETRY LENGTH (m)	3% 44.12	0.9% 156.94	–0.6% 266.45

DATUM RL = 12.500

CONTROL LINE CHAINAGE	FINISHED SURFACE LEVEL	EXISTING SURFACE LEVEL	CUT / FILL DEPTH
260	18.212	22.388	–4.176
270	18.46	22.513	–4.054
271.227	18.484	22.529	–4.045
280	18.624	22.538	–3.913
283.727	18.665	22.54	–3.875
290	18.723	22.624	–3.901
300	18.815	22.758	–3.943
310	18.907	22.946	–4.038
320	19	23.32	–4.32
330	19.092	23.707	–4.614
340	19.185	24.038	–4.853
350	19.277	24.303	–5.026
360	19.37	24.509	–5.139
370	19.462	24.603	–5.141
378.171	19.538	24.68	–5.142
380	19.554	24.697	–5.143
390	19.636	24.752	–5.116
400	19.702	24.481	–4.778
410	19.753	23.975	–4.222
418.614	19.784	23.54	–3.756
420	19.788	23.468	–3.68
428.171	19.805	22.966	–3.161
430	19.807	22.839	–3.032
437.339	19.811	22.316	–2.505
440	19.811	22.108	–2.297
450	19.799	21.381	–1.583
457.884	19.778	20.925	–1.147
460	19.771	20.821	–1.05
470	19.728	20.46	–0.732
478.171	19.681	20.153	–0.472
480	19.669	20.077	–0.408
490	19.606	19.747	–0.142
500	19.542	19.48	0.062
510	19.478	19.221	0.257
520	19.414	18.875	0.539

LONGITUDINAL SECTION - HOMESTEAD DRIVE - SHEET 2 OF 3

ROAD LONGITUDINAL SECTION – HOMESTEAD DRIVE SHEET 2 OF 3

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 430-437.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD LONGITUDINAL SECTION - HOMESTEAD DRIVE SHEET 2 OF 3

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

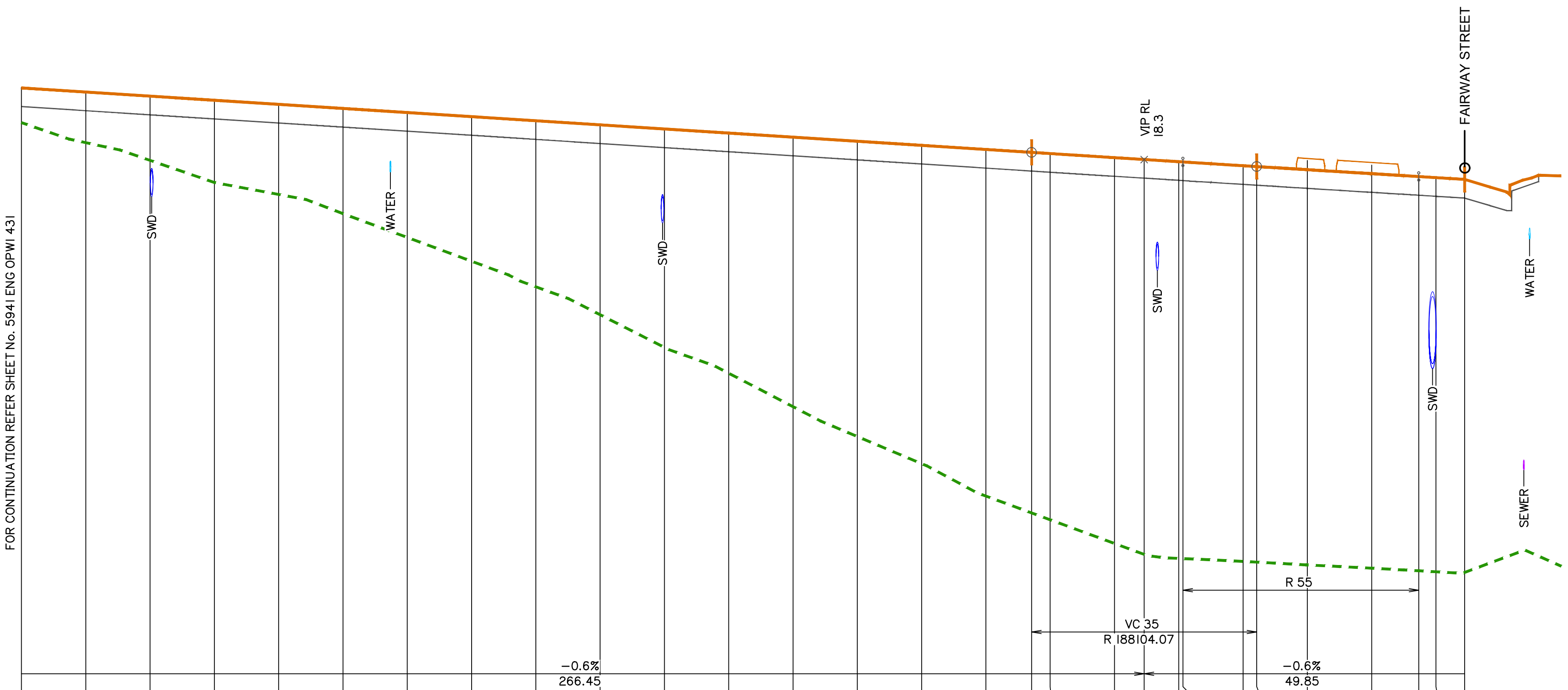
SCALE IN METRES

HOZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 431
Rev. No: C



HORIZONTAL CURVE DATA

VERTICAL CURVE LENGTH (m)
VERTICAL CURVE RADIUS (m)

VERTICAL GEOMETRY GRADE (%)
VERTICAL GEOMETRY LENGTH (m)

DATUM RL = 9.600

CONTROL LINE CHAINAGE	FINISHED SURFACE LEVEL	EXISTING SURFACE LEVEL	CUT / FILL DEPTH
520	19.414	18.875	0.539
530	19.35	18.563	0.787
540	19.287	18.287	0.999
550	19.223	17.943	1.279
560	19.159	17.757	1.402
570	19.095	17.459	1.636
580	19.031	17.088	1.943
590	18.968	16.718	2.249
600	18.904	16.321	2.583
610	18.84	15.886	2.954
620	18.776	15.378	3.398
630	18.712	14.976	3.736
640	18.648	14.456	4.193
650	18.585	13.992	4.593
660	18.521	13.569	4.951
670	18.457	13.065	5.392
677.122	18.412	12.802	5.609
680	18.393	12.696	5.697
690	18.33	12.328	6.002
694.622	18.301	12.157	6.144
700	18.267	12.095	6.172
700.654	18.263	12.093	6.17
710	18.205	12.049	6.156
712.122	18.192	12.038	6.154
720	18.143	11.993	6.15
730	18.081	11.943	6.138
737.331	18.035	11.902	6.133
740	18.019	11.887	6.132
744.473	17.991	11.877	6.114

LONGITUDINAL SECTION - HOMESTEAD DRIVE - SHEET 3 OF 3

ROAD LONGITUDINAL SECTION – HOMESTEAD DRIVE SHEET 3 OF 3

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 430-437.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD LONGITUDINAL SECTION - HOMESTEAD DRIVE SHEET 2 OF 3

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

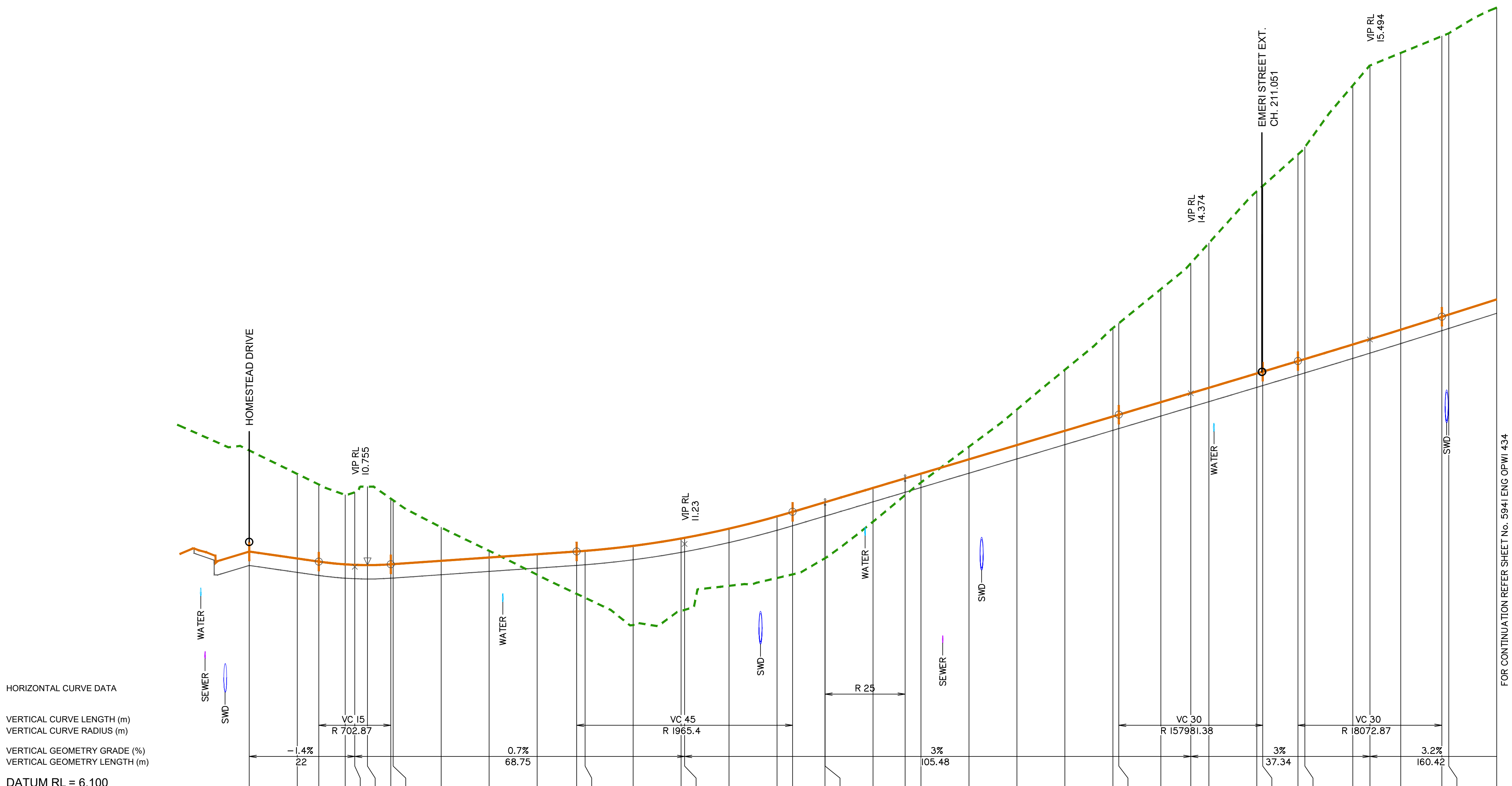
SCALE IN METRES

HOZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 432 Rev. No: C



FINISHED SURFACE LEVEL	11.072	10.928	10.863	10.805	10.795	10.79	10.807	10.81	10.879	10.948	11.018	11.075	11.087	11.191
EXISTING SURFACE LEVEL	13.182	12.692	12.471	12.255	12.308	12.427	12.177	12.142	11.577	11.088	10.589	10.191	10.108	9.539
CUT / FILL DEPTH	−2.109	−1.763	−1.608	−1.449	−1.513	−1.637	−1.37	−1.332	−0.698	−0.139	0.428	0.883	0.979	1.652
CONTROL LINE CHAINAGE	0	10	14.5	20	22	24.644	29.5	30	40	50	60	68.247	70	80

FINISHED SURFACE LEVEL	11.345	11.359	11.55	11.807	11.901	12.102	12.103	12.4	12.599	12.698	12.996	13.294	13.592	13.89
EXISTING SURFACE LEVEL	9.834	9.856	10.358	10.521	10.596	10.934	10.935	11.694	12.249	12.514	13.259	14.034	14.864	15.733
CUT / FILL DEPTH	1.511	1.503	1.192	1.285	1.304	1.168	1.168	0.706	0.35	0.184	−0.263	−0.74	−1.272	−1.843
CONTROL LINE CHAINAGE	90	90.747	100	110	113.247	120	120.021	130	136.693	140	150	160	170	180

FINISHED SURFACE LEVEL	13.927	14.189	14.375	14.487	14.787	14.824	15.044	15.087	15.391	15.5	15.7	15.969	16.014	16.331
EXISTING SURFACE LEVEL	15.833	16.546	17.085	17.504	18.585	18.696	19.354	19.506	20.792	21.207	21.47	21.82	21.879	22.414
CUT / FILL DEPTH	−1.906	−2.357	−2.71	−3.016	−3.798	−3.872	−4.31	−4.419	−5.401	−5.707	−5.77	−5.851	−5.864	−6.083
CONTROL LINE CHAINAGE	181.231	190	196.231	200	210	211.231	218.57	220	230	233.57	240	248.57	250	260

LONGITUDINAL SECTION - EASTRIDGE STREET - SHEET 1 OF 2

ROAD LONGITUDINAL SECTION – EASTRIDGE STREET SHEET 1 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 430-437.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
(AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA
STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL
ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
ROAD LONGITUDINAL SECTION - EASTRIDGE STREET SHEET 1 OF 2

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

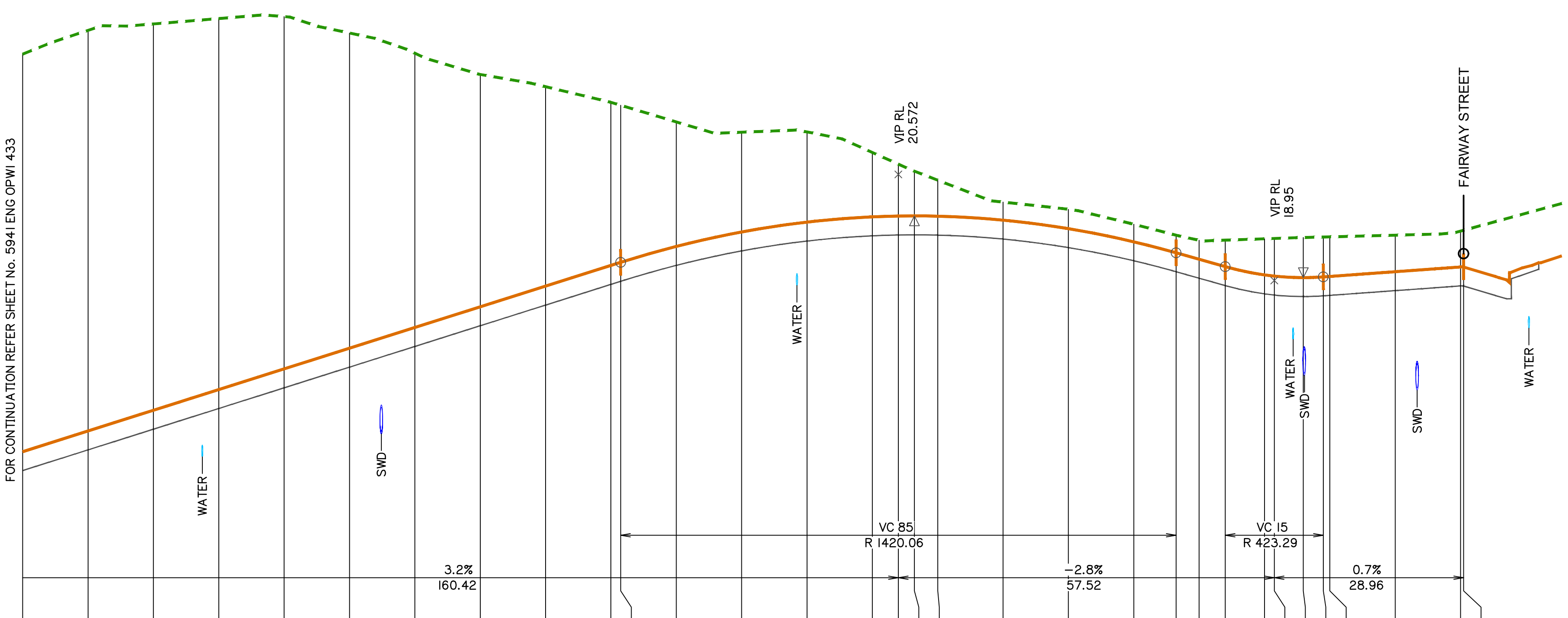
SCALE IN METRES

HOZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 433
Rev. No: C



HORIZONTAL CURVE DATA

VERTICAL CURVE LENGTH (m)
VERTICAL CURVE RADIUS (m)

VERTICAL GEOMETRY GRADE (%)
VERTICAL GEOMETRY LENGTH (m)

DATUM RL = 13.700

CONTROL LINE CHAINAGE	FINISHED SURFACE LEVEL	EXISTING SURFACE LEVEL	CUT / FILL DEPTH
260	16.331	22.414	−6.083
270	16.647	22.777	−6.13
280	16.964	22.876	−5.912
290	17.28	22.958	−5.678
300	17.597	22.988	−5.392
310	17.913	22.737	−4.823
320	18.23	22.427	−4.197
330	18.547	22.103	−3.557
340	18.863	21.916	−3.053
350	19.18	21.676	−2.496
351.485	19.227	21.631	−2.405
360	19.471	21.376	−1.906
370	19.692	21.218	−1.526
380	19.843	21.223	−1.38
390	19.924	20.908	−0.985
393.985	19.936	20.73	−0.794
396.437	19.938	20.623	−0.685
400	19.934	20.485	−0.551
410	19.873	20.149	−0.276
420	19.743	20.038	−0.295
430	19.542	19.81	−0.268
436.485	19.373	19.642	−0.269
440	19.274	19.565	−0.291
444	19.162	19.567	−0.406
450	19.035	19.588	−0.553
451.5	19.016	19.593	−0.576
455.937	18.993	19.607	−0.614
459	19.004	19.615	−0.611
460	19.012	19.617	−0.606
470	19.084	19.643	−0.559
480	19.156	19.705	−0.549
480.461	19.16	19.717	−0.558

LONGITUDINAL SECTION - EASTRIDGE STREET - SHEET 2 OF 2

ROAD LONGITUDINAL SECTION – EASTRIDGE STREET SHEET 2 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 430-437.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD LONGITUDINAL SECTION - EASTRIDGE STREET SHEET 2 OF 2

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

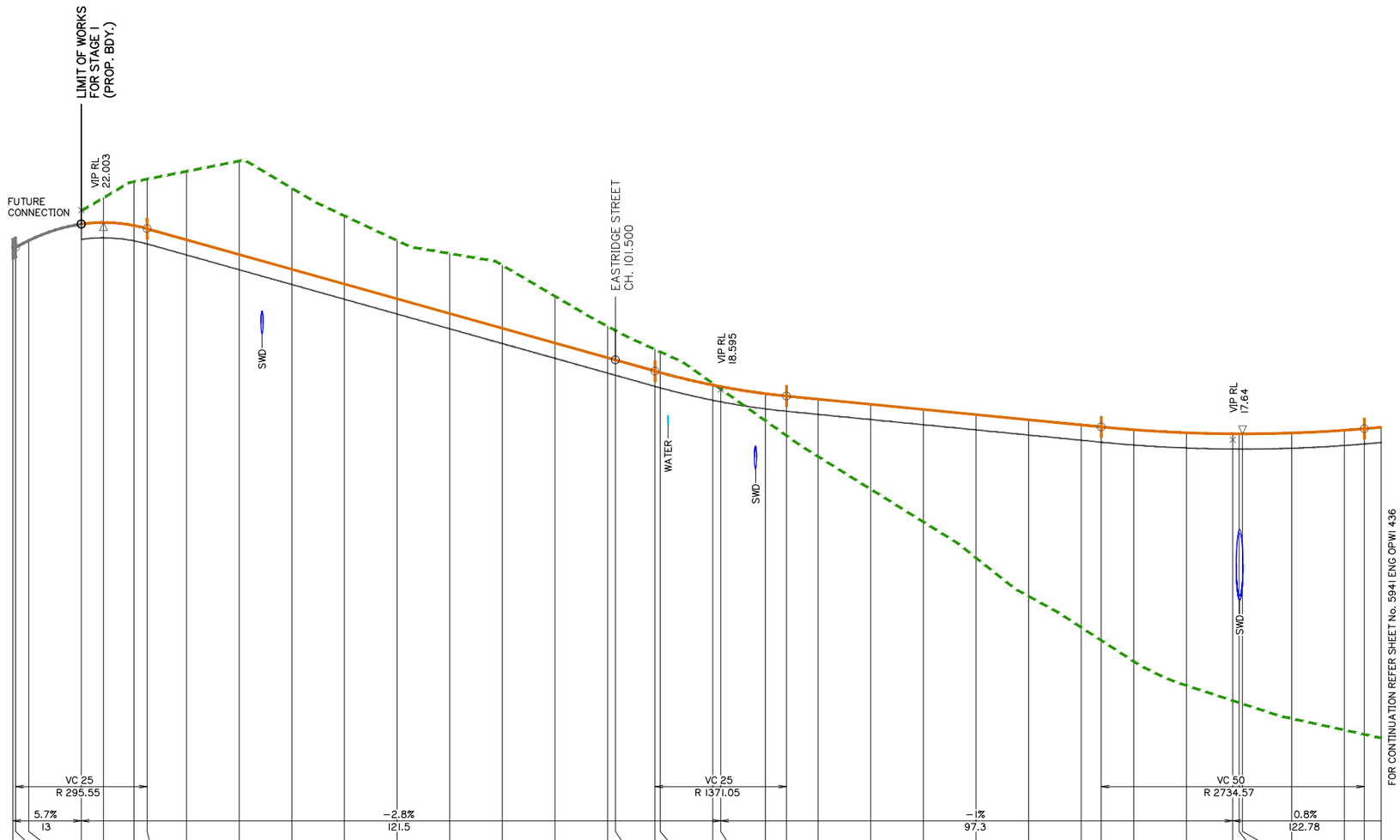
HOZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 434

Rev. No: C



HORIZONTAL CURVE DATA

VERTICAL CURVE LENGTH (m) / VERTICAL CURVE RADIUS (m)		VC 25 R 295.55	VC 25 R 1371.05	VC 50 R 2734.57
VERTICAL GEOMETRY GRADE (%) / VERTICAL GEOMETRY LENGTH (m)	5.7% 13	−2.8% 121.5	1% 97.3	0.8% 122.78

DATUM RL = 9.700

CONTROL LINE CHAINAGE	−13	−12.5	−10	0	4.21	10	12.5	20	30	40	50	60	70	80	90	100	101.5	109	110	120	121.5	130	134	140	150	160	170	180	190	193.8	200	210	218.8	220	220.64	230	240	243.8	247
FINISHED SURFACE LEVEL	21.268	21.296	21.427	21.739	21.769	21.712	21.652	21.442	21.162	20.881	20.601	20.32	20.04	19.759	19.479	19.198	19.156	18.946	18.918	18.681	18.652	18.517	18.472	18.413	18.315	18.217	18.119	18.021	17.923	17.885	17.832	17.774	17.754	17.754	17.754	17.77	17.822	17.852	17.879
EXISTING SURFACE LEVEL				22.238	22.544	22.594	22.741	22.938	22.421	21.896	21.427	21.18	20.956	20.369	19.797	19.717	19.357	19.312	18.712	18.606	18.003	17.719	17.323	16.702	16.081	15.399	14.668	14.077	13.831	13.429	12.972	12.685	12.646	12.625	12.344	12.126	12.043	11.977
CUT / FILL DEPTH				−0.469	−0.832	−0.941	−1.299	−1.776	−1.54	−1.295	−1.107	−1.14	−1.197	−0.89	−0.598	−0.561	−0.412	−0.394	−0.031	0.046	0.515	0.753	1.09	1.613	2.137	2.72	3.352	3.846	4.055	4.402	4.802	5.069	5.108	5.129	5.426	5.696	5.808	5.902

LONGITUDINAL SECTION - FAIRWAY STREET - SHEET 1 OF 2

ROAD LONGITUDINAL SECTION – FAIRWAY STREET SHEET 1 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 430-437.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD LONGITUDINAL SECTION - FAIRWAY STREET SHEET 1 OF 2

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

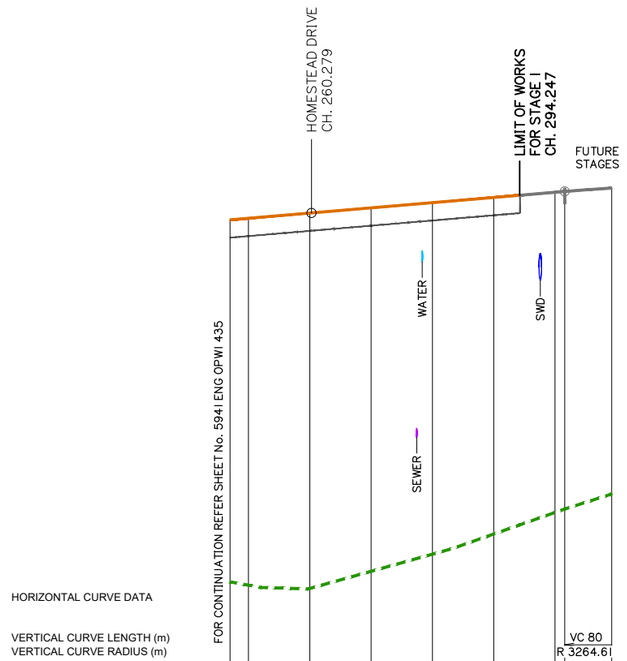
HOZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 435

Rev. No: C



FINISHED SURFACE LEVEL	17.879	17.904	17.989	18.074	18.158	18.243	18.328	18.341	18.397	
EXISTING SURFACE LEVEL	11.977	11.922	11.869	12.149	12.428	12.757	13.108	13.164	13.413	
CUT / FILL DEPTH	5.902	5.982	6.12	5.925	5.731	5.486	5.22	5.177	4.984	
CONTROL LINE CHAINAGE	247	250	260	270	280	290	300	301.583	309.247	

LONGITUDINAL SECTION - FAIRWAY STREET- SHEET 2 OF 2

ROAD LONGITUDINAL SECTION – FAIRWAY STREET SHEET 2 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 430-437.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD LONGITUDINAL SECTION - FAIRWAY STREET SHEET 2 OF 2

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

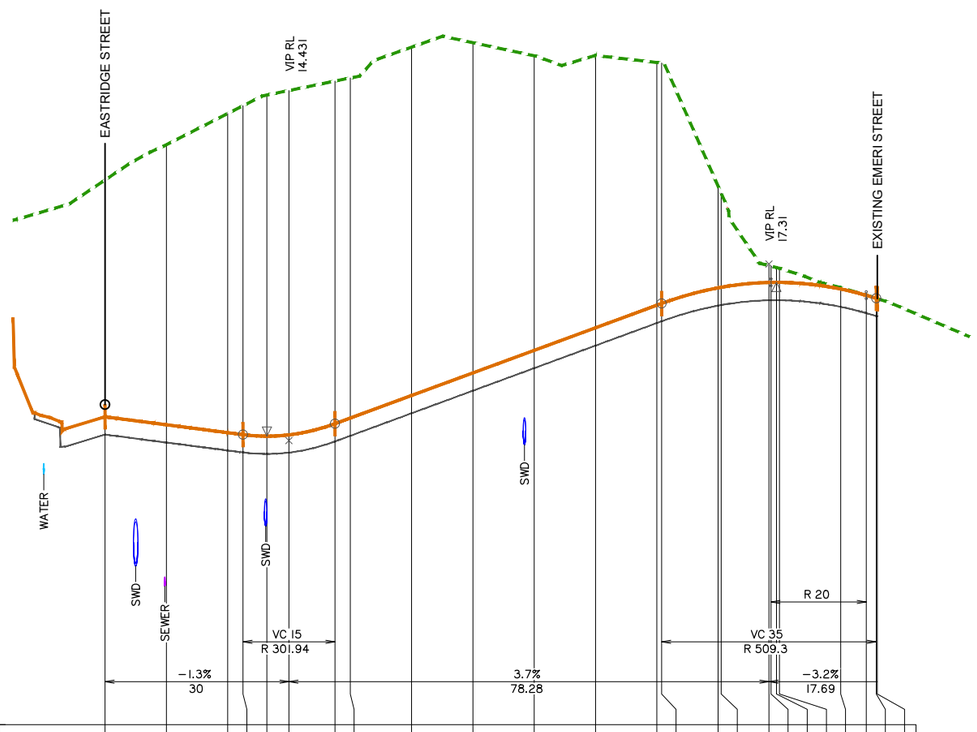
SCALE IN METRES

HOZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 436
Rev. No: C



HORIZONTAL CURVE DATA

VERTICAL CURVE LENGTH (m)
VERTICAL CURVE RADIUS (m)

VERTICAL GEOMETRY GRADE (%)
VERTICAL GEOMETRY LENGTH (m)

DATUM RL = 9.800

FINISHED SURFACE LEVEL	14.818	14.689	14.56	14.528	14.503	14.524	14.707	14.799	15.166	15.534	15.902	16.27	16.637	16.666	16.922	16.931	17.009	17.01	17.01	17.01	16.902	16.8	16.75	16.745
EXISTING SURFACE LEVEL	18.68	19.255	19.762	19.889	20.064	20.138	20.292	20.343	20.845	20.918	20.704	20.71	20.594	20.585	18.578	18.464	17.283	17.275	17.252	17.239	16.925	16.802	16.75	16.745
CUT / FILL DEPTH	-3.861	-4.565	-5.202	-5.362	-5.562	-5.614	-5.585	-5.544	-5.678	-5.384	-4.803	-4.441	-3.957	-3.919	-1.656	-1.533	-0.275	-0.265	-0.242	-0.229	-0.023	-0.003	0	0
CONTROL LINE CHAINAGE	0	10	20	22.5	26.397	30	37.5	40	50	60	70	80	90	90.783	100	100.5	108.283	108.617	109.511	110	120	124.155	125.783	125.961

LONGITUDINAL SECTION - EMERI STREET EXTENSION - SHEET 1 OF 1

ROAD LONGITUDINAL SECTION – EMERI STREET EXTENSION

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 430-437.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1 (B)

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD LONGITUDINAL SECTION - EMERI STREET EXTENSION

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

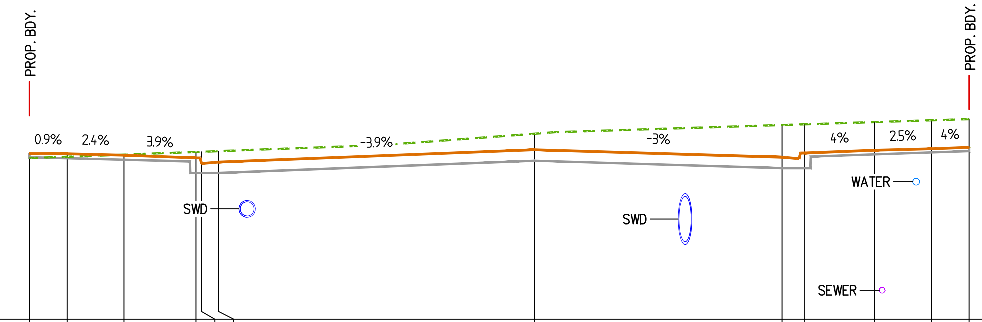
HOZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 437
Rev. No: B

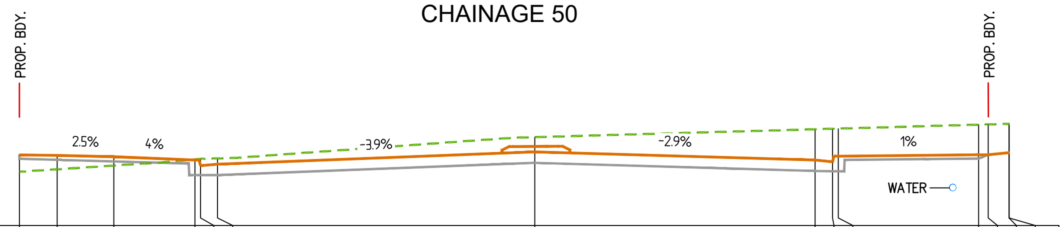
Centreline Data
X = 2210.625
Y = 6993.559
Z = 8.482
DATUM RL 4.000



DESIGN SURFACE	8.384	8.375	8.340	8.266	8.116	8.157	8.482	8.285	8.395	8.469	8.507	8.547
EXISTING SURFACE	8.26	8.297	8.353	8.423	8.429	8.445	8.906	9.136	9.155	9.213	9.261	9.292
OFFSET	−13.364	−12.363	−10.862	−8.957	−8.807	−8.357	0.000	6.550	7.150	9.000	10.500	11.500

CHAINAGE 50

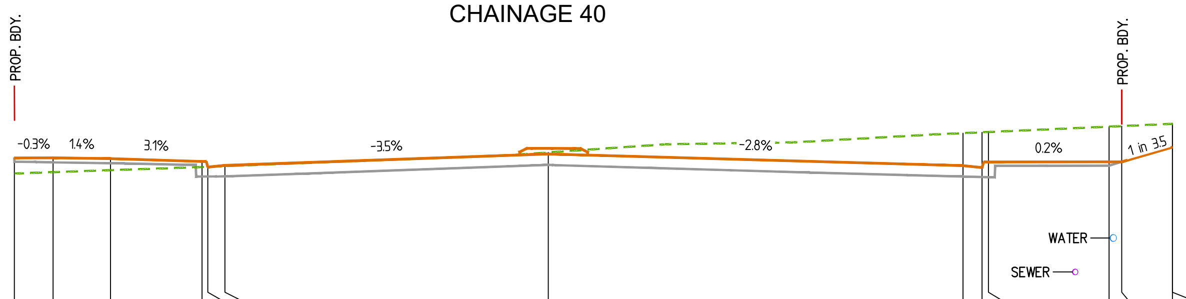
Centreline Data
X = 2205.778
Y = 7002.307
Z = 7.946
DATUM RL 6.000



DESIGN SURFACE	7.864	7.854	7.817	7.731	7.581	7.621	7.946	7.730	7.685	7.833	7.870	7.872	7.925	7.925
EXISTING SURFACE	7.42	7.486	7.584	7.748	7.762	7.774	8.336	8.545	8.558	8.562	8.666	8.674	8.689	8.689
OFFSET	−13.635	−12.635	−11.135	−8.992	−8.842	−8.392	0.000	7.419	7.879	8.032	11.745	12.001	12.550	12.554

CHAINAGE 40

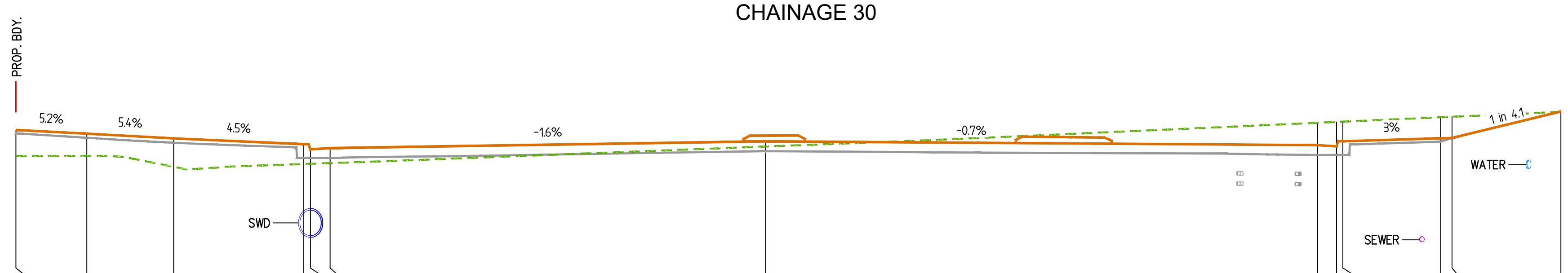
Centreline Data
X = 2200.932
Y = 7011.054
Z = 7.359
DATUM RL 3.500



DESIGN SURFACE	7.252	7.256	7.235	7.161	7.012	7.056	7.359	7.051	7.000	7.146	7.151	7.152	7.538	7.538
EXISTING SURFACE	6.843	6.878	6.93	7.015	7.021	7.038	7.399	7.91	7.932	7.939	8.081	8.096	8.156	8.156
OFFSET	−14.123	−13.102	−11.580	−9.158	−9.007	−8.553	0.000	10.975	11.479	11.647	14.838	15.174	16.517	16.517

CHAINAGE 30

Centreline Data
X = 2196.086
Y = 7019.801
Z = 6.930
DATUM RL 3.000



DESIGN SURFACE	7.264	7.156	7.017	6.845	6.694	6.731	6.930	6.817	6.781	6.932	7.018	7.029	7.807
EXISTING SURFACE	6.494	6.5	6.178	6.261	6.268	6.288	6.777	7.475	7.501	7.509	7.639	7.654	7.799
OFFSET	−22.067	−19.981	−17.421	−13.595	−13.399	−12.817	0.000	16.249	16.808	16.997	19.872	20.208	23.413

CHAINAGE 20

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 1 OF 14

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 1 OF 14

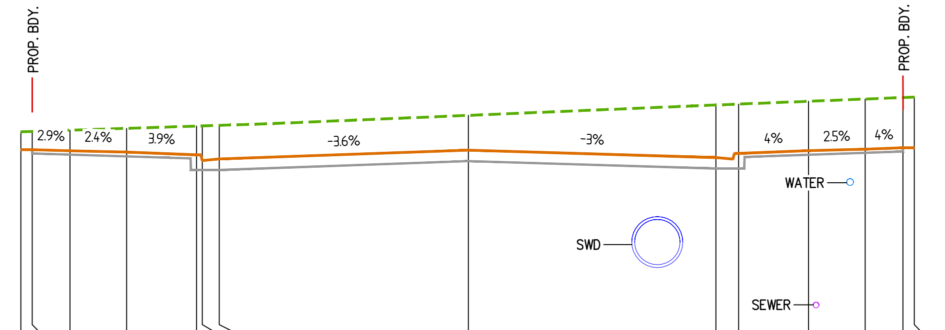
Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 450
Rev. No: C

Centreline Data
X = 2225.163
Y = 6967.317
Z = 9.824

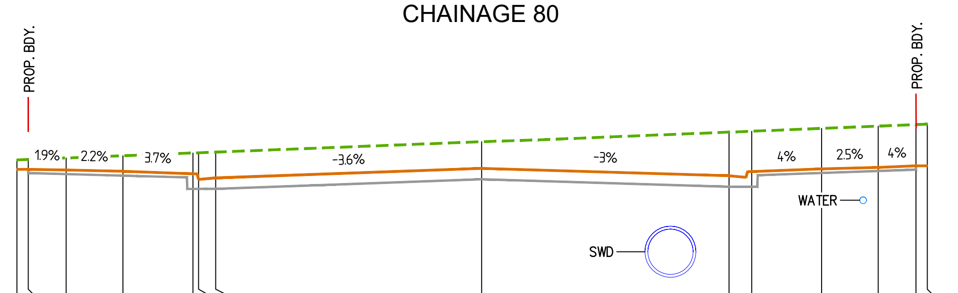


DATUM RL 5.000

DESIGN SURFACE	9.838	9.838	9.808	9.772	9.700	9.550	9.590	9.824	9.628	9.738	9.812	9.849	9.889	9.889
EXISTING SURFACE	10.311	10.321	10.353	10.402	10.463	10.467	10.482	10.747	11.02	11.045	11.119	11.179	11.22	11.232
OFFSET	-11.841	-11.541	-10.541	-9.040	-7.190	-7.040	-6.590	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 80

Centreline Data
X = 2220.317
Y = 6976.065
Z = 9.395

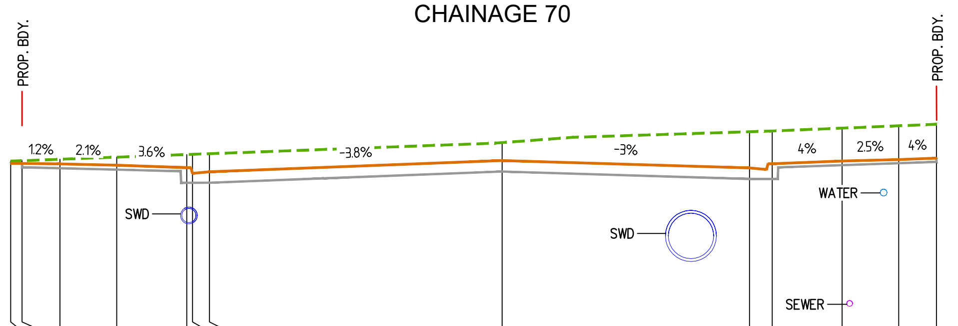


DATUM RL 6.000

DESIGN SURFACE	9.370	9.371	9.351	9.318	9.250	9.101	9.142	9.395	9.199	9.309	9.383	9.420	9.460	9.460
EXISTING SURFACE	9.619	9.631	9.67	9.729	9.801	9.807	9.825	10.1	10.354	10.378	10.452	10.513	10.553	10.565
OFFSET	-12.303	-12.002	-10.999	-9.496	-7.641	-7.491	-7.040	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 70

Centreline Data
X = 2215.471
Y = 6984.812
Z = 8.961

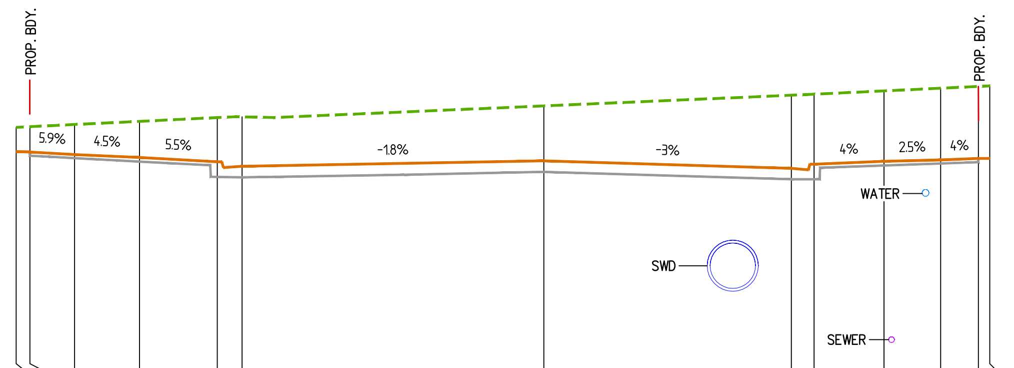


DATUM RL 4.500

DESIGN SURFACE	8.883	8.884	8.872	8.840	8.772	8.623	8.664	8.961	8.765	8.875	8.949	8.986	9.026
EXISTING SURFACE	8.946	8.957	8.994	9.05	9.119	9.124	9.141	9.434	9.722	9.741	9.817	9.878	9.919
OFFSET	-13.008	-12.708	-11.705	-10.201	-8.347	-8.196	-7.745	0.000	6.550	7.150	9.000	10.500	11.500

CHAINAGE 60

Centreline Data
X = 2234.855
Y = 6949.823
Z = 10.558

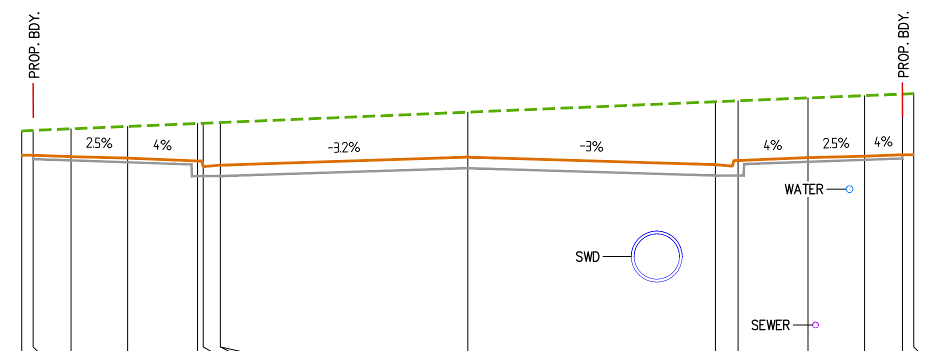


DATUM RL 5.000

DESIGN SURFACE	10.804	10.794	10.725	10.648	10.535	10.414	10.558	10.362	10.472	10.546	10.583	10.623	10.623
EXISTING SURFACE	11.445	11.463	11.52	11.603	11.702	11.722	12.011	12.293	12.32	12.407	12.478	12.525	12.54
OFFSET	-13.960	-13.597	-12.415	-10.697	-8.641	-7.985	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 100

Centreline Data
X = 2230.009
Y = 6958.570
Z = 10.217



DATUM RL 5.000

DESIGN SURFACE	10.268	10.268	10.230	10.193	10.119	9.969	10.009	10.009	10.217	10.021	10.131	10.205	10.242	10.282	10.282
EXISTING SURFACE	10.914	10.926	10.968	11.031	11.109	11.115	11.134	11.134	11.409	11.684	11.709	11.786	11.846	11.887	11.899
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-7.000	-6.550	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 90

ROAD CROSS SECTIONS — HOMESTEAD DRIVE SHEET 2 OF 14

\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

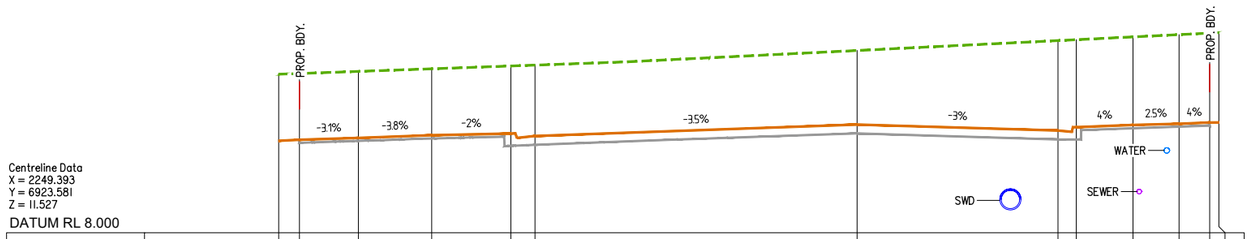
DRAWING TITLE
ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 2 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 451
Rev. No: C

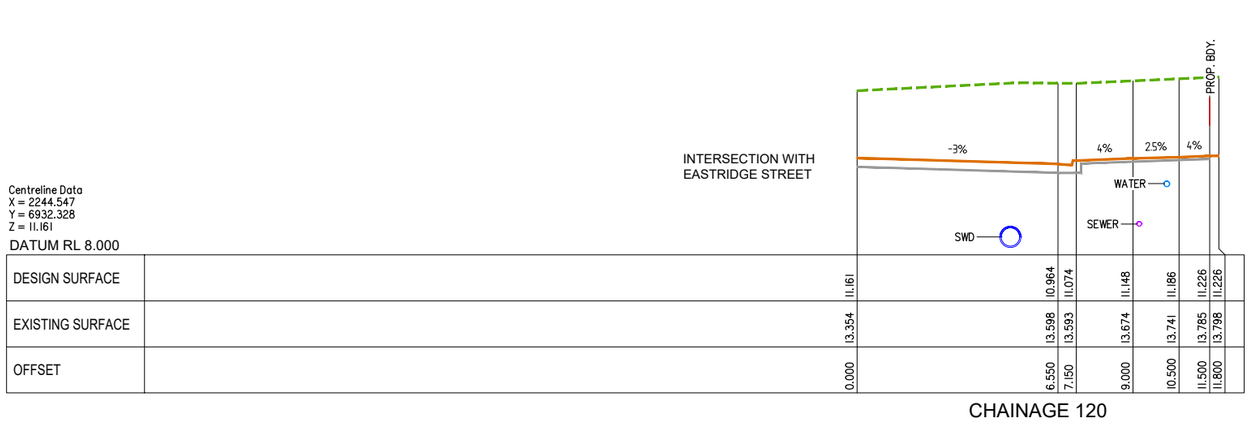


Centreline Data
X = 2249.393
Y = 6923.581
Z = 11.527

DATUM RL 8.000

DESIGN SURFACE	10.996	11.029	11.089	11.179	11.231	11.154	11.527	11.330	11.440	11.514	11.552	11.592	11.592
EXISTING SURFACE	13.167	13.191	13.26	13.345	13.437	13.465	13.941	14.263	14.293	14.384	14.458	14.507	14.522
OFFSET	-18.871	-18.194	-16.273	-13.878	-11.296	-10.511	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 130

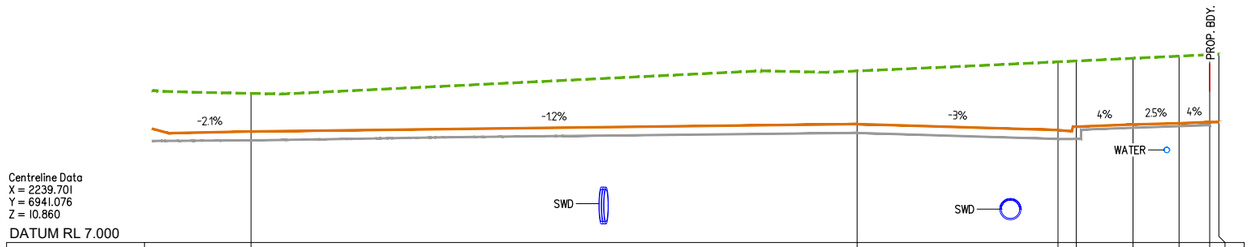


Centreline Data
X = 2244.547
Y = 6932.328
Z = 11.161

DATUM RL 8.000

DESIGN SURFACE							11.161	10.964	11.074	11.148	11.186	11.226	11.226
EXISTING SURFACE							13.354	13.598	13.593	13.674	13.741	13.785	13.798
OFFSET							0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 120



Centreline Data
X = 2239.701
Y = 6941.076
Z = 10.860

DATUM RL 7.000

DESIGN SURFACE	10.619						10.860	10.664	10.774	10.848	10.885	10.925	10.925
EXISTING SURFACE	11.861						12.592	12.889	12.917	13.005	13.076	13.123	13.137
OFFSET	-19.773						0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 110

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 3 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esit 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 3 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

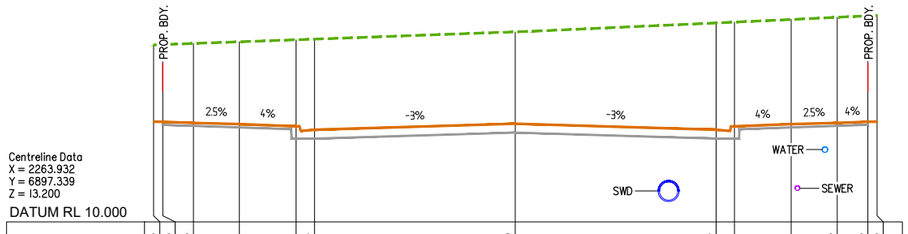
SCALE IN METRES

Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 452
Rev. No: C

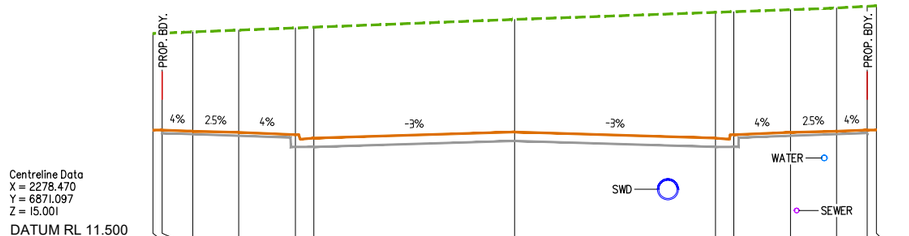


Centreline Data
X = 2263.932
Y = 6897.339
Z = 13.200

DATUM RL 10.000

DESIGN SURFACE	13.265	13.265	13.225	13.188	13.114	13.004	13.200	13.004	13.114	13.188	13.225	13.265	13.265
EXISTING SURFACE	15.77	15.78	15.816	15.871	15.937	15.959	16.195	16.486	16.513	16.599	16.67	16.718	16.732
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 160

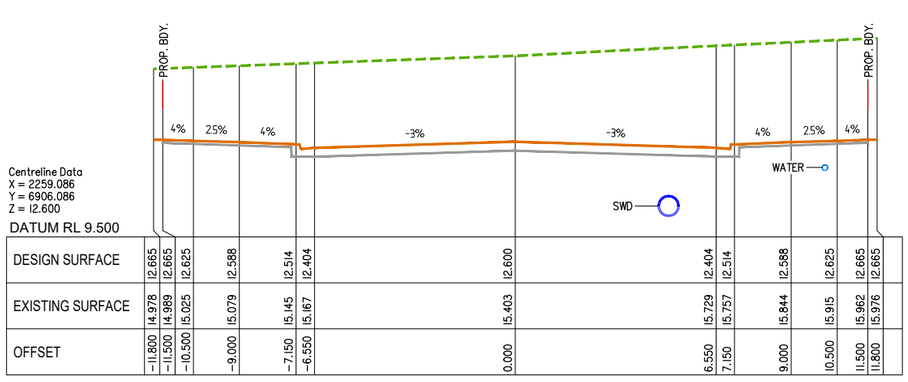


Centreline Data
X = 2278.470
Y = 6871.097
Z = 15.001

DATUM RL 11.500

DESIGN SURFACE	15.066	15.066	15.026	14.988	14.914	14.804	15.001	14.804	14.914	14.988	15.026	15.066	15.066
EXISTING SURFACE	18.216	18.227	18.265	18.323	18.395	18.418	18.672	18.903	18.924	18.989	19.045	19.101	19.118
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 190

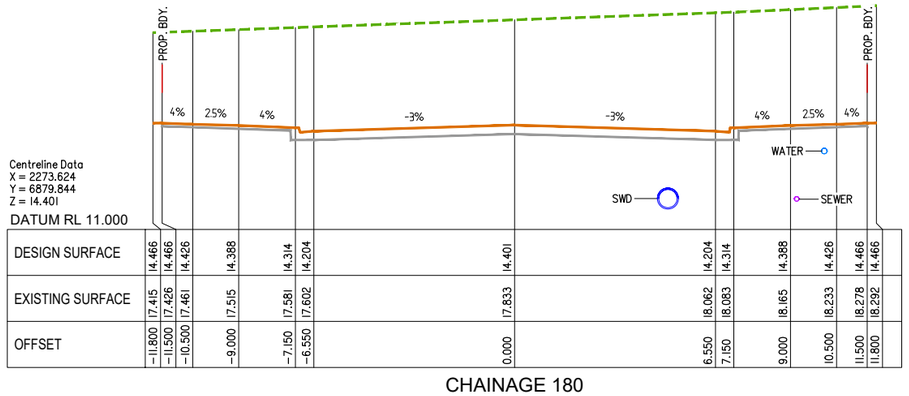


Centreline Data
X = 2259.086
Y = 6906.086
Z = 12.600

DATUM RL 9.500

DESIGN SURFACE	12.665	12.665	12.625	12.588	12.514	12.404	12.600	12.404	12.514	12.588	12.625	12.665	12.665
EXISTING SURFACE	14.978	14.989	15.025	15.079	15.145	15.167	15.403	15.729	15.757	15.844	15.915	15.962	15.976
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 150

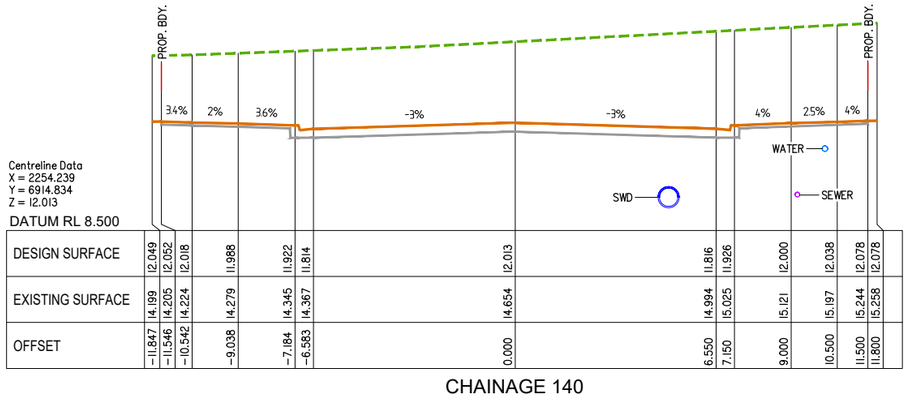


Centreline Data
X = 2273.624
Y = 6879.844
Z = 14.401

DATUM RL 11.000

DESIGN SURFACE	14.466	14.466	14.426	14.388	14.314	14.204	14.401	14.204	14.314	14.388	14.426	14.466	14.466
EXISTING SURFACE	17.415	17.426	17.461	17.515	17.581	17.602	17.833	18.062	18.083	18.165	18.233	18.278	18.292
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 180

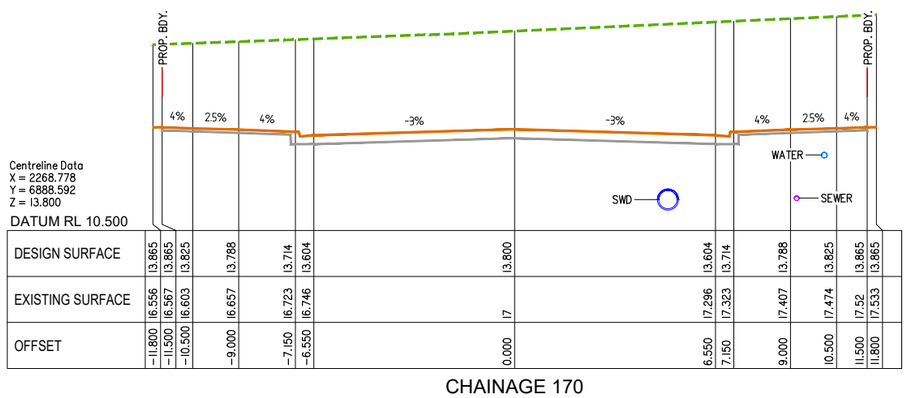


Centreline Data
X = 2254.239
Y = 6914.834
Z = 12.013

DATUM RL 8.500

DESIGN SURFACE	12.049	12.052	12.018	11.988	11.922	11.814	12.013	11.816	11.926	12.000	12.038	12.078	12.078
EXISTING SURFACE	14.199	14.205	14.224	14.279	14.345	14.367	14.654	14.994	15.025	15.121	15.197	15.244	15.258
OFFSET	-11.847	-11.546	-10.542	-9.038	-7.184	-6.583	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 140



Centreline Data
X = 2268.778
Y = 6888.592
Z = 13.800

DATUM RL 10.500

DESIGN SURFACE	13.865	13.865	13.825	13.788	13.714	13.604	13.800	13.604	13.714	13.788	13.825	13.865	13.865
EXISTING SURFACE	16.556	16.567	16.603	16.657	16.723	16.746	17	17.296	17.323	17.407	17.474	17.52	17.533
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 170

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 4 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

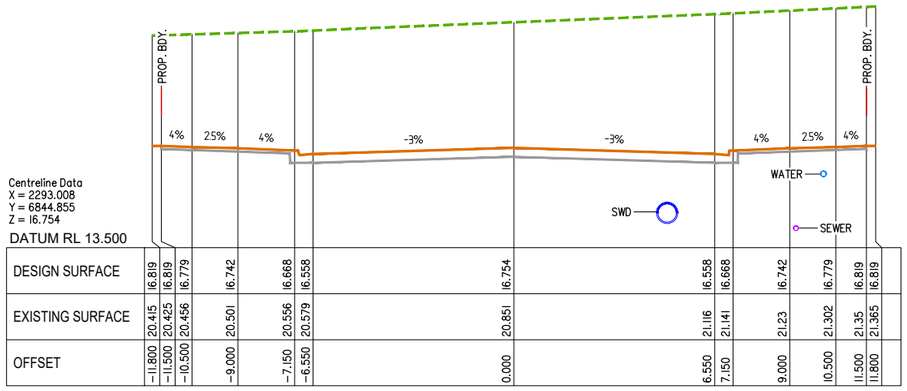
DRAWING TITLE
ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 4 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 453
Rev. No: C

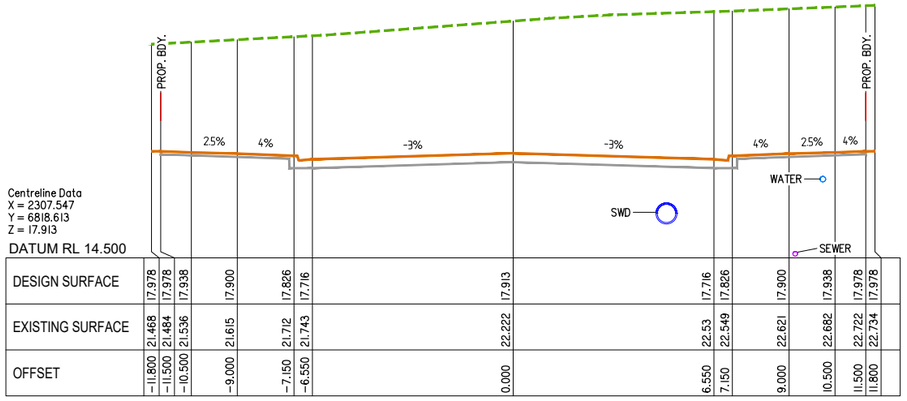


Centreline Data
X = 2293.008
Y = 6844.855
Z = 16.754

DATUM RL 13.500

DESIGN SURFACE	16.819	16.819	16.779	16.742	16.668	16.558	16.754	16.558	16.668	16.742	16.779	16.819	16.819
EXISTING SURFACE	20.415	20.425	20.456	20.501	20.556	20.579	20.851	21.116	21.141	21.23	21.302	21.35	21.365
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 220

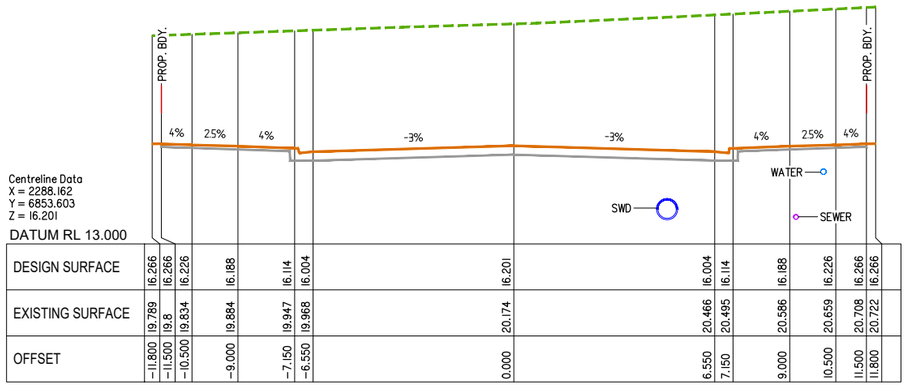


Centreline Data
X = 2307.547
Y = 6818.613
Z = 17.913

DATUM RL 14.500

DESIGN SURFACE	17.978	17.978	17.938	17.900	17.826	17.716	17.913	17.716	17.826	17.900	17.938	17.978	17.978
EXISTING SURFACE	21.468	21.484	21.536	21.615	21.712	21.743	22.222	22.53	22.549	22.621	22.682	22.722	22.734
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 250

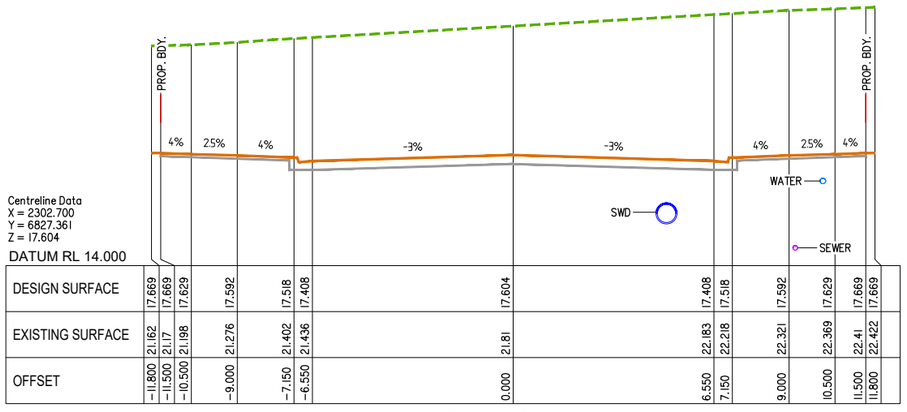


Centreline Data
X = 2288.162
Y = 6853.603
Z = 16.201

DATUM RL 13.000

DESIGN SURFACE	16.266	16.266	16.226	16.188	16.114	16.004	16.201	16.004	16.114	16.188	16.226	16.266	16.266
EXISTING SURFACE	19.789	19.8	19.834	19.884	19.947	19.968	20.174	20.466	20.495	20.586	20.659	20.708	20.722
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 210

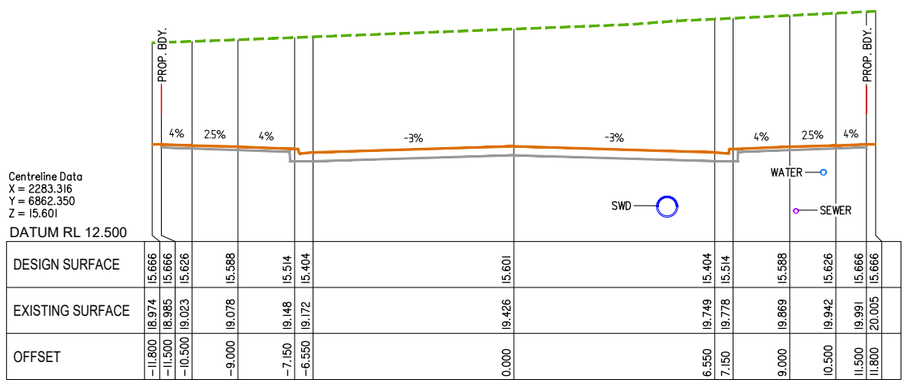


Centreline Data
X = 2302.700
Y = 6827.361
Z = 17.604

DATUM RL 14.000

DESIGN SURFACE	17.669	17.669	17.629	17.592	17.518	17.408	17.604	17.408	17.518	17.592	17.629	17.669	17.669
EXISTING SURFACE	21.162	21.17	21.198	21.276	21.402	21.436	21.81	22.183	22.218	22.321	22.369	22.41	22.422
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 240

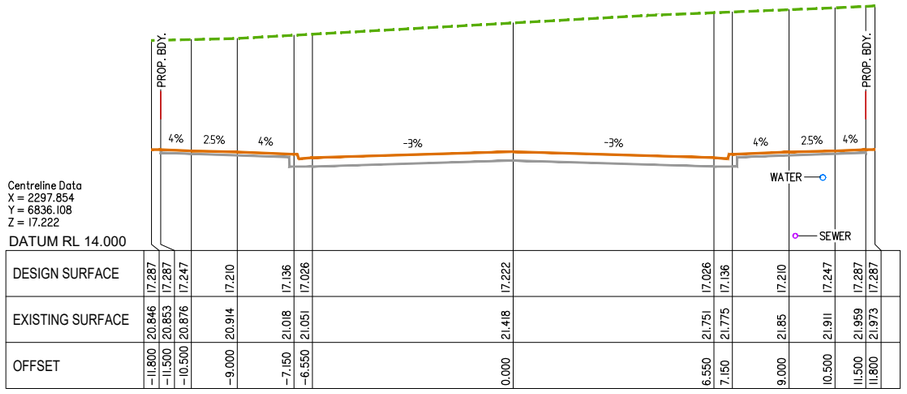


Centreline Data
X = 2283.316
Y = 6862.350
Z = 15.601

DATUM RL 12.500

DESIGN SURFACE	15.666	15.666	15.626	15.588	15.514	15.404	15.601	15.404	15.514	15.588	15.626	15.666	15.666
EXISTING SURFACE	18.974	18.985	19.023	19.078	19.148	19.172	19.426	19.749	19.778	19.869	19.942	19.991	20.005
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 200



Centreline Data
X = 2297.854
Y = 6836.108
Z = 17.222

DATUM RL 14.000

DESIGN SURFACE	17.287	17.287	17.247	17.210	17.136	17.026	17.222	17.026	17.136	17.210	17.247	17.287	17.287
EXISTING SURFACE	20.846	20.853	20.876	20.914	21.018	21.051	21.418	21.751	21.775	21.85	21.911	21.959	21.973
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 230

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 5 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 5 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

Scale 1:100 - Lengths are in Metres.

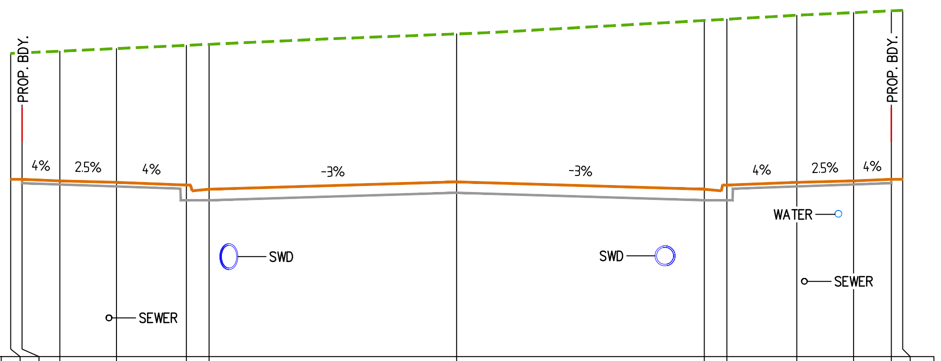
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 454

Rev. No: C

Centreline Data
X = 2322.085
Y = 6792.371
Z = 18.624

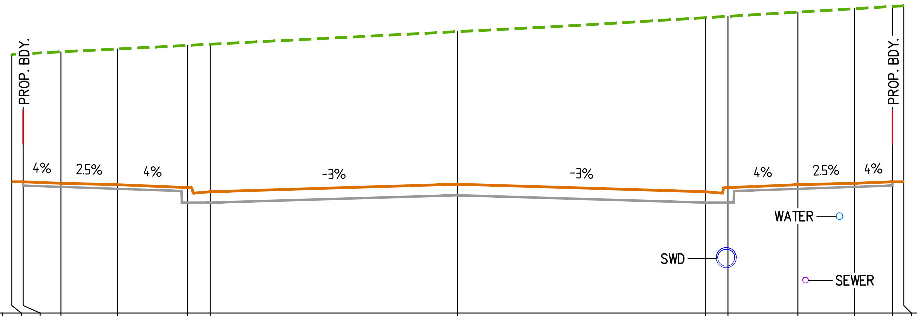


DATUM RL 14.000

DESIGN SURFACE	18.689	18.689	18.649	18.612	18.538	18.428	18.624	18.428	18.538	18.612	18.649	18.689	18.689
EXISTING SURFACE	22.022	22.035	22.081	22.15	22.235	22.262	22.538	22.893	22.926	23.031	23.101	23.147	23.161
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 280

Centreline Data
X = 2336.623
Y = 6766.129
Z = 18.907

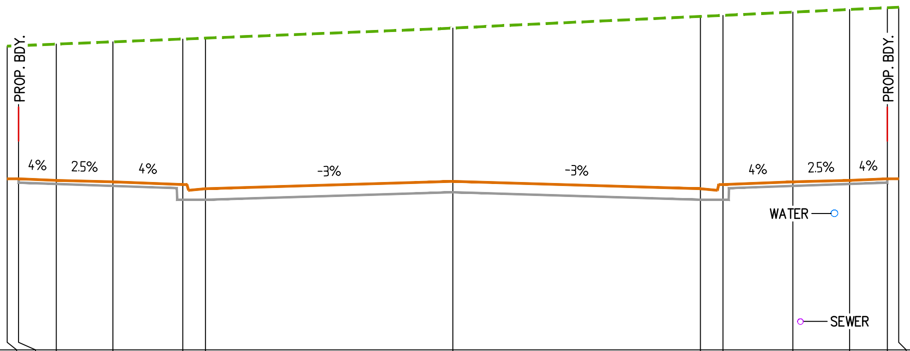


DATUM RL 15.500

DESIGN SURFACE	18.972	18.972	18.932	18.895	18.821	18.711	18.907	18.711	18.821	18.895	18.932	18.972	18.972
EXISTING SURFACE	22.345	22.36	22.411	22.487	22.582	22.612	22.946	23.314	23.351	23.462	23.552	23.612	23.63
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 310

Centreline Data
X = 2317.239
Y = 6801.119
Z = 18.460

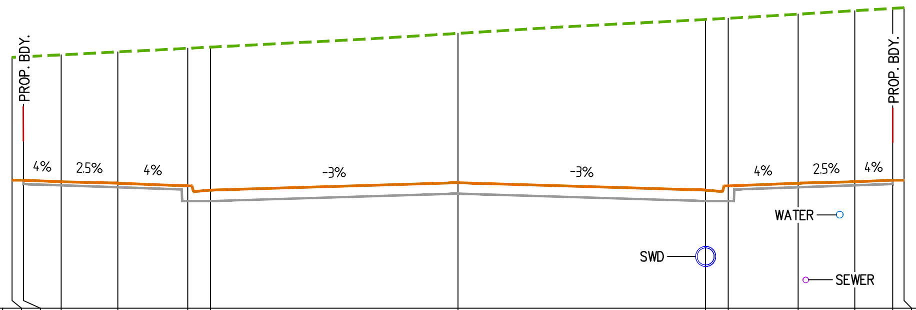


DATUM RL 14.000

DESIGN SURFACE	18.525	18.525	18.485	18.447	18.373	18.263	18.460	18.263	18.373	18.447	18.485	18.525	18.525
EXISTING SURFACE	22.036	22.048	22.089	22.149	22.223	22.247	22.513	22.822	22.85	22.936	23.005	23.052	23.066
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 270

Centreline Data
X = 2331.777
Y = 6774.877
Z = 18.815

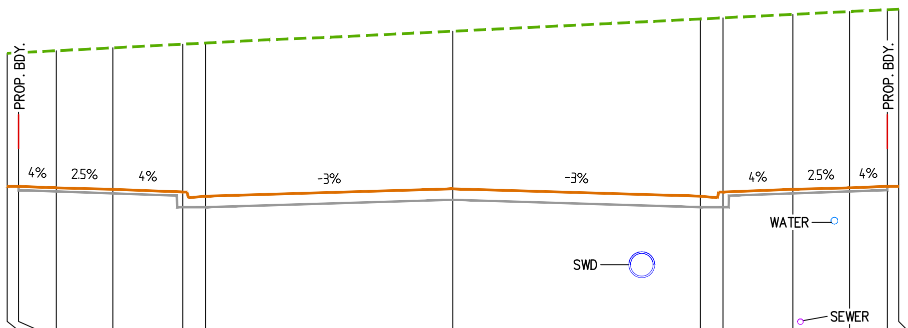


DATUM RL 15.500

DESIGN SURFACE	18.880	18.880	18.840	18.803	18.729	18.619	18.815	18.619	18.729	18.803	18.840	18.880	18.880
EXISTING SURFACE	22.125	22.14	22.192	22.269	22.364	22.395	22.758	23.126	23.158	23.266	23.357	23.418	23.437
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 300

Centreline Data
X = 2312.393
Y = 6809.866
Z = 18.212

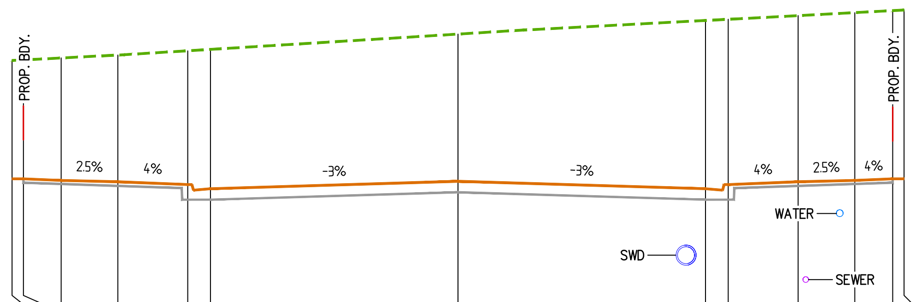


DATUM RL 14.500

DESIGN SURFACE	18.277	18.277	18.237	18.199	18.125	18.015	18.212	18.015	18.125	18.199	18.237	18.277	18.277
EXISTING SURFACE	21.802	21.818	21.87	21.948	22.044	22.075	22.388	22.712	22.742	22.834	22.909	22.956	22.97
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 260

Centreline Data
X = 2326.931
Y = 6783.624
Z = 18.723



DATUM RL 15.500

DESIGN SURFACE	18.788	18.788	18.748	18.710	18.636	18.526	18.723	18.526	18.636	18.710	18.748	18.788	18.788
EXISTING SURFACE	21.924	21.939	21.991	22.068	22.181	22.218	22.624	22.984	23.016	23.113	23.192	23.245	23.261
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 290

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 6 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

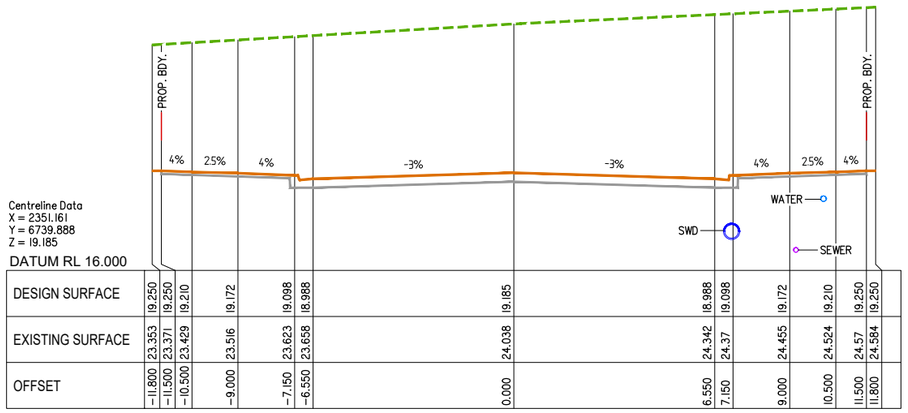
DRAWING TITLE
ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 6 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 455
Rev. No: C

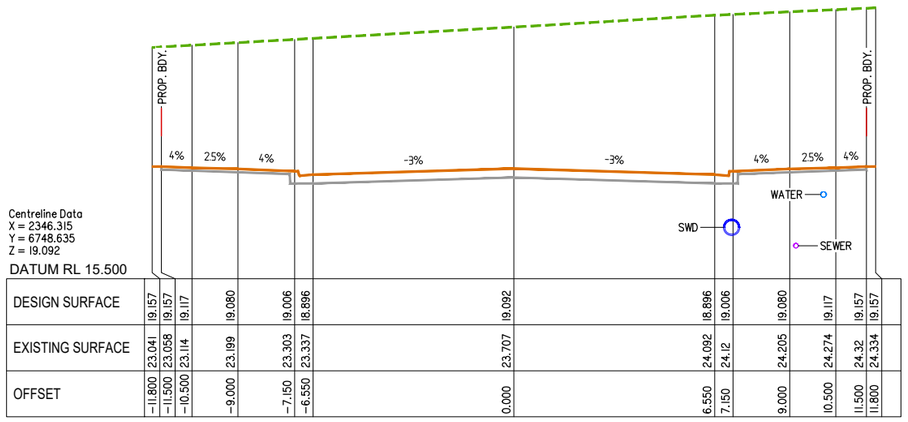


Centreline Data
X = 2351.161
Y = 6739.888
Z = 19.185

DATUM RL 16.000

DESIGN SURFACE	19.250	19.250	19.210	19.172	19.098	18.988	19.185	18.988	19.098	19.172	19.210	19.250	19.250
EXISTING SURFACE	23.353	23.371	23.429	23.516	23.623	23.658	24.038	24.342	24.37	24.455	24.524	24.57	24.584
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 340

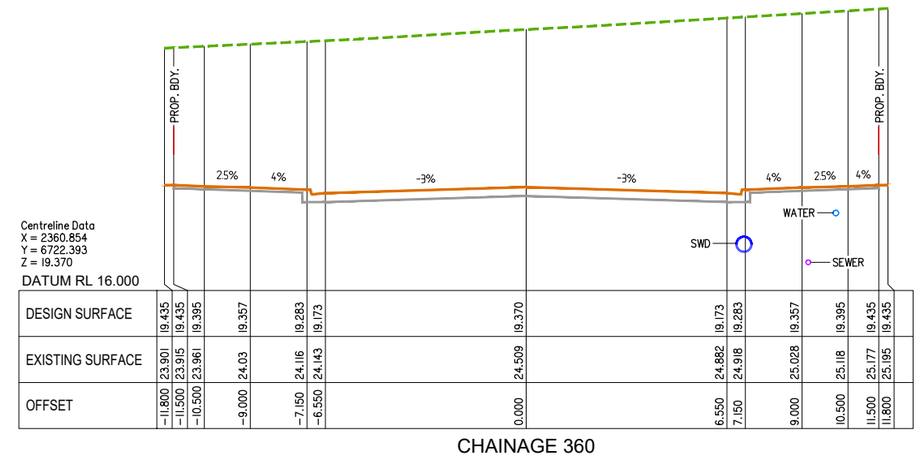


Centreline Data
X = 2346.315
Y = 6748.635
Z = 19.092

DATUM RL 15.500

DESIGN SURFACE	19.157	19.157	19.117	19.080	19.006	18.896	19.092	18.896	19.006	19.080	19.117	19.157	19.157
EXISTING SURFACE	23.041	23.058	23.114	23.199	23.303	23.337	23.707	24.092	24.12	24.205	24.274	24.32	24.334
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 330

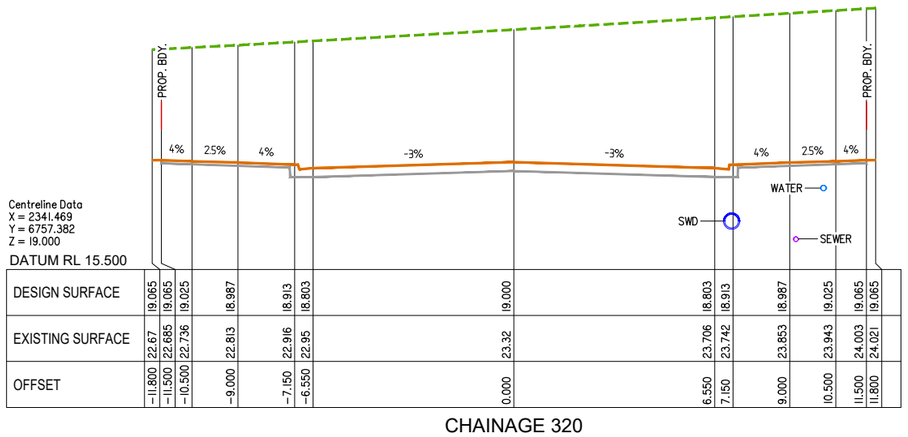


Centreline Data
X = 2360.854
Y = 6722.393
Z = 19.370

DATUM RL 16.000

DESIGN SURFACE	19.435	19.435	19.395	19.357	19.283	19.173	19.370	19.173	19.283	19.357	19.395	19.435	19.435
EXISTING SURFACE	23.901	23.915	23.961	24.03	24.116	24.143	24.509	24.882	24.918	25.028	25.118	25.177	25.195
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 360

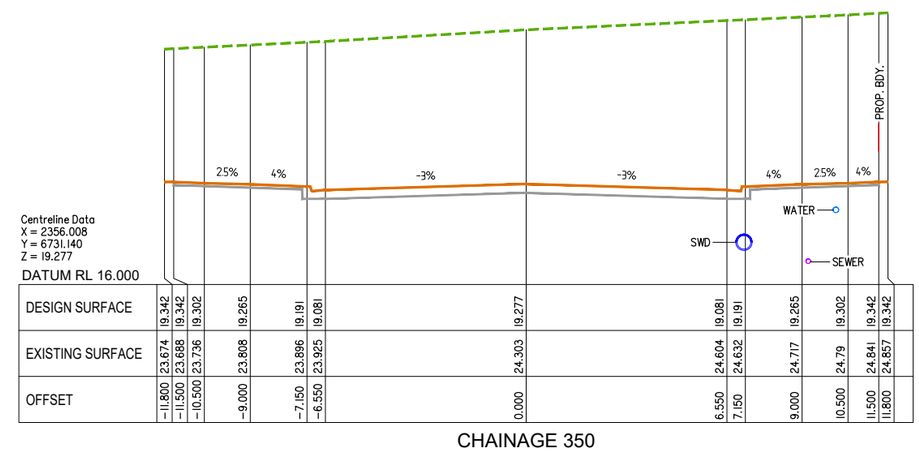


Centreline Data
X = 2341.469
Y = 6757.382
Z = 19.000

DATUM RL 15.500

DESIGN SURFACE	19.065	19.065	19.025	18.987	18.913	18.803	19.000	18.803	18.913	18.987	19.025	19.065	19.065
EXISTING SURFACE	22.67	22.685	22.736	22.813	22.916	22.95	23.32	23.706	23.742	23.853	23.943	24.003	24.021
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 320



Centreline Data
X = 2356.008
Y = 6731.140
Z = 19.277

DATUM RL 16.000

DESIGN SURFACE	19.342	19.342	19.302	19.265	19.191	19.081	19.277	19.081	19.191	19.265	19.302	19.342	19.342
EXISTING SURFACE	23.674	23.688	23.736	23.808	23.896	23.925	24.303	24.604	24.632	24.717	24.79	24.841	24.857
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 350

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 7 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esit 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 7 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

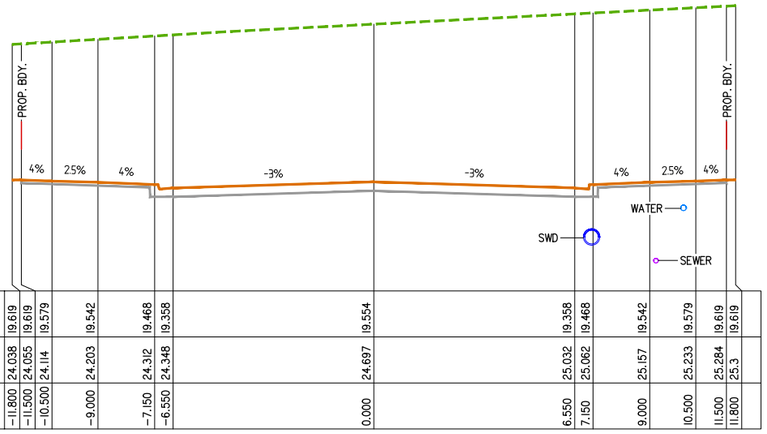
Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 456

Rev. No: C

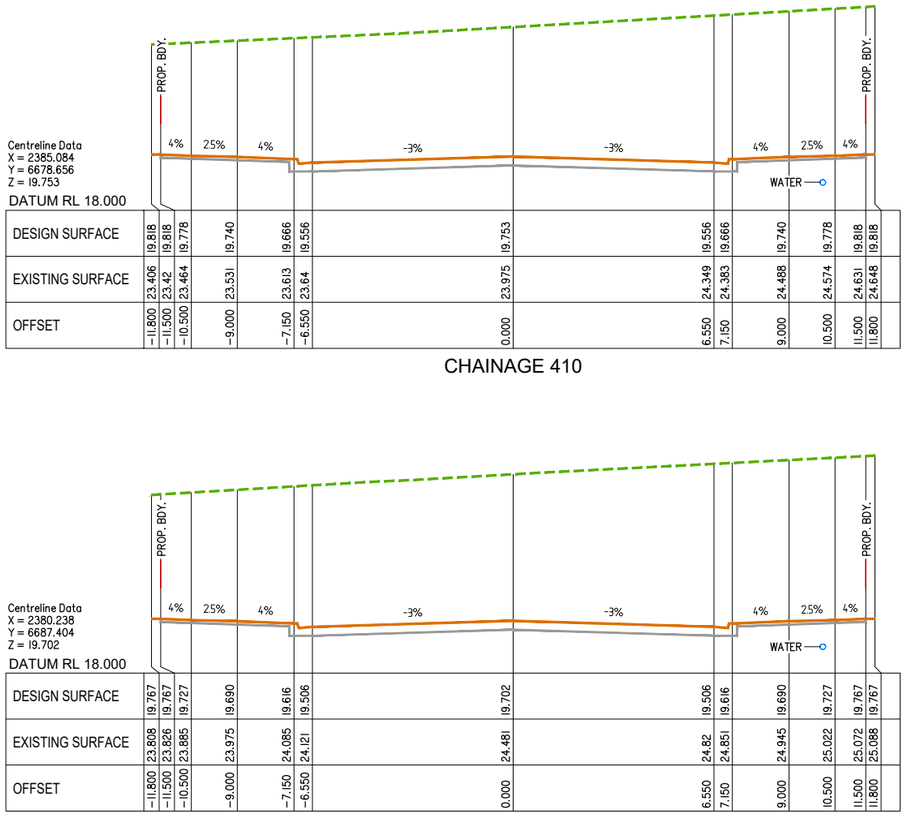


Centreline Data
X = 2370.546
Y = 6704.898
Z = 19.554

DATUM RL 16.000

DESIGN SURFACE	19.619	19.619	19.579	19.542	19.468	19.358	19.554	19.358	19.468	19.542	19.579	19.619	19.619											
EXISTING SURFACE	24.038	24.055	24.114	24.203	24.312	24.348	24.697	25.032	25.062	25.157	25.233	25.284	25.3											
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800											

CHAINAGE 380

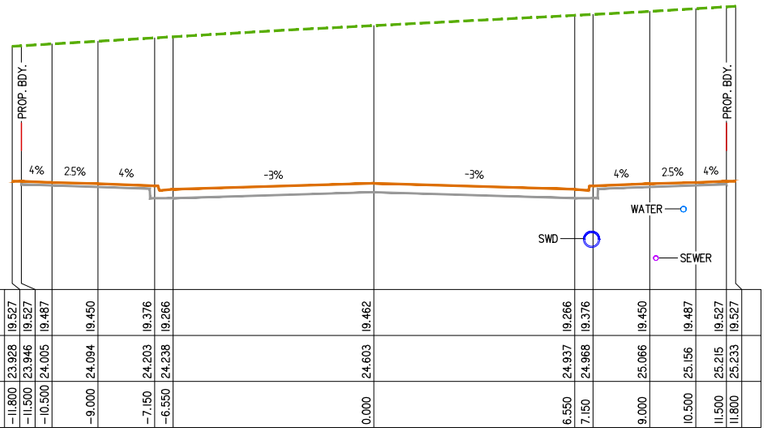


Centreline Data
X = 2380.238
Y = 6687.404
Z = 19.702

DATUM RL 18.000

DESIGN SURFACE	19.767	19.767	19.727	19.690	19.616	19.506	19.702	19.506	19.616	19.690	19.727	19.767	19.767											
EXISTING SURFACE	23.808	23.826	23.885	23.975	24.085	24.121	24.481	24.82	24.851	24.945	25.022	25.072	25.088											
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800											

CHAINAGE 400

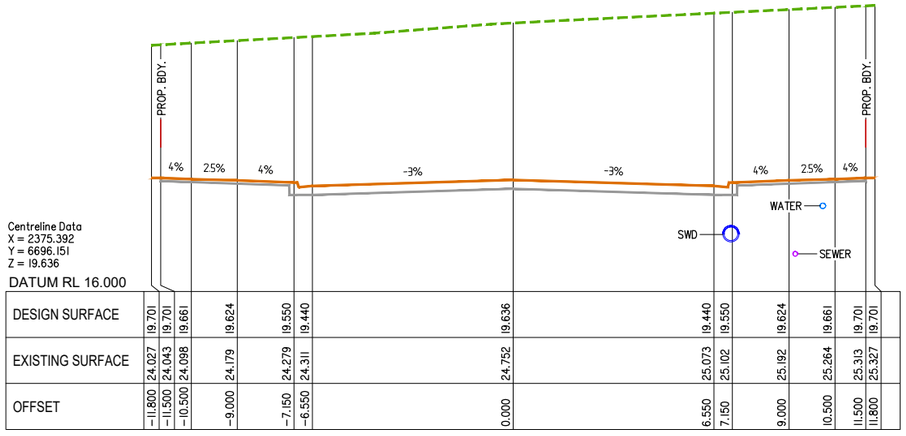


Centreline Data
X = 2365.700
Y = 6713.646
Z = 19.462

DATUM RL 16.000

DESIGN SURFACE	19.527	19.527	19.487	19.450	19.376	19.266	19.462	19.266	19.376	19.450	19.487	19.527	19.527											
EXISTING SURFACE	23.928	23.946	24.005	24.094	24.203	24.238	24.603	24.937	24.968	25.066	25.156	25.215	25.233											
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800											

CHAINAGE 370



Centreline Data
X = 2375.392
Y = 6696.151
Z = 19.636

DATUM RL 16.000

DESIGN SURFACE	19.701	19.701	19.661	19.624	19.550	19.440	19.636	19.440	19.550	19.624	19.661	19.701	19.701											
EXISTING SURFACE	24.027	24.043	24.098	24.179	24.279	24.311	24.752	25.073	25.102	25.192	25.264	25.313	25.327											
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800											

CHAINAGE 390

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 8 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 8 OF 14

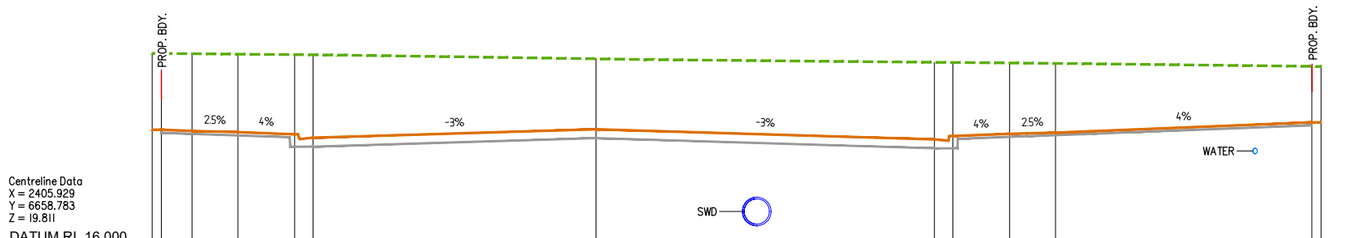
Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 457
Rev. No: C

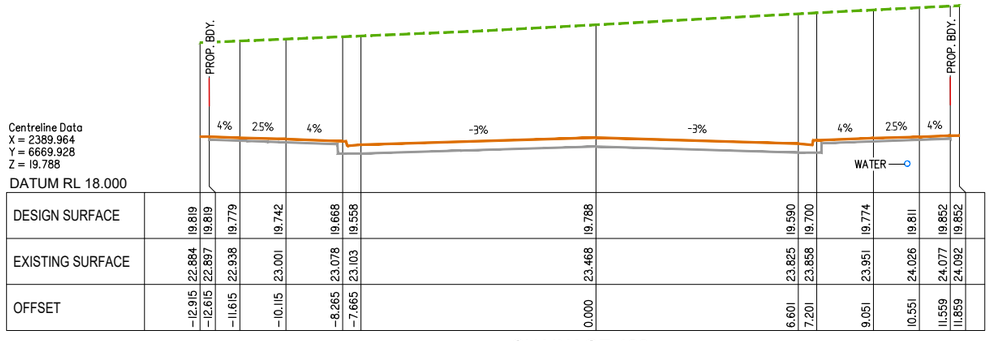


DESIGN SURFACE	19.795	19.795	19.755	19.718	19.644	19.534	19.811	19.479	19.589	19.663	19.701	20.035	20.035
EXISTING SURFACE	22.285	22.282	22.273	22.259	22.242	22.237	22.108	21.994	21.989	21.972	21.958	21.862	21.858
OFFSET	-14.478	-14.178	-13.178	-11.678	-9.828	-9.228	0.000	11.041	11.641	13.491	14.991	23.353	23.653

CHAINAGE 440

DESIGN SURFACE	19.801	19.801	19.761	19.723	19.649	19.539	19.807	19.518	19.628	19.702	19.739	19.821	19.821
EXISTING SURFACE	22.572	22.577	22.595	22.621	22.654	22.664	22.839	23.085	23.1	23.145	23.179	23.224	23.231
OFFSET	-14.175	-13.875	-12.875	-11.375	-9.525	-8.925	0.000	9.642	10.242	12.092	13.592	15.644	15.944

CHAINAGE 430



DESIGN SURFACE	19.819	19.819	19.779	19.742	19.668	19.558	19.788	19.590	19.700	19.774	19.811	19.852	19.852
EXISTING SURFACE	22.884	22.897	22.938	23.001	23.078	23.103	23.468	23.825	23.858	23.951	24.026	24.077	24.092
OFFSET	-12.915	-12.615	-11.615	-10.115	-8.265	-7.665	0.000	6.601	7.201	9.051	10.551	11.559	11.859

CHAINAGE 420

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 9 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esit 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 9 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

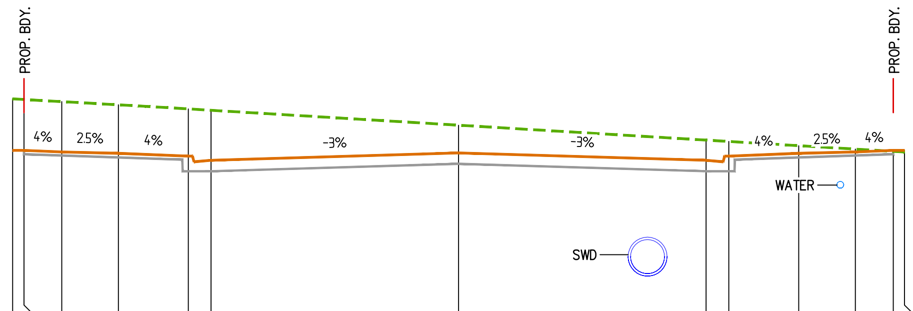
Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 458
Rev. No: C

Centreline Data
X = 2433.840
Y = 6667.240
Z = 19.728

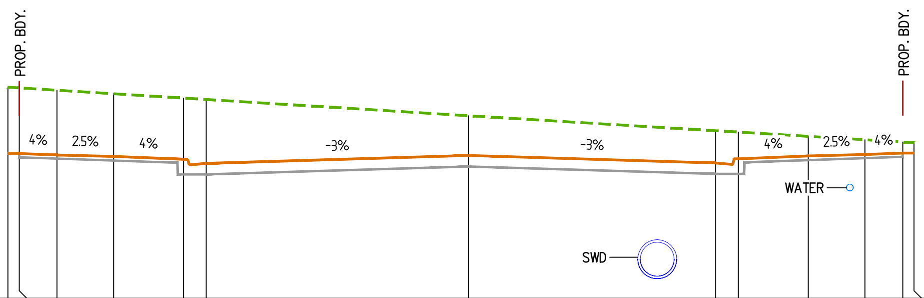


DATUM RL 15.500

DESIGN SURFACE	19.793	19.793	19.753	19.715	19.641	19.531	19.728	19.531	19.641	19.715	19.753	19.793	19.793
EXISTING SURFACE	21.156	21.139	21.083	20.999	20.891	20.855	20.46	20.065	20.029	19.918	19.827	19.767	19.749
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 470

Centreline Data
X = 2425.093
Y = 6662.394
Z = 19.771

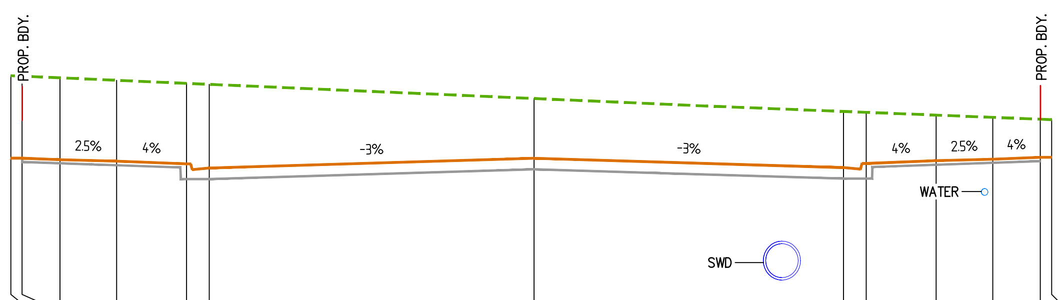


DATUM RL 16.000

DESIGN SURFACE	19.824	19.824	19.784	19.747	19.673	19.563	19.771	19.575	19.685	19.759	19.796	19.836	19.836
EXISTING SURFACE	21.575	21.557	21.495	21.402	21.288	21.251	20.821	20.425	20.389	20.278	20.187	20.127	20.109
OFFSET	-12.188	-11.888	-10.888	-9.388	-7.538	-6.938	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 460

Centreline Data
X = 2415.862
Y = 6658.689
Z = 19.799

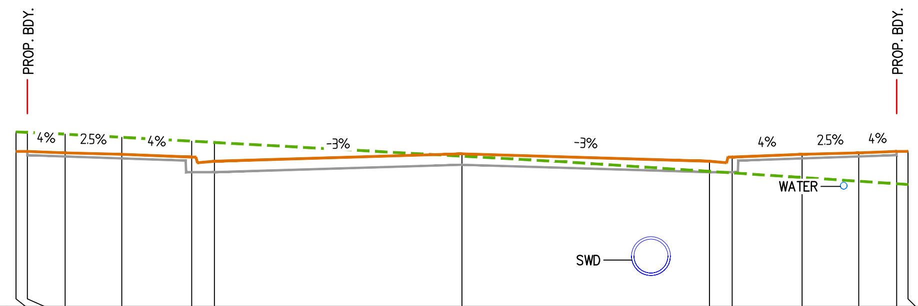


DATUM RL 16.000

DESIGN SURFACE	19.802	19.802	19.762	19.725	19.651	19.541	19.799	19.553	19.663	19.737	19.775	19.825	19.825
EXISTING SURFACE	21.985	21.972	21.929	21.863	21.782	21.756	21.381	21.039	21.015	20.942	20.883	20.833	20.821
OFFSET	-13.845	-13.545	-12.545	-11.045	-9.195	-8.595	0.000	8.187	8.787	10.637	12.137	13.393	13.693

CHAINAGE 450

Centreline Data
X = 2460.082
Y = 6681.778
Z = 19.542

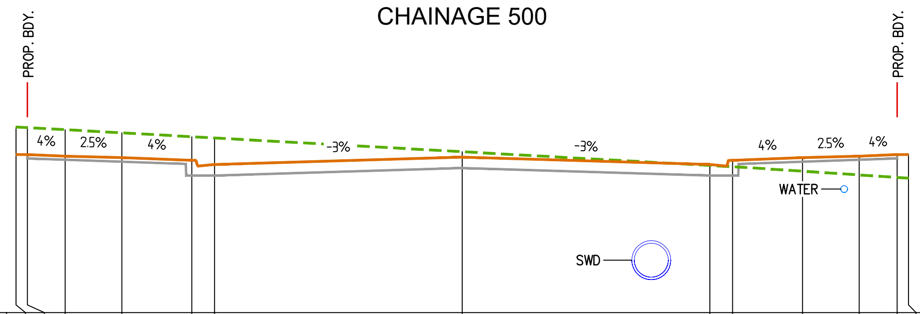


DATUM RL 15.500

DESIGN SURFACE	19.607	19.607	19.567	19.529	19.455	19.345	19.542	19.345	19.455	19.529	19.567	19.607	19.607
EXISTING SURFACE	20.123	20.111	20.063	19.979	19.877	19.843	19.48	19.076	19.037	18.915	18.816	18.75	18.73
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 500

Centreline Data
X = 2451.335
Y = 6676.932
Z = 19.606

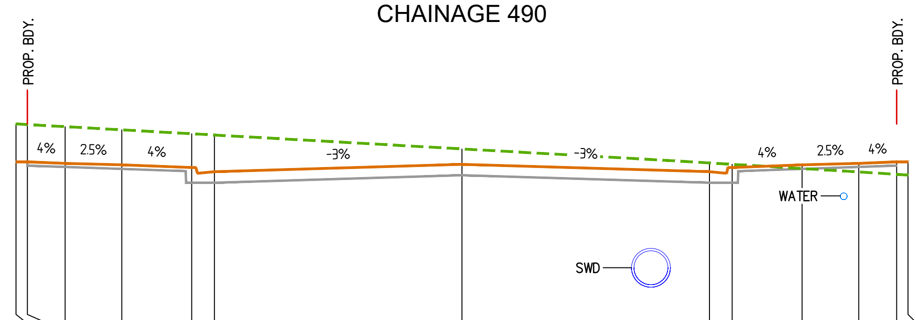


DATUM RL 15.500

DESIGN SURFACE	19.671	19.671	19.631	19.593	19.519	19.409	19.606	19.409	19.519	19.593	19.631	19.671	19.671
EXISTING SURFACE	20.402	20.385	20.33	20.247	20.144	20.111	19.747	19.384	19.351	19.233	19.134	19.068	19.048
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 490

Centreline Data
X = 2442.588
Y = 6672.086
Z = 19.669



DATUM RL 15.500

DESIGN SURFACE	19.734	19.734	19.694	19.657	19.583	19.473	19.669	19.473	19.583	19.657	19.694	19.734	19.734
EXISTING SURFACE	20.738	20.722	20.666	20.581	20.478	20.444	20.077	19.705	19.669	19.558	19.467	19.404	19.384
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 480

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 10 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

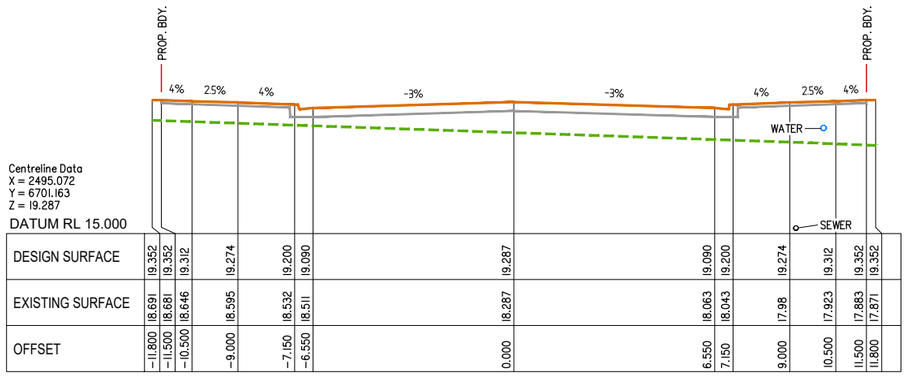
DRAWING TITLE
ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 10 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 459
Rev. No: C

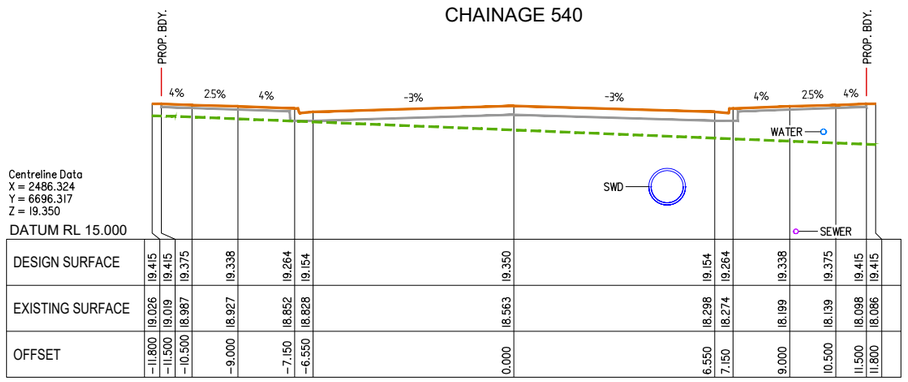


Centreline Data
X = 2495.072
Y = 6701.163
Z = 19.287

DATUM RL 15.000

DESIGN SURFACE	19.352	19.352	19.312	19.274	19.200	19.090	19.287	19.090	19.200	19.274	19.312	19.352	19.352
EXISTING SURFACE	18.691	18.681	18.646	18.595	18.532	18.511	18.287	18.063	18.043	17.98	17.923	17.883	17.871
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 540

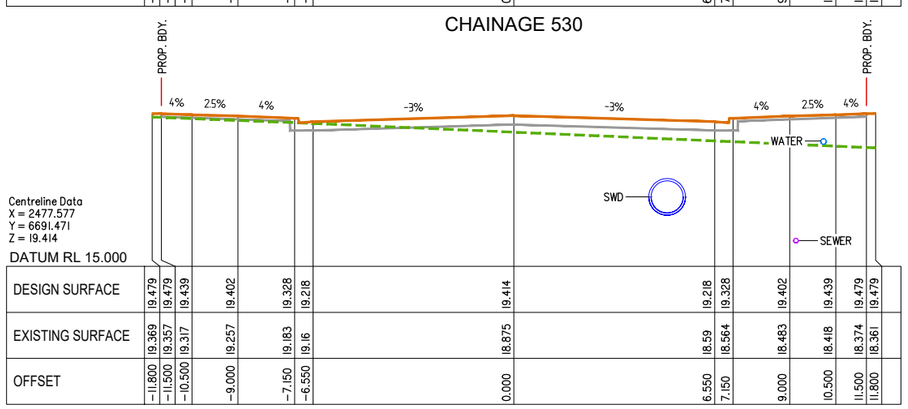


Centreline Data
X = 2486.324
Y = 6696.317
Z = 19.350

DATUM RL 15.000

DESIGN SURFACE	19.415	19.415	19.375	19.338	19.264	19.154	19.350	19.154	19.264	19.338	19.375	19.415	19.415
EXISTING SURFACE	19.026	19.019	18.987	18.927	18.852	18.828	18.563	18.298	18.274	18.199	18.139	18.098	18.086
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 530

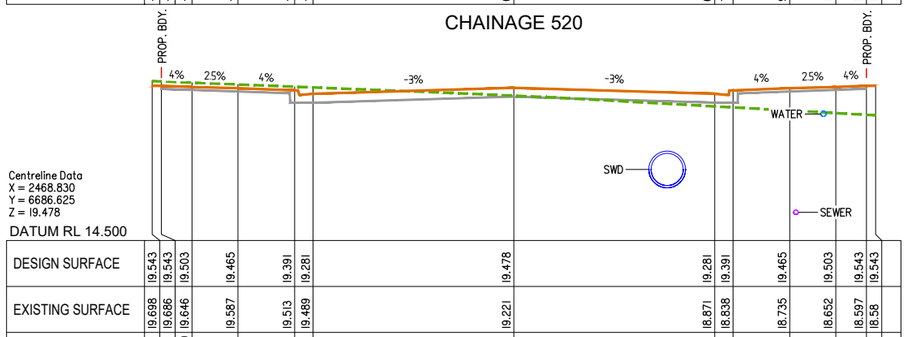


Centreline Data
X = 2477.577
Y = 6691.471
Z = 19.414

DATUM RL 15.000

DESIGN SURFACE	19.479	19.479	19.439	19.402	19.328	19.218	19.414	19.218	19.328	19.402	19.439	19.479	19.479
EXISTING SURFACE	19.369	19.357	19.317	19.257	19.183	19.16	18.875	18.59	18.564	18.483	18.418	18.374	18.361
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 520

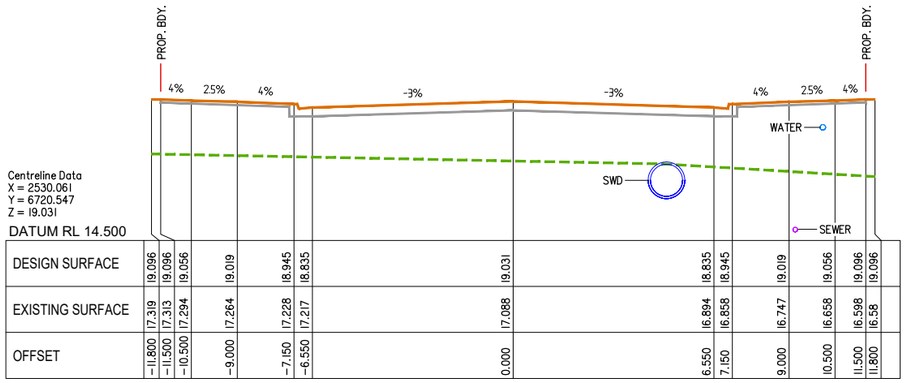


Centreline Data
X = 2468.830
Y = 6686.625
Z = 19.478

DATUM RL 14.500

DESIGN SURFACE	19.543	19.543	19.503	19.465	19.391	19.281	19.478	19.281	19.391	19.465	19.503	19.543	19.543
EXISTING SURFACE	19.698	19.686	19.646	19.587	19.513	19.489	19.221	18.871	18.838	18.735	18.652	18.597	18.58
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 510

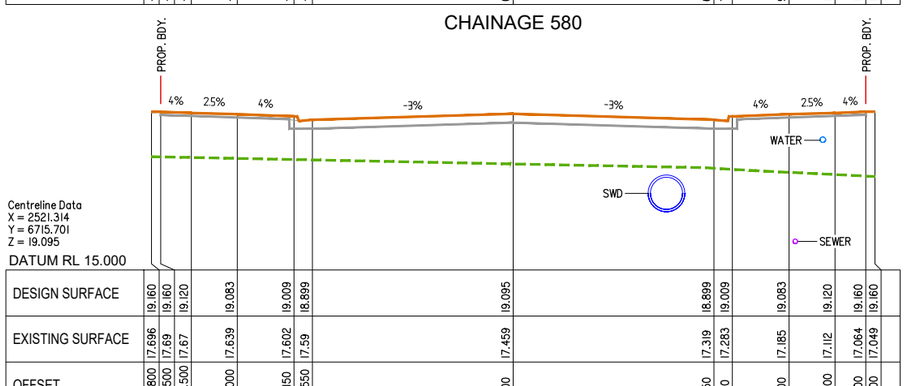


Centreline Data
X = 2530.061
Y = 6720.547
Z = 19.031

DATUM RL 14.500

DESIGN SURFACE	19.096	19.096	19.056	19.019	18.945	18.835	19.031	18.835	18.945	19.019	19.056	19.096	19.096
EXISTING SURFACE	17.319	17.313	17.294	17.264	17.228	17.217	17.088	16.894	16.858	16.747	16.658	16.598	16.58
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 580

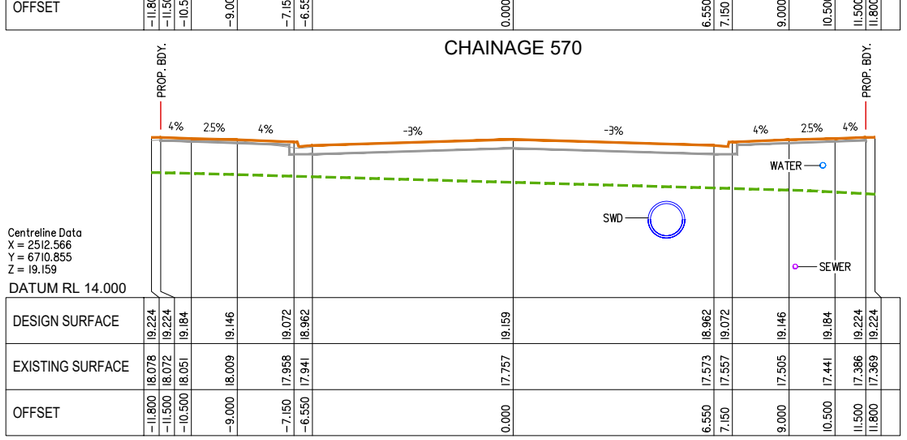


Centreline Data
X = 2521.314
Y = 6715.701
Z = 19.095

DATUM RL 15.000

DESIGN SURFACE	19.160	19.160	19.120	19.083	19.009	18.899	19.095	18.899	19.009	19.083	19.120	19.160	19.160
EXISTING SURFACE	17.696	17.69	17.67	17.639	17.602	17.59	17.459	17.319	17.283	17.185	17.112	17.064	17.049
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 570

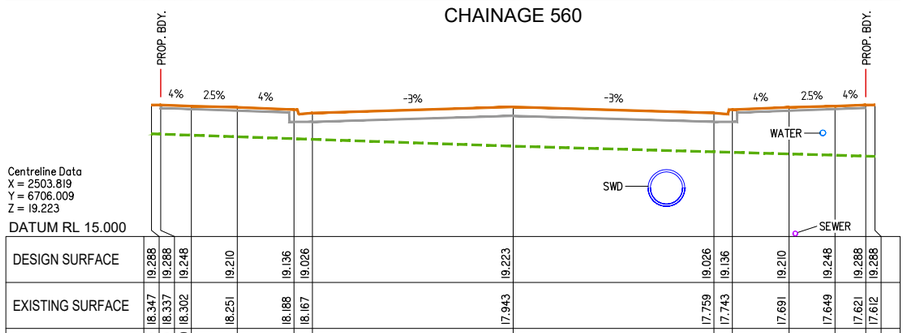


Centreline Data
X = 2512.566
Y = 6710.855
Z = 19.159

DATUM RL 14.000

DESIGN SURFACE	19.224	19.224	19.184	19.146	19.072	18.962	19.159	18.962	19.072	19.146	19.184	19.224	19.224
EXISTING SURFACE	18.078	18.072	18.051	18.009	17.958	17.941	17.757	17.573	17.557	17.505	17.441	17.386	17.369
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 560



Centreline Data
X = 2503.819
Y = 6706.009
Z = 19.223

DATUM RL 15.000

DESIGN SURFACE	19.288	19.288	19.248	19.210	19.136	19.026	19.223	19.026	19.136	19.210	19.248	19.288	19.288
EXISTING SURFACE	18.347	18.337	18.302	18.251	18.188	18.167	17.943	17.759	17.743	17.691	17.649	17.621	17.612
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 550

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 11 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 11 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

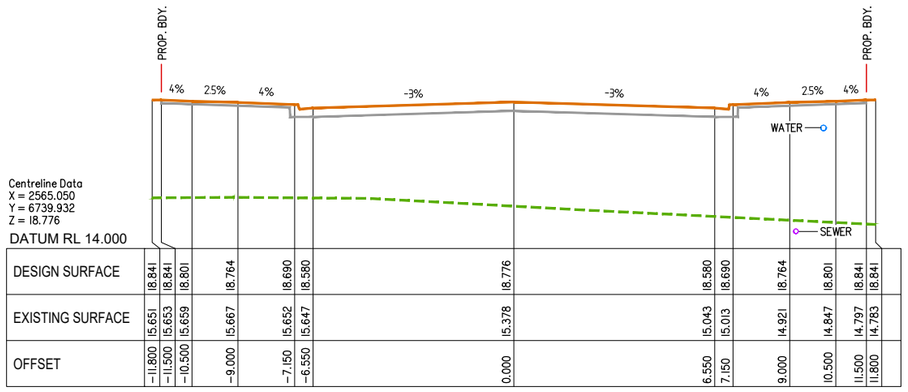
SCALE IN METRES

Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 460
Rev. No: C

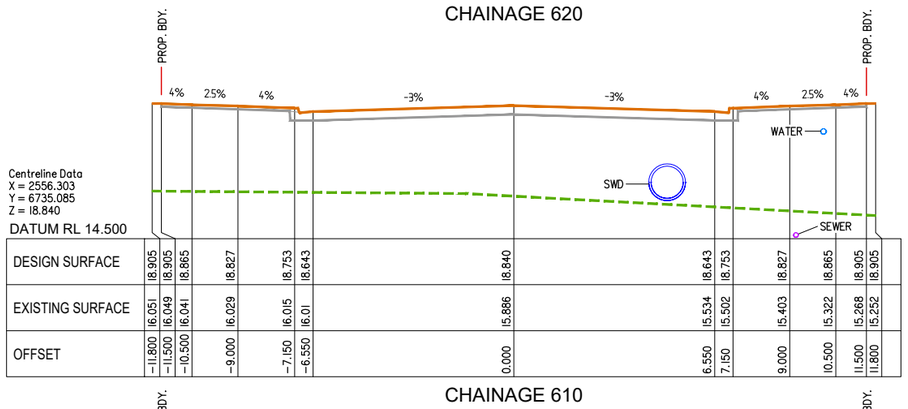


Centreline Data
X = 2565.050
Y = 6739.932
Z = 18.776

DATUM RL 14.000

DESIGN SURFACE	18.841	18.841	18.801	18.764	18.690	18.580	18.776	18.580	18.690	18.764	18.801	18.841	18.841
EXISTING SURFACE	15.651	15.653	15.659	15.667	15.652	15.647	15.378	15.043	15.013	14.921	14.847	14.797	14.783
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 620

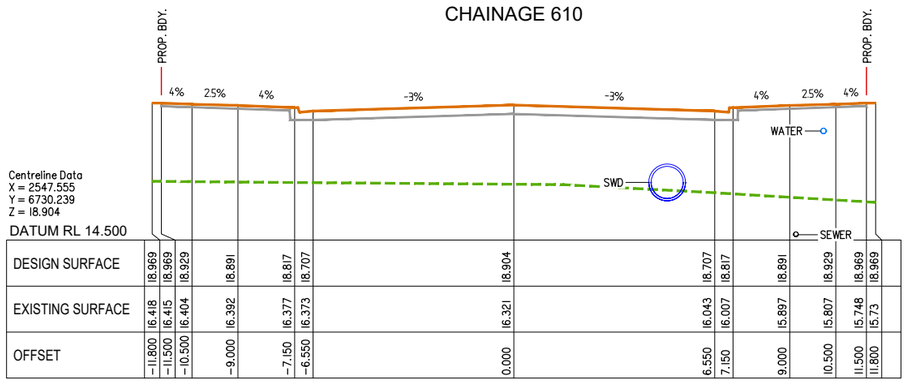


Centreline Data
X = 2556.303
Y = 6735.085
Z = 18.840

DATUM RL 14.500

DESIGN SURFACE	18.905	18.905	18.865	18.827	18.753	18.643	18.840	18.643	18.753	18.827	18.865	18.905	18.905
EXISTING SURFACE	16.051	16.049	16.041	16.029	16.015	16.01	15.886	15.534	15.502	15.403	15.322	15.268	15.252
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 610

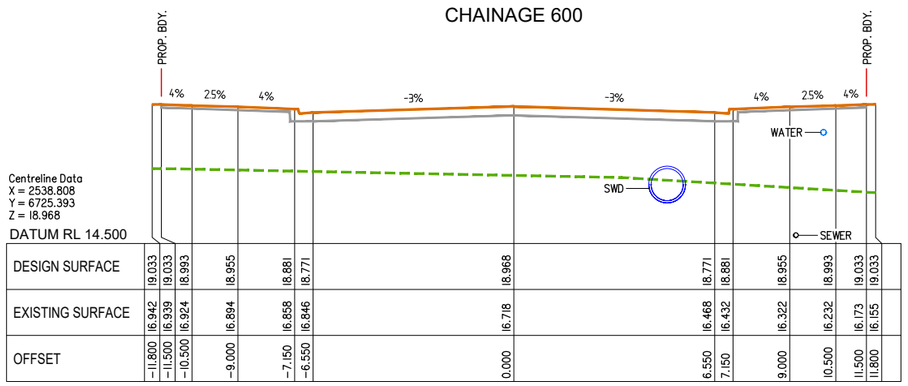


Centreline Data
X = 2547.555
Y = 6730.239
Z = 18.904

DATUM RL 14.500

DESIGN SURFACE	18.969	18.969	18.929	18.891	18.817	18.707	18.904	18.707	18.817	18.891	18.929	18.969	18.969
EXISTING SURFACE	16.418	16.415	16.404	16.392	16.377	16.373	16.321	16.043	16.007	15.897	15.807	15.748	15.73
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 600

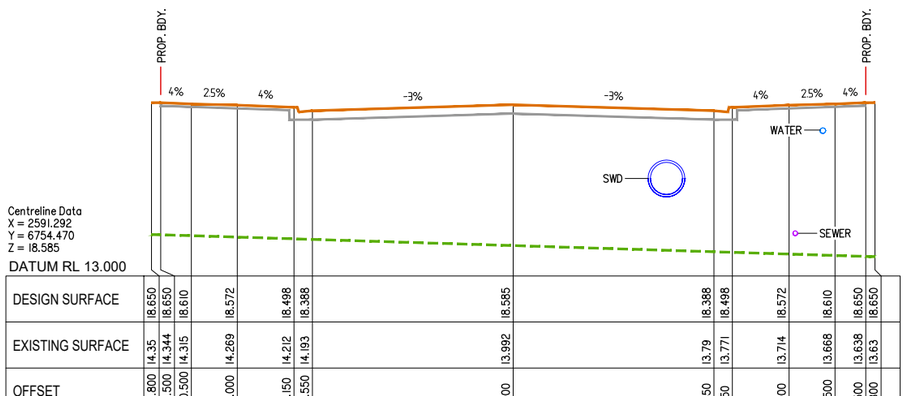


Centreline Data
X = 2538.808
Y = 6725.393
Z = 18.968

DATUM RL 14.500

DESIGN SURFACE	19.033	19.033	18.993	18.955	18.881	18.771	18.968	18.771	18.881	18.955	18.993	19.033	19.033
EXISTING SURFACE	16.942	16.939	16.924	16.894	16.858	16.846	16.718	16.468	16.432	16.322	16.232	16.173	16.155
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 590

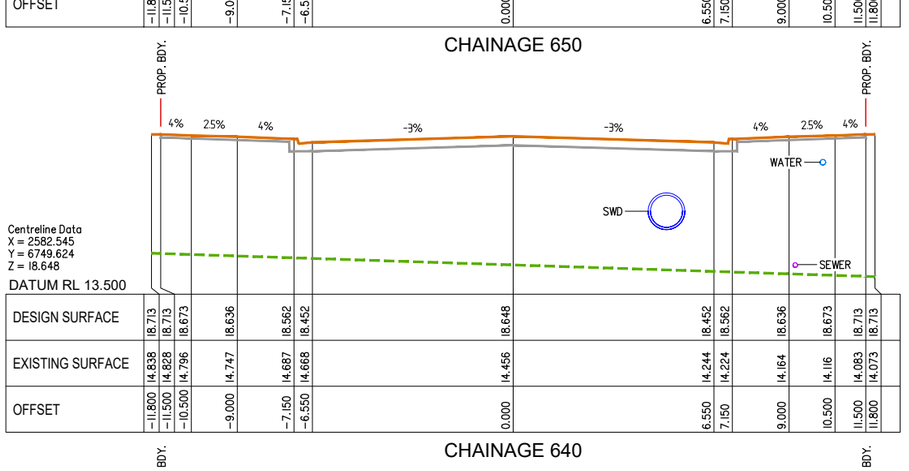


Centreline Data
X = 2591.292
Y = 6754.470
Z = 18.585

DATUM RL 13.000

DESIGN SURFACE	18.650	18.650	18.610	18.572	18.498	18.388	18.585	18.388	18.498	18.572	18.610	18.650	18.650
EXISTING SURFACE	14.35	14.344	14.315	14.269	14.212	14.193	13.992	13.79	13.771	13.714	13.668	13.638	13.63
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 650

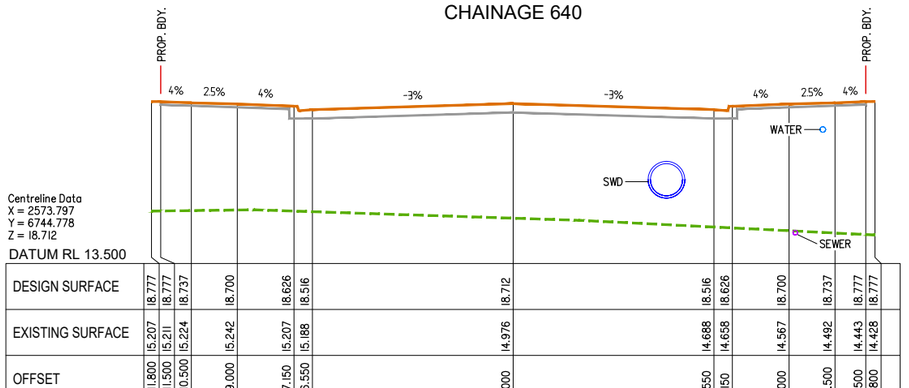


Centreline Data
X = 2582.545
Y = 6749.624
Z = 18.648

DATUM RL 13.500

DESIGN SURFACE	18.713	18.713	18.673	18.636	18.562	18.452	18.648	18.452	18.562	18.636	18.673	18.713	18.713
EXISTING SURFACE	14.838	14.828	14.796	14.747	14.687	14.668	14.456	14.244	14.224	14.164	14.116	14.083	14.073
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 640



Centreline Data
X = 2573.797
Y = 6744.778
Z = 18.712

DATUM RL 13.500

DESIGN SURFACE	18.777	18.777	18.737	18.700	18.626	18.516	18.712	18.516	18.626	18.700	18.737	18.777	18.777
EXISTING SURFACE	15.207	15.211	15.224	15.242	15.207	15.188	14.976	14.688	14.658	14.567	14.492	14.443	14.428
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 630

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 12 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esit 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 12 OF 14

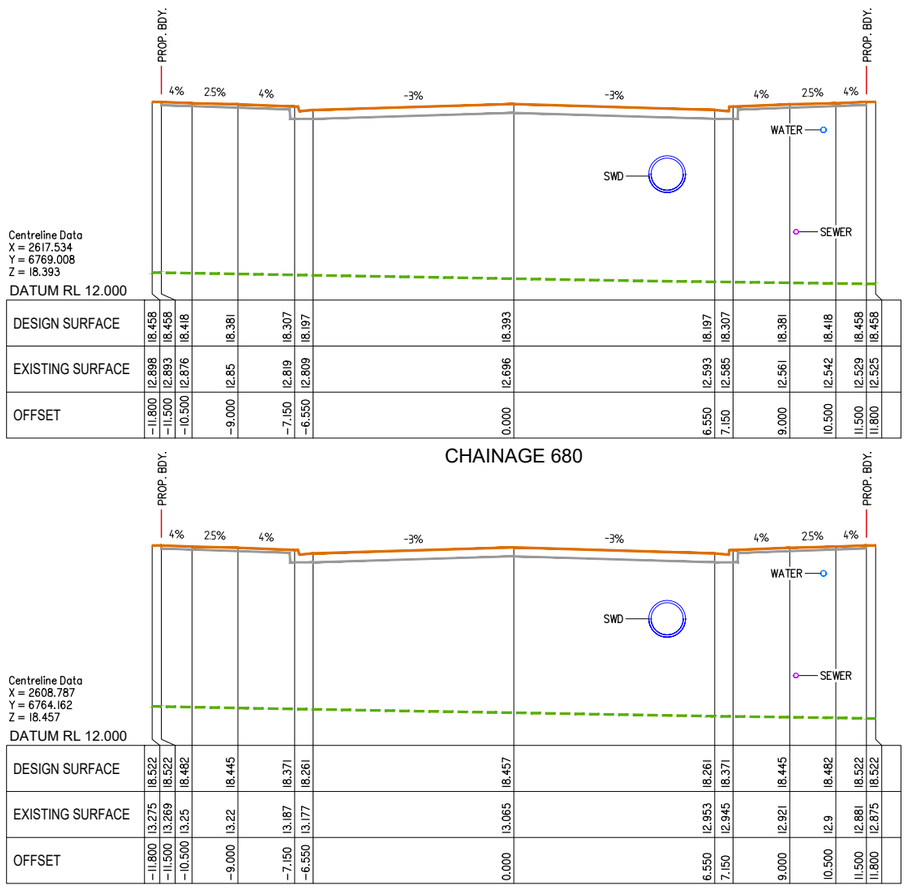
Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 461
Rev. No: C



Centreline Data
X = 2617.534
Y = 6769.008
Z = 18.393

DATUM RL 12.000

DESIGN SURFACE	18.458	18.458	18.418	18.381	18.307	18.197	18.393	18.197	18.307	18.381	18.418	18.458	18.458
EXISTING SURFACE	12.898	12.893	12.876	12.85	12.819	12.809	12.696	12.593	12.585	12.561	12.542	12.529	12.525
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

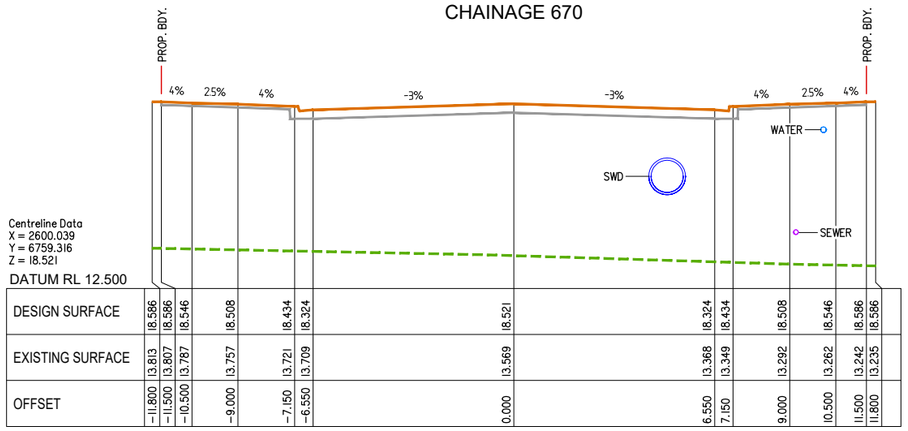
CHAINAGE 680

Centreline Data
X = 2608.787
Y = 6764.162
Z = 18.457

DATUM RL 12.000

DESIGN SURFACE	18.522	18.522	18.482	18.445	18.371	18.261	18.457	18.261	18.371	18.445	18.482	18.522	18.522
EXISTING SURFACE	13.275	13.269	13.25	13.22	13.187	13.177	13.065	12.953	12.945	12.921	12.9	12.881	12.875
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 670

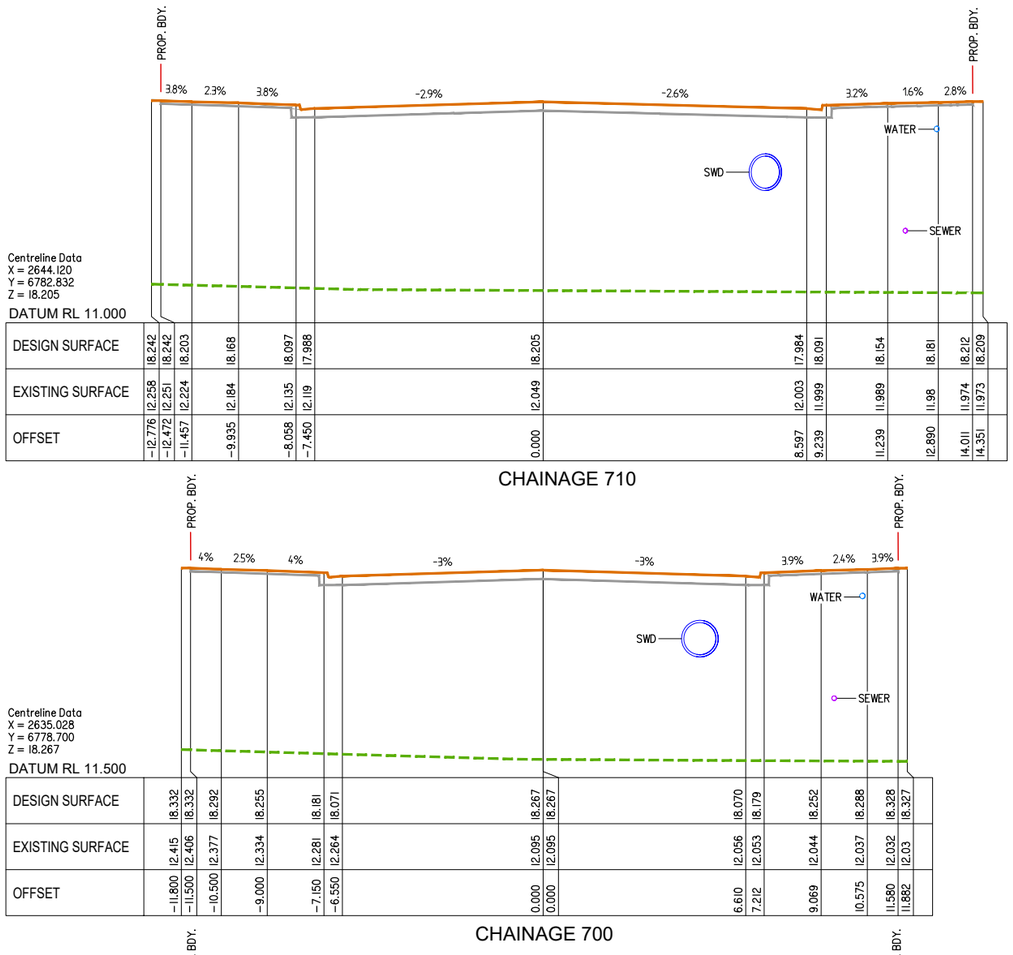


Centreline Data
X = 2600.039
Y = 6759.316
Z = 18.521

DATUM RL 12.500

DESIGN SURFACE	18.586	18.586	18.546	18.508	18.434	18.324	18.521	18.324	18.434	18.508	18.546	18.586	18.586
EXISTING SURFACE	13.813	13.807	13.787	13.757	13.721	13.709	13.569	13.368	13.349	13.292	13.262	13.242	13.235
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 660



Centreline Data
X = 2644.120
Y = 6782.832
Z = 18.205

DATUM RL 11.000

DESIGN SURFACE	18.242	18.242	18.203	18.168	18.097	17.988	18.205	17.984	18.091	18.154	18.181	18.212	18.209
EXISTING SURFACE	12.258	12.251	12.224	12.184	12.135	12.119	12.049	12.003	11.999	11.989	11.98	11.974	11.973
OFFSET	-12.776	-12.472	-11.457	-9.935	-8.058	-7.450	0.000	8.597	9.239	11.239	12.890	14.011	14.351

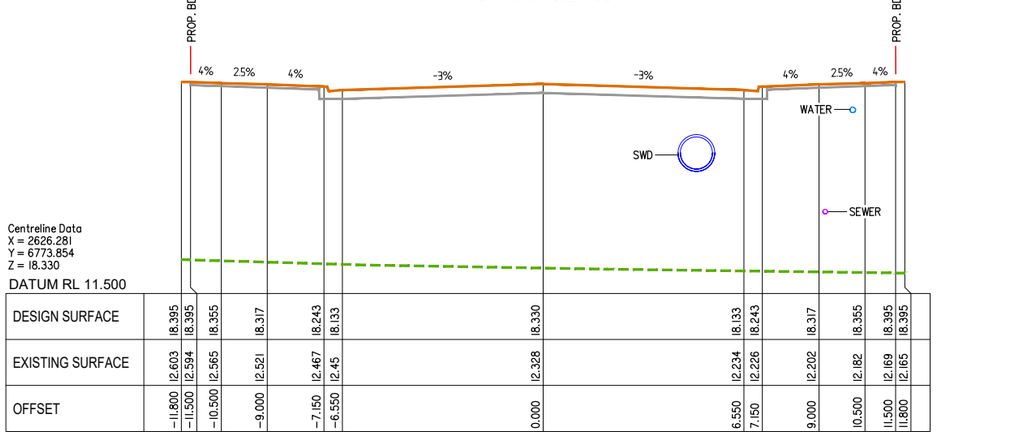
CHAINAGE 710

Centreline Data
X = 2635.028
Y = 6778.700
Z = 18.267

DATUM RL 11.500

DESIGN SURFACE	18.332	18.332	18.292	18.255	18.181	18.071	18.267	18.070	18.179	18.252	18.288	18.328	18.327
EXISTING SURFACE	12.415	12.406	12.377	12.334	12.281	12.264	12.095	12.056	12.053	12.044	12.037	12.032	12.03
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.610	7.212	9.069	10.575	11.580	11.882

CHAINAGE 700



Centreline Data
X = 2626.281
Y = 6773.854
Z = 18.330

DATUM RL 11.500

DESIGN SURFACE	18.395	18.395	18.355	18.317	18.243	18.133	18.330	18.133	18.243	18.317	18.355	18.395	18.395
EXISTING SURFACE	12.603	12.594	12.565	12.521	12.467	12.45	12.328	12.234	12.226	12.202	12.182	12.169	12.165
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 690

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 13 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

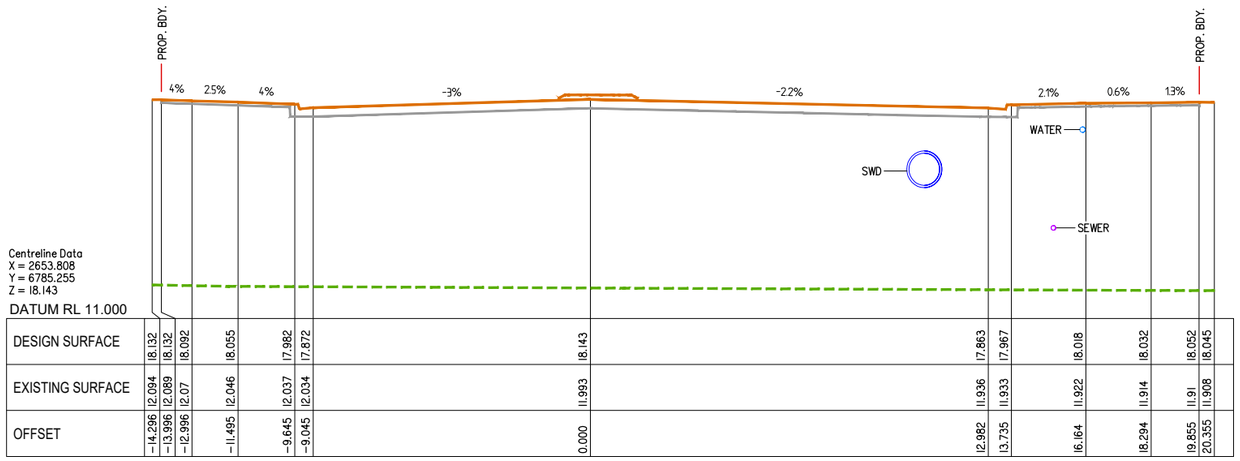
DRAWING TITLE
ROAD CROSS SECTIONS - HOMESTEAD DRIVE SHEET 13 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 462
Rev. No: C



DESIGN SURFACE	18.132	18.132	18.092	18.055	17.982	17.872	18.143	17.863	17.967	18.018	18.032	18.052	18.045
EXISTING SURFACE	12.094	12.089	12.07	12.046	12.037	12.034	11.993	11.936	11.933	11.922	11.914	11.91	11.908
OFFSET	-14.296	-13.996	-12.996	-11.495	-9.645	-9.045	0.000	12.982	13.735	16.164	18.294	19.855	20.355

CHAINAGE 720

ROAD CROSS SECTIONS – HOMESTEAD DRIVE SHEET 14 OF 14

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
(AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA
STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS
- HOMESTEAD DRIVE
SHEET 14 OF 14

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

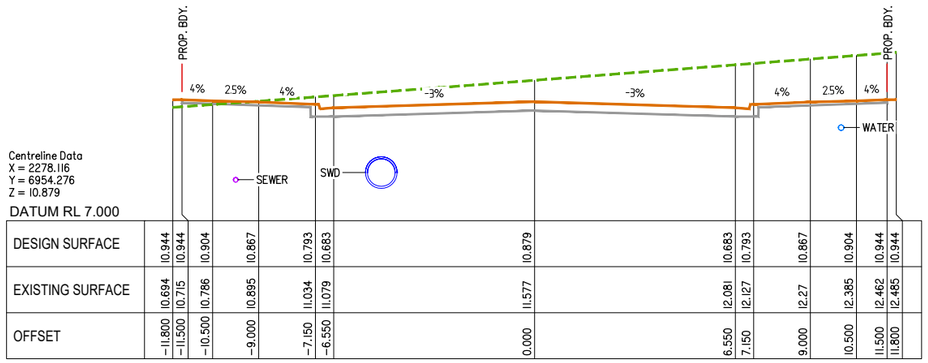
Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

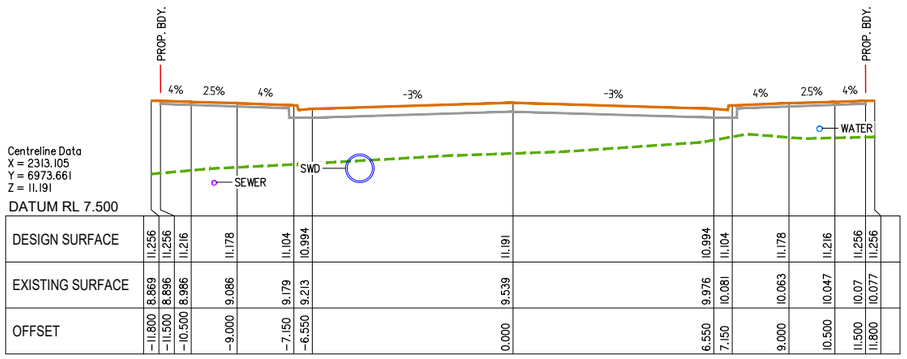
Drawing No: 5941 ENG OPW1 463

Rev. No: C



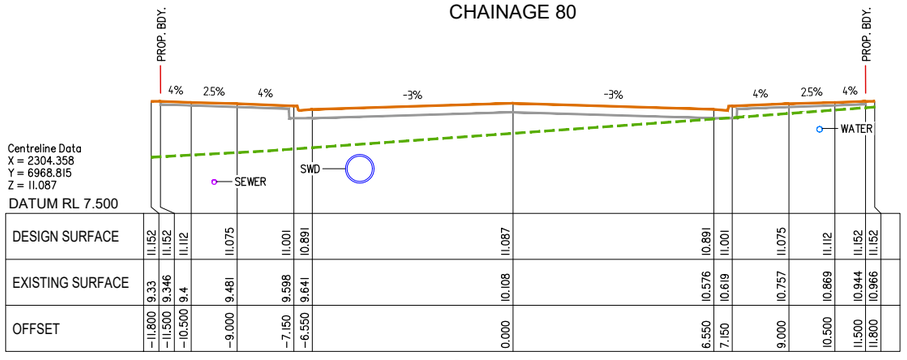
DESIGN SURFACE	10.944	10.944	10.904	10.867	10.793	10.683	10.879	10.683	10.793	10.867	10.904	10.944	10.944
EXISTING SURFACE	10.694	10.715	10.786	10.895	11.034	11.079	11.577	12.081	12.127	12.27	12.385	12.462	12.485
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 40



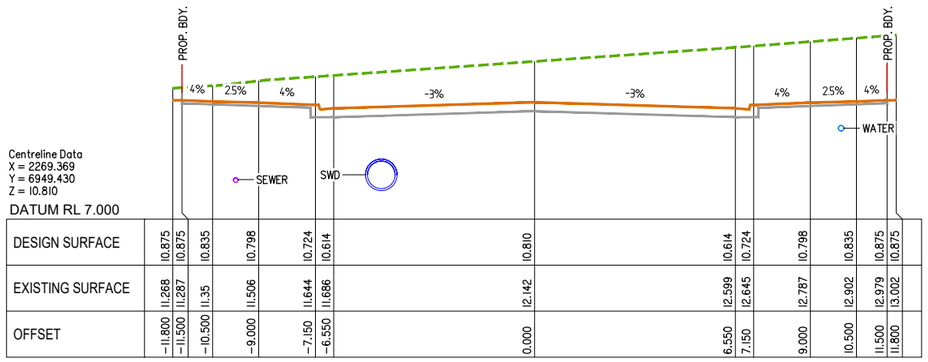
DESIGN SURFACE	11.256	11.256	11.216	11.178	11.104	10.994	11.191	10.994	11.104	11.178	11.216	11.256	11.256
EXISTING SURFACE	8.869	8.896	8.986	9.086	9.179	9.213	9.539	9.976	10.081	10.063	10.047	10.07	10.077
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 80



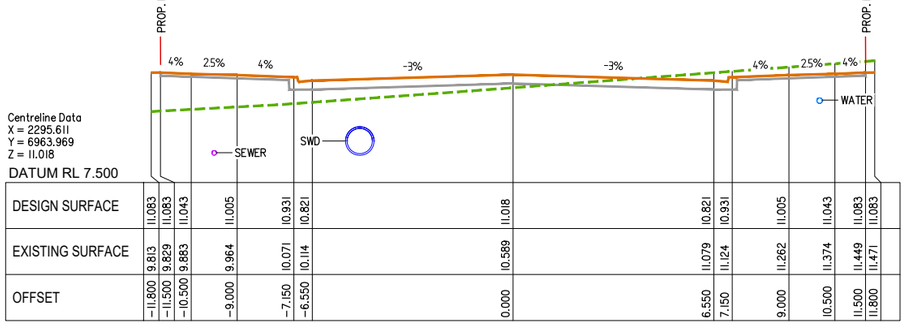
DESIGN SURFACE	11.152	11.152	11.112	11.075	11.001	10.891	11.087	10.891	11.001	11.075	11.112	11.152	11.152
EXISTING SURFACE	9.33	9.346	9.4	9.481	9.598	9.641	10.108	10.576	10.619	10.757	10.869	10.944	10.966
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 70



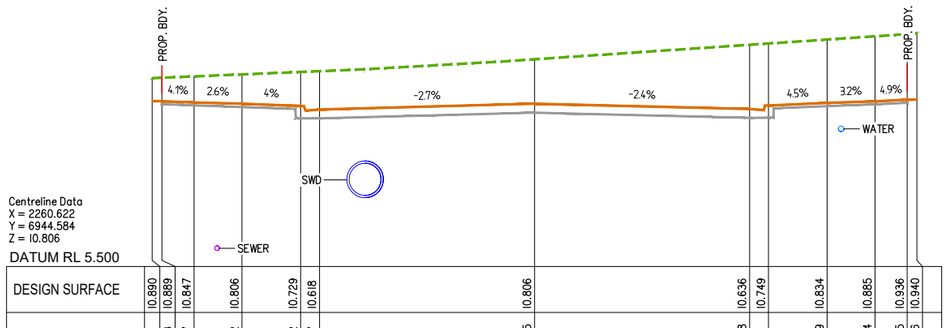
DESIGN SURFACE	10.875	10.875	10.835	10.798	10.724	10.614	10.810	10.614	10.724	10.798	10.835	10.875	10.875
EXISTING SURFACE	11.268	11.287	11.35	11.506	11.644	11.686	12.142	12.599	12.645	12.787	12.902	12.979	13.002
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 30



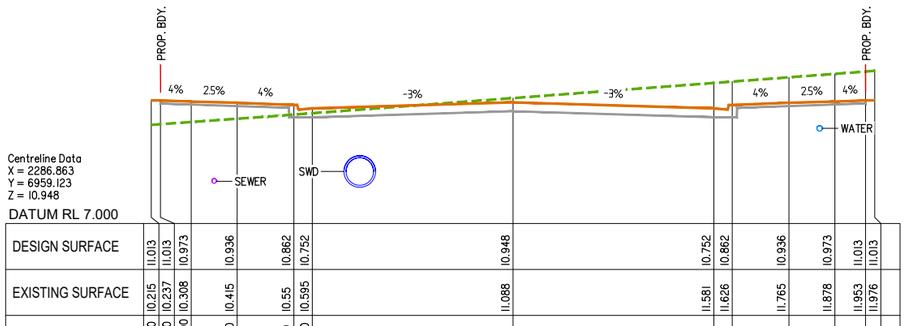
DESIGN SURFACE	11.083	11.083	11.043	11.005	10.931	10.821	11.018	10.821	10.931	11.005	11.043	11.083	11.083
EXISTING SURFACE	9.813	9.829	9.883	9.964	10.071	10.114	10.589	11.079	11.124	11.262	11.374	11.449	11.471
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 60



DESIGN SURFACE	10.890	10.889	10.847	10.806	10.729	10.618	10.806	10.636	10.749	10.834	10.885	10.936	10.940
EXISTING SURFACE	11.64	11.653	11.697	11.762	11.842	11.867	12.255	12.728	12.77	12.899	13.004	13.075	13.096
OFFSET	-12.474	-12.157	-11.106	-9.543	-7.631	-7.014	0.000	7.015	7.632	9.543	11.106	12.158	12.475

CHAINAGE 20



DESIGN SURFACE	11.013	11.013	10.973	10.936	10.862	10.752	10.948	10.752	10.862	10.936	10.973	11.013	11.013
EXISTING SURFACE	10.215	10.237	10.308	10.415	10.55	10.595	11.088	11.581	11.626	11.765	11.878	11.953	11.976
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 50

ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 1 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 1 OF 8

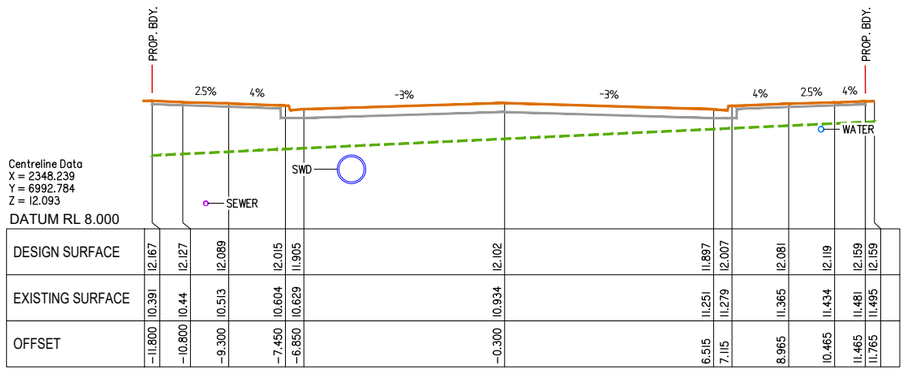
Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 464
Rev. No: B

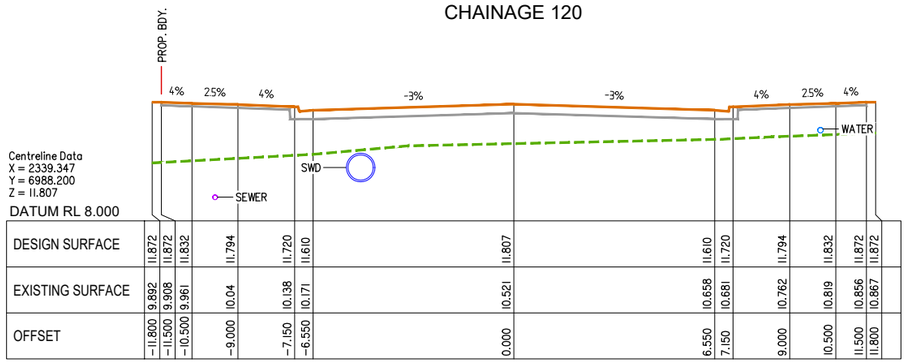


Centreline Data
X = 2348.239
Y = 6992.784
Z = 12.093

DATUM RL 8.000

DESIGN SURFACE	12.167	12.127	12.089	12.015	11.905	12.102	11.897	12.007	12.081	12.119	12.159	12.159
EXISTING SURFACE	10.391	10.44	10.513	10.604	10.629	10.934	11.251	11.279	11.365	11.434	11.481	11.495
OFFSET	-11.800	-10.800	-9.300	-7.450	-6.850	-0.300	6.515	7.115	8.965	10.465	11.465	11.765

CHAINAGE 120

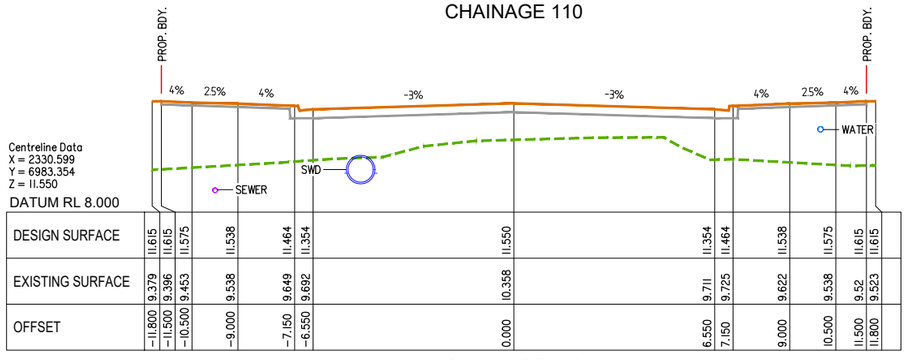


Centreline Data
X = 2339.347
Y = 6988.200
Z = 11.807

DATUM RL 8.000

DESIGN SURFACE	11.872	11.872	11.832	11.794	11.720	11.610	11.807	11.610	11.720	11.794	11.832	11.872	11.872
EXISTING SURFACE	9.892	9.908	9.961	10.04	10.138	10.171	10.521	10.658	10.681	10.762	10.819	10.856	10.867
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 110

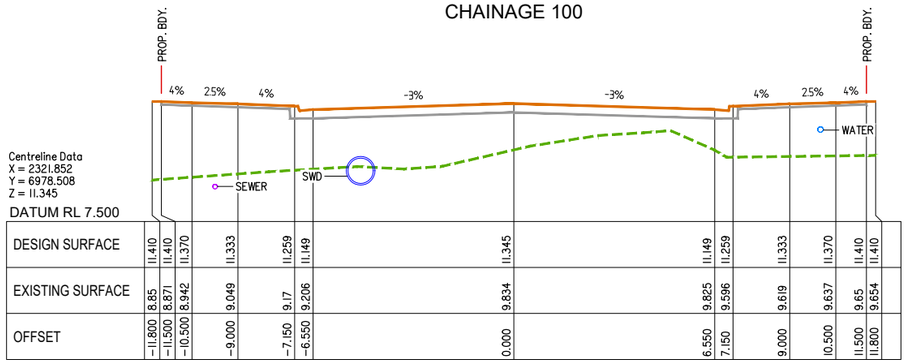


Centreline Data
X = 2330.599
Y = 6983.354
Z = 11.550

DATUM RL 8.000

DESIGN SURFACE	11.615	11.615	11.575	11.538	11.464	11.354	11.550	11.354	11.464	11.538	11.575	11.615	11.615
EXISTING SURFACE	9.379	9.396	9.453	9.538	9.649	9.692	10.358	9.711	9.725	9.622	9.538	9.52	9.523
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 100

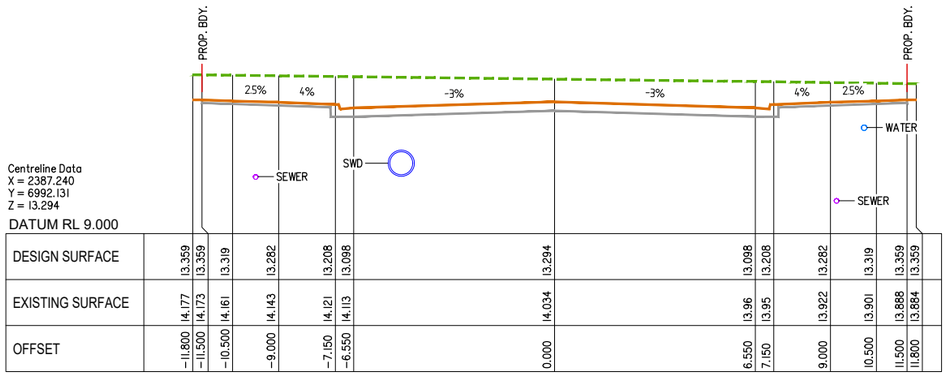


Centreline Data
X = 2321.852
Y = 6978.508
Z = 11.345

DATUM RL 7.500

DESIGN SURFACE	11.410	11.410	11.370	11.333	11.259	11.149	11.345	11.149	11.259	11.333	11.370	11.410	11.410
EXISTING SURFACE	8.85	8.871	8.942	9.049	9.17	9.206	9.834	9.825	9.596	9.619	9.637	9.65	9.654
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 90

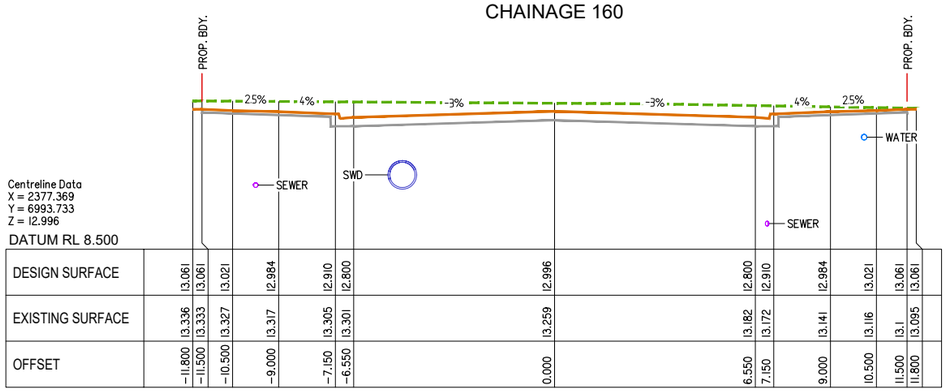


Centreline Data
X = 2387.240
Y = 6992.131
Z = 13.294

DATUM RL 9.000

DESIGN SURFACE	13.359	13.359	13.319	13.282	13.208	13.098	13.294	13.098	13.208	13.282	13.319	13.359	13.359
EXISTING SURFACE	14.177	14.173	14.161	14.143	14.121	14.113	14.034	13.96	13.95	13.922	13.901	13.888	13.884
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 160

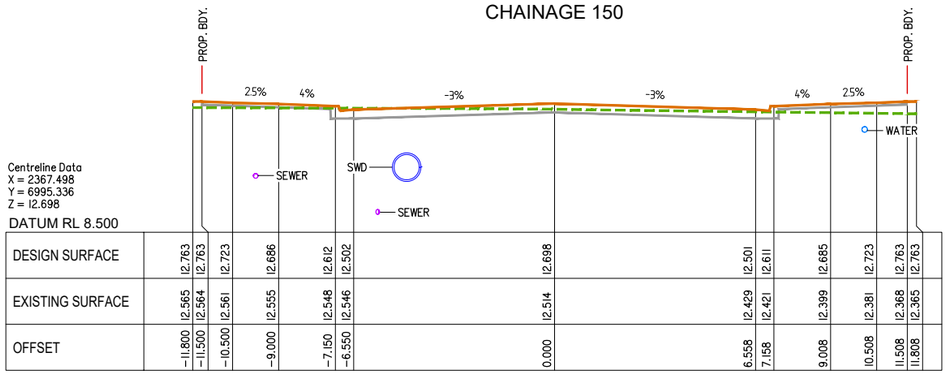


Centreline Data
X = 2377.369
Y = 6993.733
Z = 12.996

DATUM RL 8.500

DESIGN SURFACE	13.061	13.061	13.021	12.984	12.910	12.800	12.996	12.800	12.910	12.984	13.021	13.061	13.061
EXISTING SURFACE	13.336	13.333	13.327	13.317	13.305	13.301	13.259	13.182	13.172	13.141	13.116	13.1	13.095
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 150

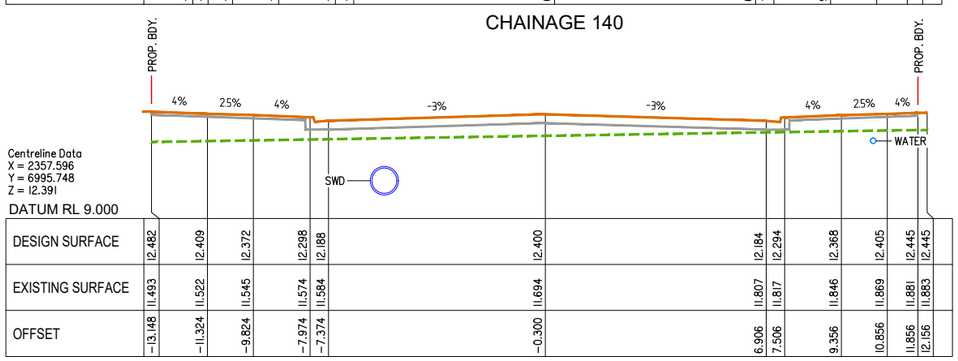


Centreline Data
X = 2367.498
Y = 6995.336
Z = 12.698

DATUM RL 8.500

DESIGN SURFACE	12.763	12.763	12.723	12.686	12.612	12.502	12.698	12.501	12.611	12.685	12.723	12.763	12.763
EXISTING SURFACE	12.565	12.564	12.561	12.555	12.548	12.546	12.514	12.429	12.421	12.399	12.381	12.368	12.365
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.558	7.158	9.008	10.508	11.508	11.808

CHAINAGE 140



Centreline Data
X = 2357.596
Y = 6995.748
Z = 12.391

DATUM RL 9.000

DESIGN SURFACE	12.482	12.409	12.372	12.298	12.188	12.400	12.184	12.294	12.368	12.405	12.445	12.445	
EXISTING SURFACE	11.493	11.522	11.545	11.574	11.584	11.694	11.807	11.817	11.846	11.869	11.881	11.883	
OFFSET	-13.148	-11.324	-9.824	-7.974	-7.374	-0.300	6.906	7.506	9.356	10.856	11.856	12.156	

CHAINAGE 130

ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 2 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esit 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 2 OF 8

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

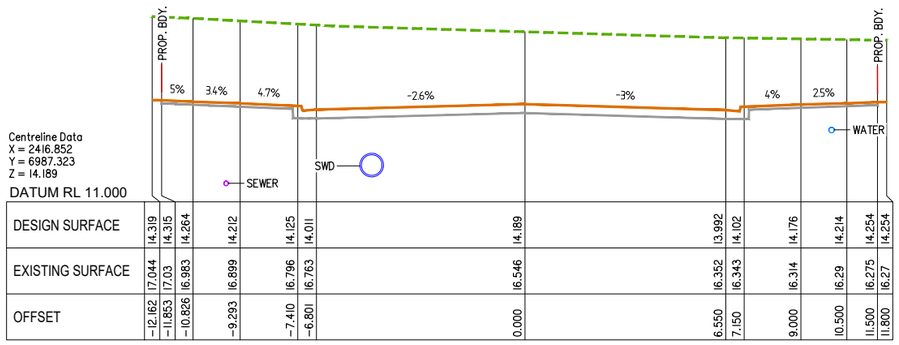
SCALE IN METRES

Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 465
Rev. No: B

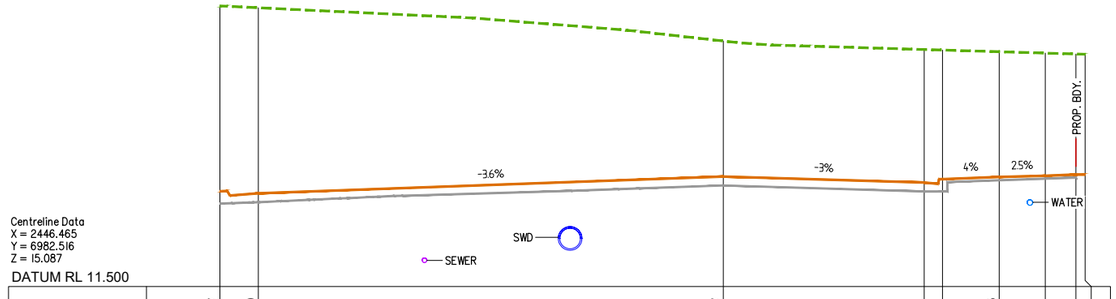


Centreline Data
X = 2416.852
Y = 6987.323
Z = 14.189

DATUM RL 11.000

DESIGN SURFACE	14.319	14.315	14.264	14.212		14.125	14.011		14.189			13.992	14.102		14.176		14.214	14.254	14.254					
EXISTING SURFACE	17.044	17.03	16.983	16.899		16.796	16.763		16.546			16.352	16.343		16.314		16.29	16.275	16.27					
OFFSET	-12.162	-11.853	-10.826	-9.293		-7.410	-6.801		0.000			6.550	7.150		9.000		10.500	11.500	11.800					

CHAINAGE 190

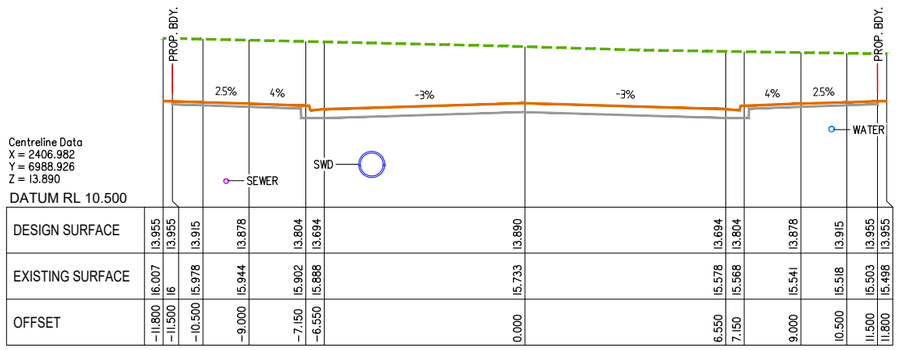


Centreline Data
X = 2446.465
Y = 6982.516
Z = 15.087

DATUM RL 11.500

DESIGN SURFACE	14.607	14.540										15.087					14.891	15.001	15.075	15.112	15.152	15.152		
EXISTING SURFACE	20.651	20.591										19.506					19.229	19.212	19.157	19.113	19.083	19.075		
OFFSET	-16.424	-15.170										0.000					6.550	7.150	9.000	10.500	11.500	11.800		

CHAINAGE 220

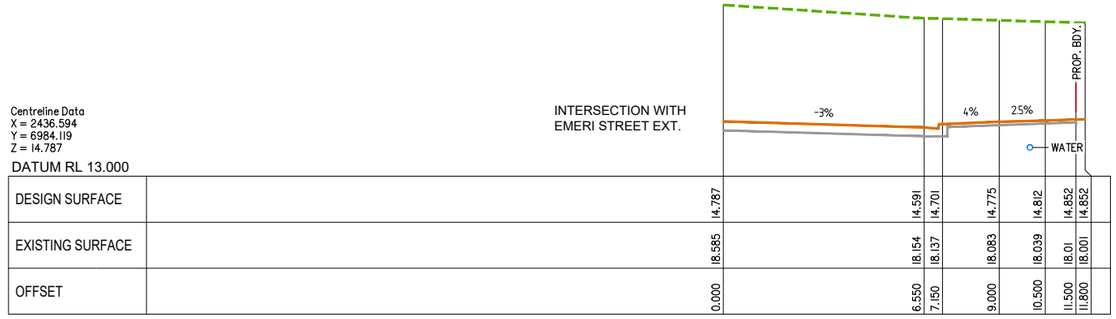


Centreline Data
X = 2406.982
Y = 6988.926
Z = 13.890

DATUM RL 10.500

DESIGN SURFACE	13.955	13.955	13.915	13.878		13.804	13.694		13.890			13.694	13.804		13.878		13.915	13.955	13.955					
EXISTING SURFACE	16.007	16	15.978	15.944		15.902	15.888		15.733			15.578	15.568		15.541		15.518	15.503	15.498					
OFFSET	-11.800	-11.500	-10.500	-9.000		-7.150	-6.550		0.000			6.550	7.150		9.000		10.500	11.500	11.800					

CHAINAGE 180

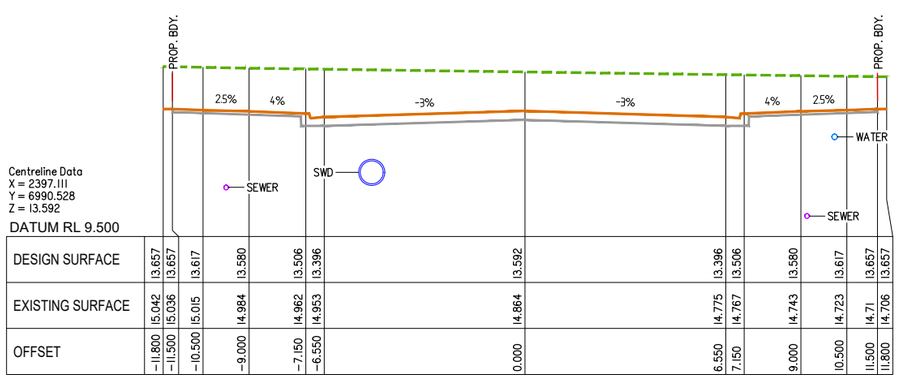


Centreline Data
X = 2436.594
Y = 6984.119
Z = 14.787

DATUM RL 13.000

DESIGN SURFACE												14.787					14.591	14.701	14.775	14.812	14.852	14.852		
EXISTING SURFACE												18.585					18.154	18.137	18.083	18.039	18.01	18.001		
OFFSET												0.000					6.550	7.150	9.000	10.500	11.500	11.800		

CHAINAGE 210

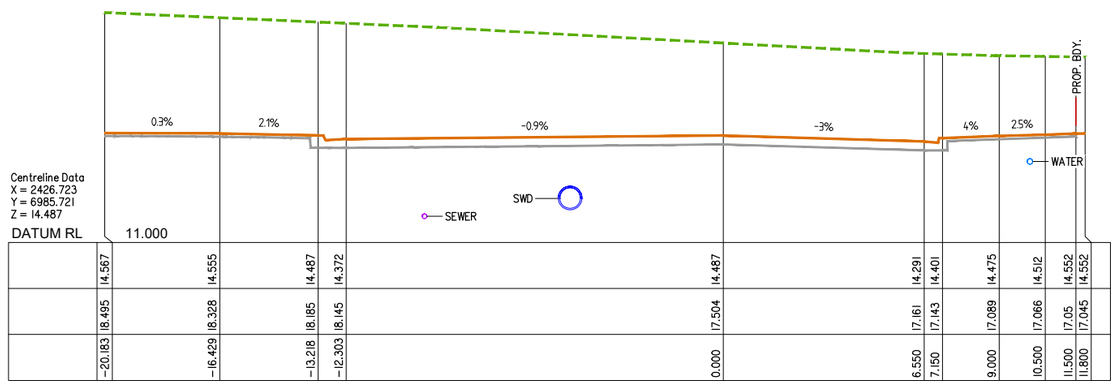


Centreline Data
X = 2397.111
Y = 6990.528
Z = 13.592

DATUM RL 9.500

DESIGN SURFACE	13.657	13.657	13.617	13.580		13.506	13.396		13.592			13.396	13.506		13.580		13.617	13.657	13.657					
EXISTING SURFACE	15.042	15.036	15.015	14.984		14.962	14.953		14.864			14.775	14.767		14.743		14.723	14.71	14.706					
OFFSET	-11.800	-11.500	-10.500	-9.000		-7.150	-6.550		0.000			6.550	7.150		9.000		10.500	11.500	11.800					

CHAINAGE 170



Centreline Data
X = 2426.723
Y = 6985.721
Z = 14.487

DATUM RL 11.000

	14.567	14.555		14.487		14.372						14.487					14.291	14.401	14.475	14.512	14.552	14.552		
	18.495	18.328		18.185		18.145						17.504					17.161	17.143	17.089	17.066	17.05	17.045		
	-20.183	-16.429		-13.218		-12.303						0.000					6.550	7.150	9.000	10.500	11.500	11.800		

CHAINAGE 200

ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 3 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esit 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 3 OF 8

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

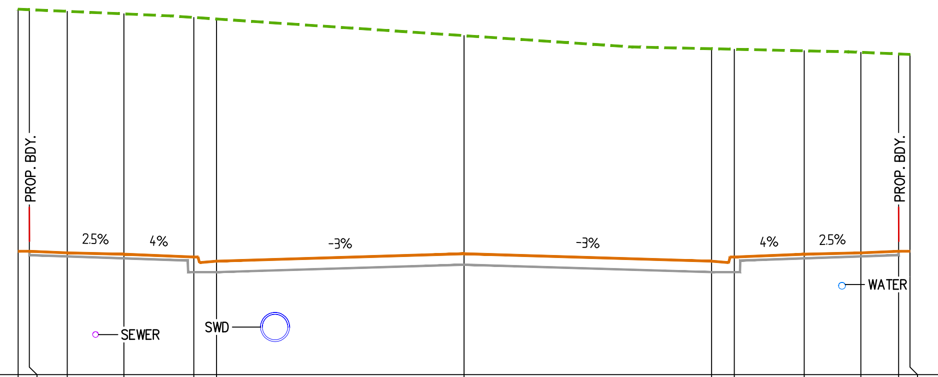
Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 466

Rev. No: B

Centreline Data
X = 2466.206
Y = 6979.311
Z = 15.700

DATUM RL 12.500

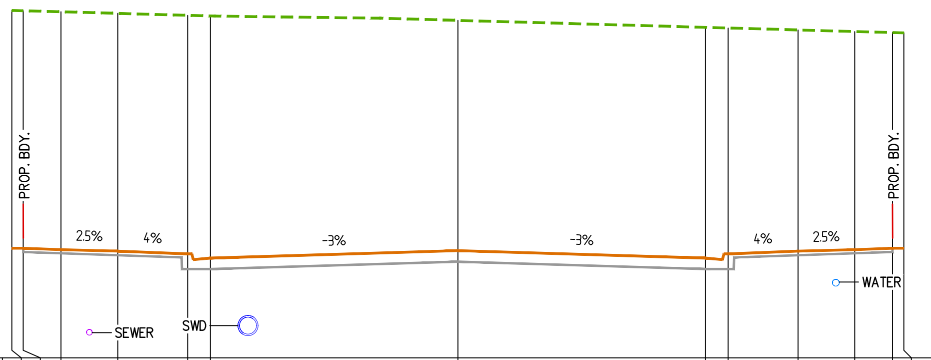


DESIGN SURFACE	15.765	15.765	15.725	15.687	15.613	15.503	15.700	15.503	15.613	15.687	15.725	15.765	15.765
EXISTING SURFACE	22.169	22.156	22.112	22.046	21.951	21.911	21.47	21.123	21.11	21.068	21.028	20.985	20.972
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 240

Centreline Data
X = 2485.948
Y = 6976.106
Z = 16.331

DATUM RL 13.500

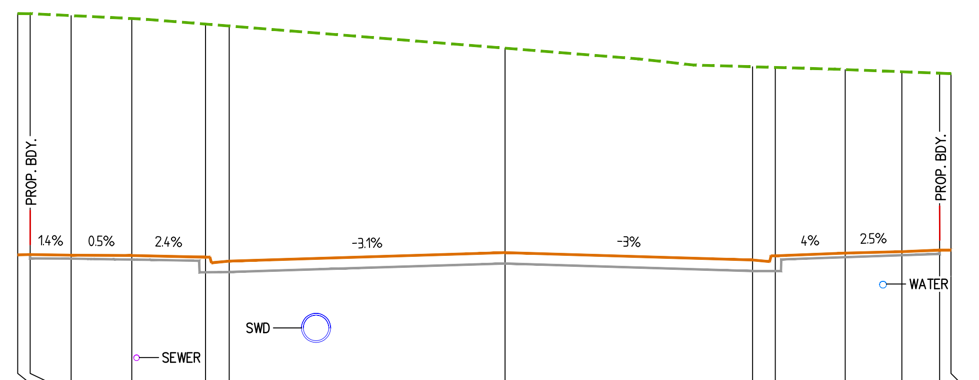


DESIGN SURFACE	16.396	16.396	16.356	16.318	16.244	16.134	16.331	16.134	16.244	16.318	16.356	16.396	16.396
EXISTING SURFACE	22.678	22.67	22.642	22.599	22.547	22.53	22.414	22.23	22.213	22.161	22.119	22.091	22.083
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 260

Centreline Data
X = 2456.335
Y = 6980.914
Z = 15.391

DATUM RL 12.000

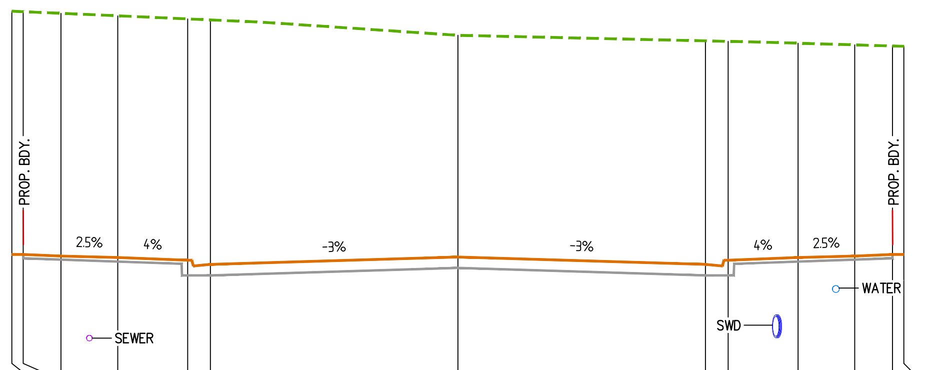


DESIGN SURFACE	15.330	15.338	15.323	15.315	15.269	15.167	15.391	15.194	15.304	15.378	15.416	15.456	15.456
EXISTING SURFACE	21.705	21.703	21.652	21.575	21.429	21.379	20.792	20.301	20.283	20.226	20.168	20.13	20.118
OFFSET	−12.895	−12.566	−11.480	−9.876	−7.925	−7.297	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 230

Centreline Data
X = 2476.077
Y = 6977.709
Z = 16.014

DATUM RL 13.000



DESIGN SURFACE	16.079	16.079	16.039	16.002	15.928	15.818	16.014	15.818	15.928	16.002	16.039	16.079	16.079
EXISTING SURFACE	22.517	22.504	22.46	22.394	22.313	22.287	21.879	21.732	21.719	21.67	21.626	21.596	21.588
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 250

ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 4 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 4 OF 8

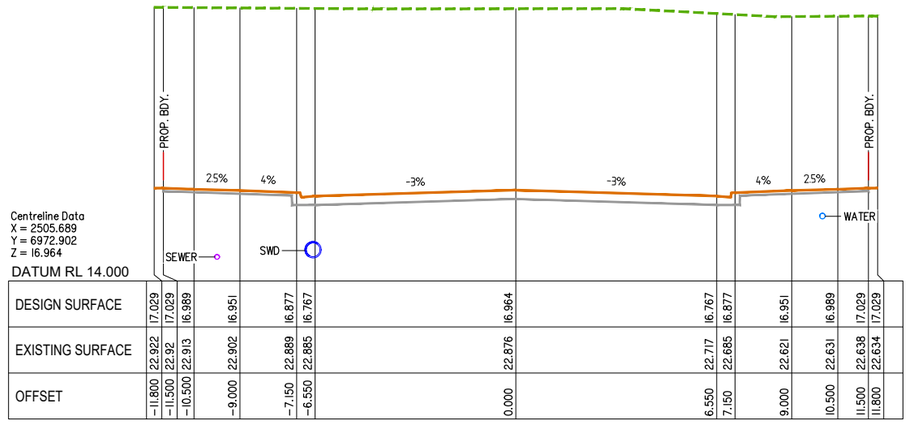
Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 467
Rev. No: B

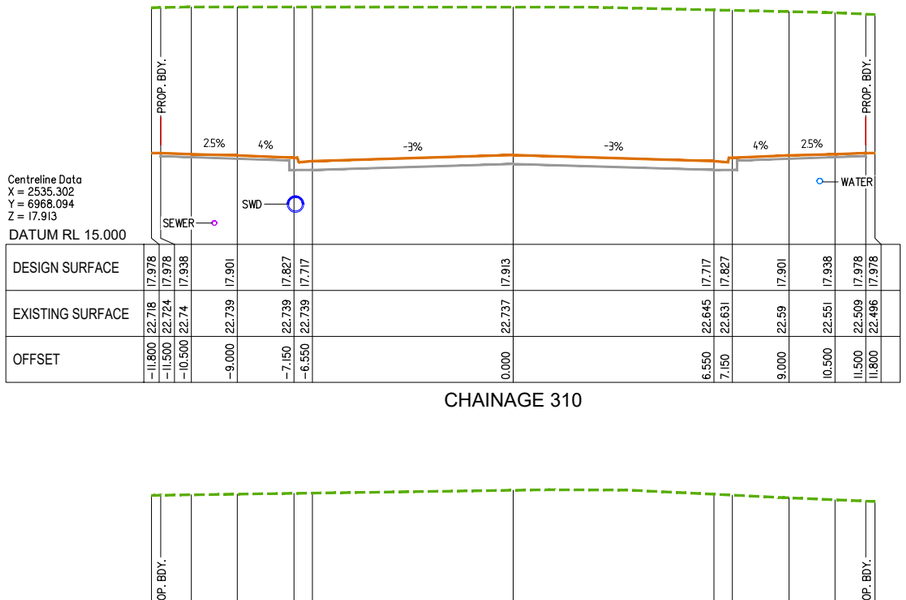


Centreline Data
X = 2505.689
Y = 6972.902
Z = 16.964

DATUM RL 14.000

DESIGN SURFACE	17.029	17.029	16.989	16.951	16.877	16.767	16.964	16.767	16.877	16.951	16.989	17.029	17.029
EXISTING SURFACE	22.922	22.92	22.913	22.902	22.889	22.885	22.876	22.717	22.685	22.621	22.631	22.638	22.634
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 280

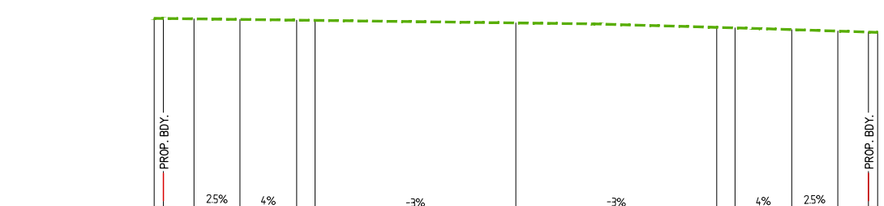


Centreline Data
X = 2535.302
Y = 6968.094
Z = 17.913

DATUM RL 15.000

DESIGN SURFACE	17.978	17.978	17.938	17.901	17.827	17.717	17.913	17.717	17.827	17.901	17.938	17.978	17.978
EXISTING SURFACE	22.718	22.724	22.74	22.739	22.739	22.739	22.737	22.645	22.631	22.59	22.551	22.509	22.496
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 310

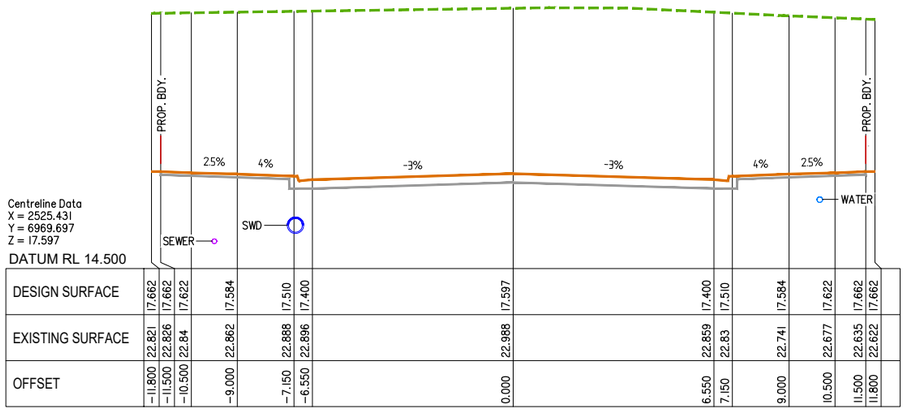


Centreline Data
X = 2495.819
Y = 6974.504
Z = 16.647

DATUM RL 13.500

DESIGN SURFACE	16.712	16.712	16.672	16.635	16.561	16.451	16.647	16.451	16.561	16.635	16.672	16.712	16.712
EXISTING SURFACE	22.927	22.923	22.911	22.892	22.868	22.861	22.777	22.633	22.616	22.559	22.511	22.478	22.468
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 270

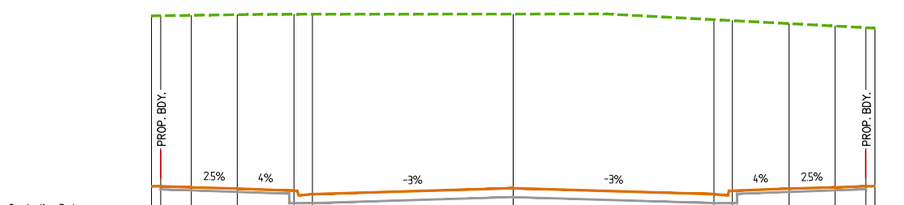


Centreline Data
X = 2525.431
Y = 6969.697
Z = 17.597

DATUM RL 14.500

DESIGN SURFACE	17.662	17.662	17.622	17.584	17.510	17.400	17.597	17.400	17.510	17.584	17.622	17.662	17.662
EXISTING SURFACE	22.821	22.826	22.84	22.862	22.888	22.896	22.988	22.859	22.83	22.741	22.677	22.635	22.622
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 300



Centreline Data
X = 2515.560
Y = 6971.299
Z = 17.280

DATUM RL 14.500

DESIGN SURFACE	17.345	17.345	17.305	17.268	17.194	17.084	17.280	17.084	17.194	17.268	17.305	17.345	17.345
EXISTING SURFACE	22.898	22.902	22.917	22.938	22.951	22.952	22.958	22.775	22.744	22.645	22.566	22.513	22.497
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 290

ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 5 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 5 OF 8

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

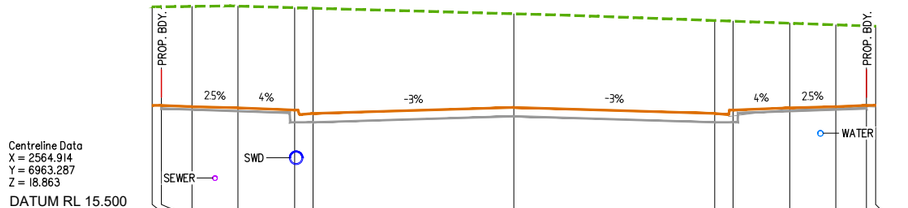
SCALE IN METRES

Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

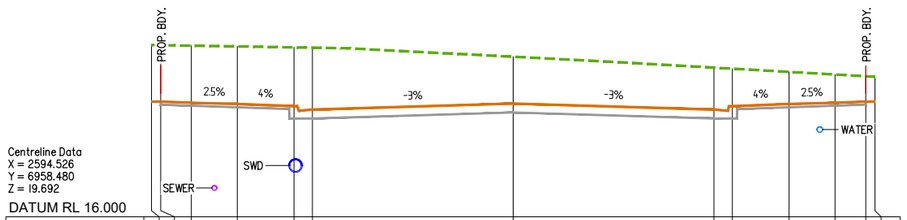
Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 468
Rev. No: B



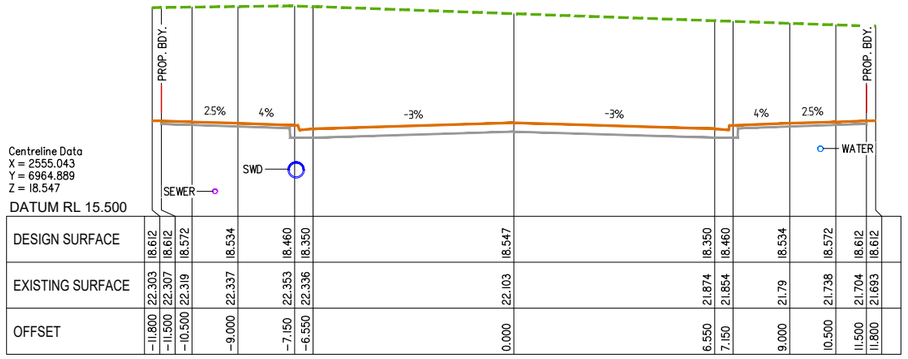
DESIGN SURFACE	18.928	18.928	18.888	18.851	18.777	18.667	18.863	18.667	18.777	18.851	18.888	18.928	18.928
EXISTING SURFACE	22.141	22.145	22.157	22.164	22.113	22.097	21.916	21.697	21.675	21.609	21.556	21.52	21.509
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 340



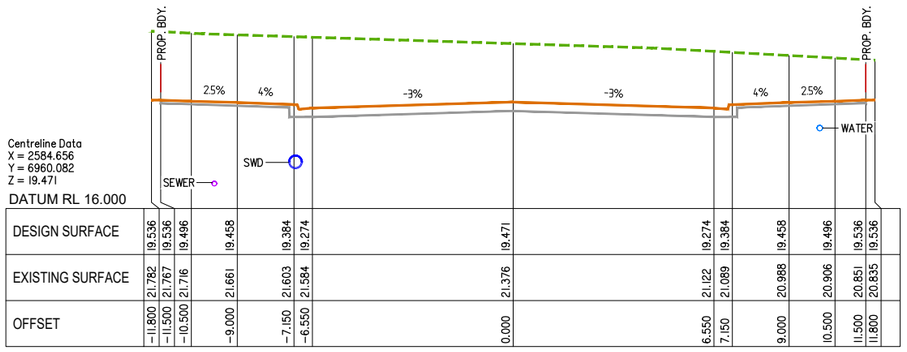
DESIGN SURFACE	19.757	19.757	19.717	19.680	19.606	19.496	19.692	19.496	19.606	19.680	19.717	19.757	19.757
EXISTING SURFACE	21.602	21.597	21.58	21.555	21.524	21.514	21.218	20.864	20.83	20.724	20.639	20.582	20.565
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 370



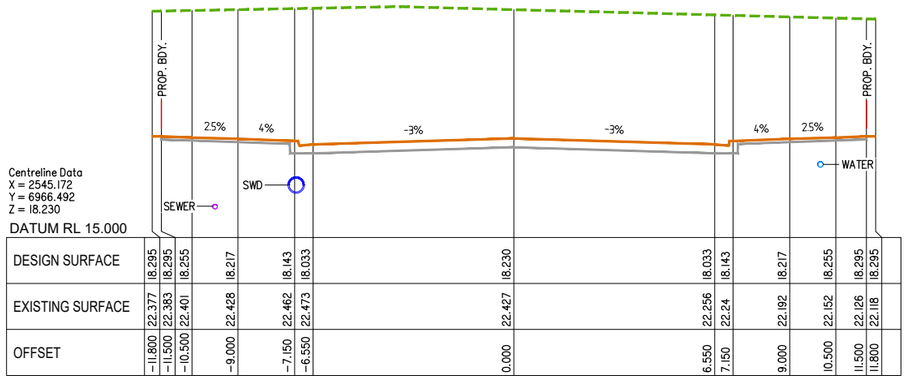
DESIGN SURFACE	18.612	18.612	18.572	18.534	18.460	18.350	18.547	18.350	18.460	18.534	18.572	18.612	18.612
EXISTING SURFACE	22.303	22.307	22.319	22.337	22.353	22.336	22.103	21.874	21.854	21.79	21.738	21.704	21.693
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 330



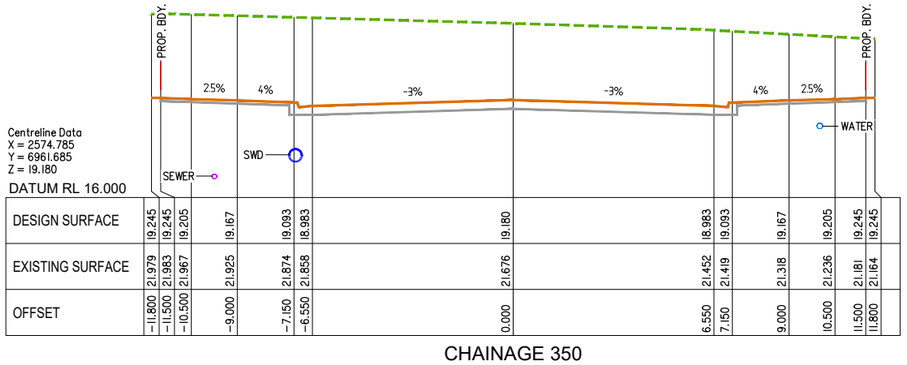
DESIGN SURFACE	19.536	19.536	19.496	19.458	19.384	19.274	19.471	19.274	19.384	19.458	19.496	19.536	19.536
EXISTING SURFACE	21.782	21.767	21.716	21.661	21.603	21.584	21.376	21.122	21.089	20.988	20.906	20.851	20.835
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 360



DESIGN SURFACE	18.295	18.295	18.255	18.217	18.143	18.033	18.230	18.033	18.143	18.217	18.255	18.295	18.295
EXISTING SURFACE	22.377	22.383	22.401	22.428	22.462	22.473	22.427	22.256	22.24	22.192	22.152	22.126	22.118
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 320



DESIGN SURFACE	19.245	19.245	19.205	19.167	19.093	18.983	19.180	18.983	19.093	19.167	19.205	19.245	19.245
EXISTING SURFACE	21.979	21.983	21.967	21.925	21.874	21.858	21.676	21.452	21.419	21.318	21.236	21.181	21.164
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 350

ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 6 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esit 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 6 OF 8

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

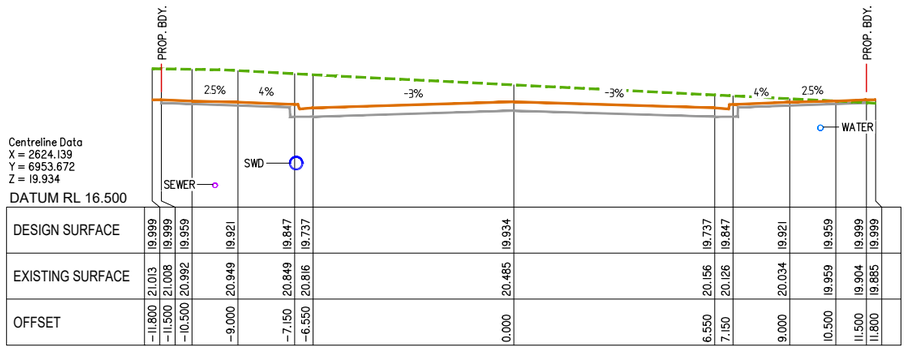
Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

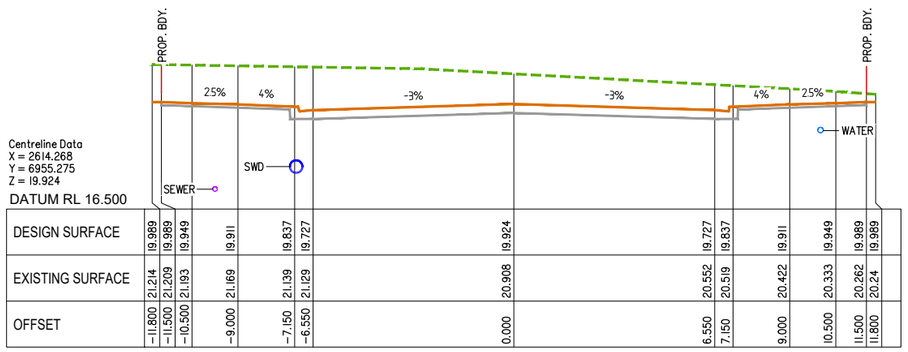
Drawing No: 5941 ENG OPW1 469

Rev. No: B



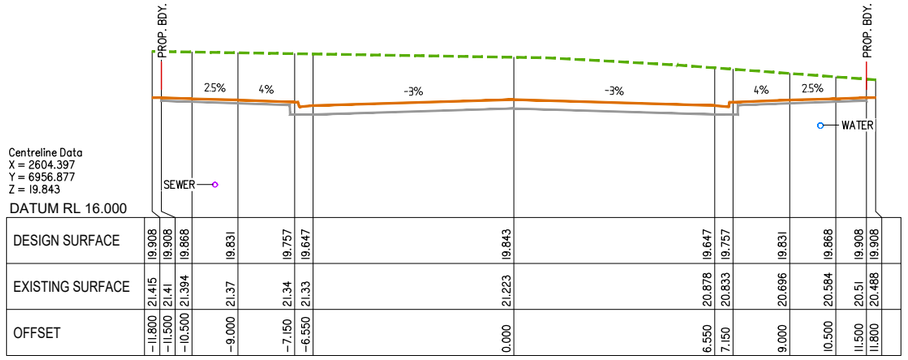
DESIGN SURFACE	19.999	19.999	19.959	19.921	19.847	19.737	19.934	19.737	19.847	19.921	19.959	19.999	19.999
EXISTING SURFACE	21.013	21.008	20.992	20.949	20.849	20.816	20.485	20.156	20.126	20.034	19.959	19.904	19.885
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 400



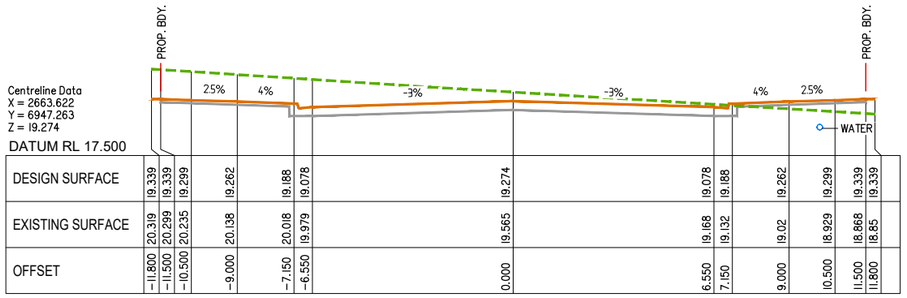
DESIGN SURFACE	19.989	19.989	19.949	19.911	19.837	19.727	19.924	19.727	19.837	19.911	19.949	19.989	19.989
EXISTING SURFACE	21.214	21.209	21.193	21.169	21.139	21.129	20.908	20.552	20.519	20.422	20.333	20.262	20.24
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 390



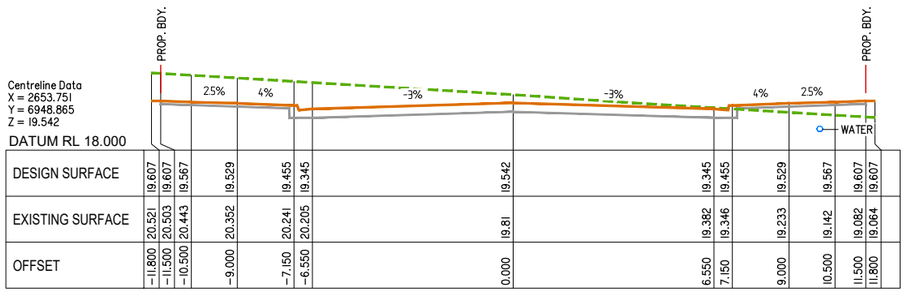
DESIGN SURFACE	19.908	19.908	19.868	19.831	19.757	19.647	19.843	19.647	19.757	19.831	19.868	19.908	19.908
EXISTING SURFACE	21.415	21.41	21.394	21.37	21.34	21.33	21.223	20.878	20.833	20.696	20.584	20.51	20.488
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 380



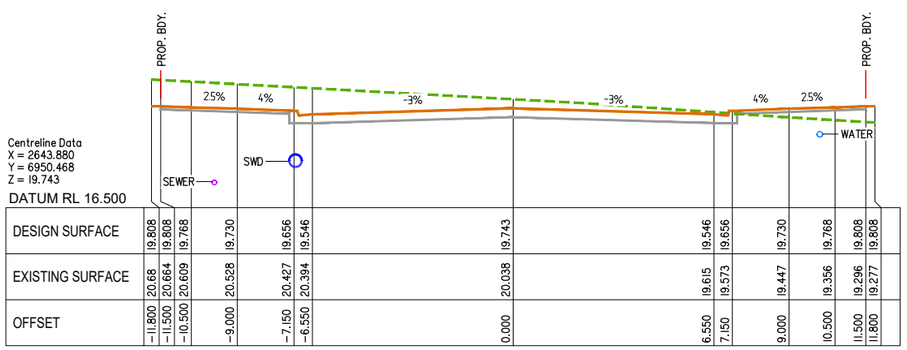
DESIGN SURFACE	19.339	19.339	19.299	19.262	19.188	19.078	19.274	19.078	19.188	19.262	19.299	19.339	19.339
EXISTING SURFACE	20.319	20.299	20.235	20.138	20.018	19.979	19.565	19.168	19.132	19.02	18.929	18.868	18.85
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 440



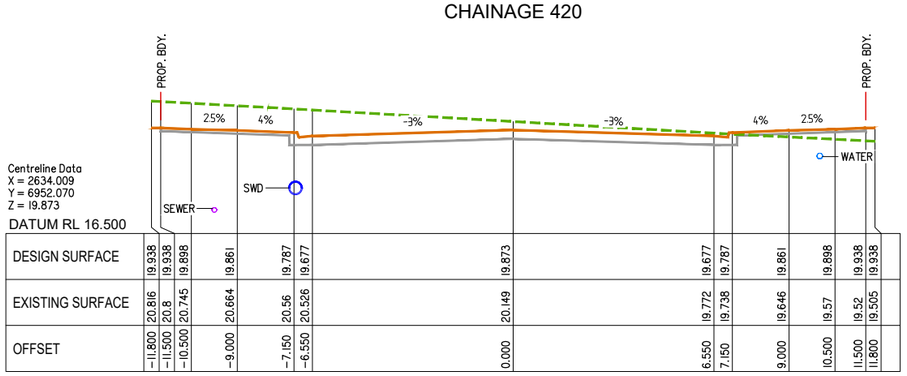
DESIGN SURFACE	19.607	19.607	19.567	19.529	19.455	19.345	19.542	19.345	19.455	19.529	19.567	19.607	19.607
EXISTING SURFACE	20.521	20.503	20.443	20.352	20.241	20.205	19.81	19.382	19.346	19.233	19.142	19.082	19.064
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 430



DESIGN SURFACE	19.808	19.808	19.768	19.730	19.656	19.546	19.743	19.546	19.656	19.730	19.768	19.808	19.808
EXISTING SURFACE	20.68	20.664	20.609	20.528	20.427	20.394	20.038	19.615	19.573	19.447	19.356	19.296	19.277
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 420



DESIGN SURFACE	19.938	19.938	19.898	19.861	19.787	19.677	19.873	19.677	19.787	19.861	19.898	19.938	19.938
EXISTING SURFACE	20.816	20.8	20.745	20.664	20.56	20.526	20.149	19.772	19.738	19.646	19.57	19.52	19.505
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 410

ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 7 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esst 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 7 OF 8

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

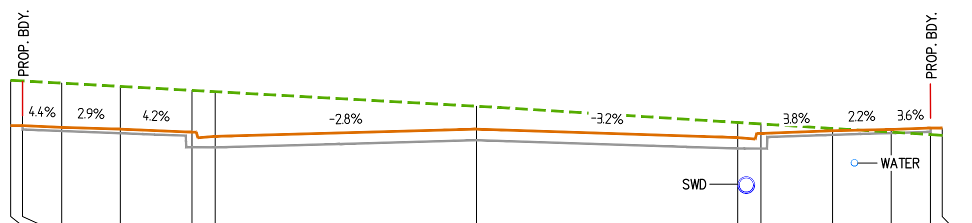
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 470
Rev. No: B

Centreline Data
X = 2683.363
Y = 6944.058
Z = 19.012

DATUM RL 16.500

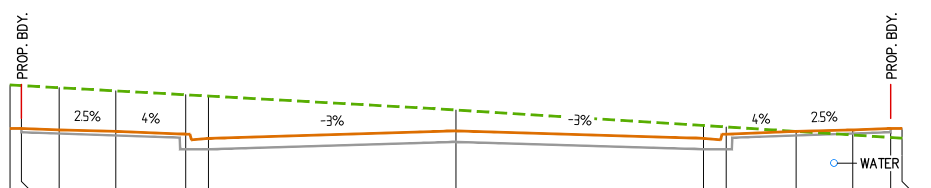


DESIGN SURFACE	19.106	19.104	19.058	19.013	18.933	18.821	19.012	18.789	18.898	18.969	19.004	19.041	19.040
EXISTING SURFACE	20.305	20.287	20.229	20.143	20.037	20.003	19.617	19.188	19.15	19.031	18.933	18.868	18.849
OFFSET	-12.325	-12.012	-10.972	-9.424	-7.526	-6.913	0.000	6.913	7.526	9.423	10.972	12.011	12.324

CHAINAGE 460

Centreline Data
X = 2673.493
Y = 6945.660
Z = 19.035

DATUM RL 17.500



DESIGN SURFACE	19.100	19.100	19.060	19.022	18.948	18.838	19.035	18.838	18.948	19.022	19.060	19.100	19.100
EXISTING SURFACE	20.25	20.233	20.177	20.094	19.99	19.957	19.588	19.177	19.139	19.021	18.926	18.862	18.843
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 450

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

ROAD CROSS SECTIONS – EASTRIDGE STREET SHEET 8 OF 8

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1 (B)

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

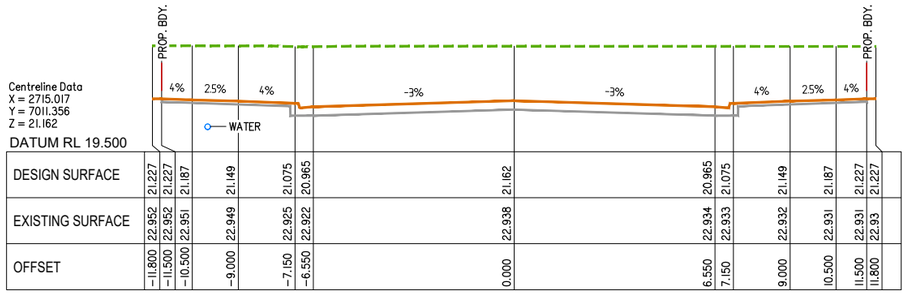
DRAWING TITLE
ROAD CROSS SECTIONS - EASTRIDGE STREET SHEET 8 OF 8

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 471
Rev. No: B

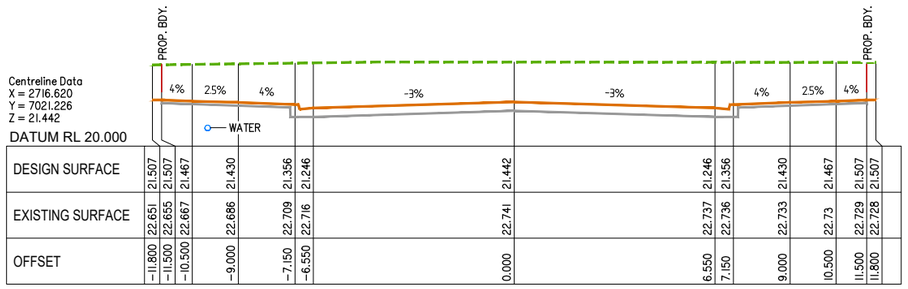


Centreline Data
X = 2715.017
Y = 7011.356
Z = 21.162

DATUM RL 19.500

DESIGN SURFACE	21.227	21.227	21.187	21.149	21.075	20.965	21.162	20.965	21.075	21.149	21.187	21.227	21.227
EXISTING SURFACE	22.952	22.952	22.951	22.949	22.925	22.922	22.938	22.934	22.933	22.932	22.931	22.931	22.93
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 30

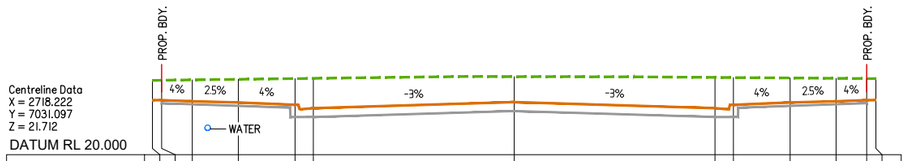


Centreline Data
X = 2716.620
Y = 7021.226
Z = 21.442

DATUM RL 20.000

DESIGN SURFACE	21.507	21.507	21.467	21.430	21.356	21.246	21.442	21.246	21.356	21.430	21.467	21.507	21.507
EXISTING SURFACE	22.651	22.655	22.667	22.686	22.709	22.716	22.741	22.737	22.736	22.733	22.73	22.729	22.728
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 20

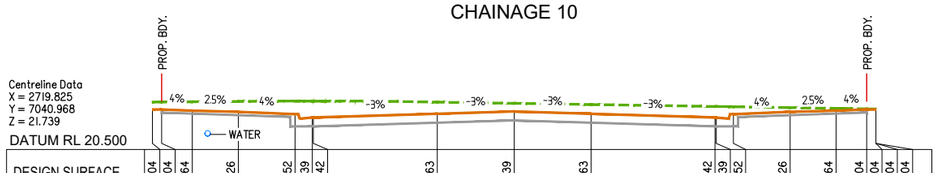


Centreline Data
X = 2718.222
Y = 7031.097
Z = 21.712

DATUM RL 20.000

DESIGN SURFACE	21.777	21.777	21.737	21.699	21.625	21.515	21.712	21.515	21.625	21.699	21.737	21.777	21.777
EXISTING SURFACE	22.422	22.425	22.438	22.457	22.48	22.487	22.544	22.518	22.513	22.5	22.488	22.481	22.479
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 10

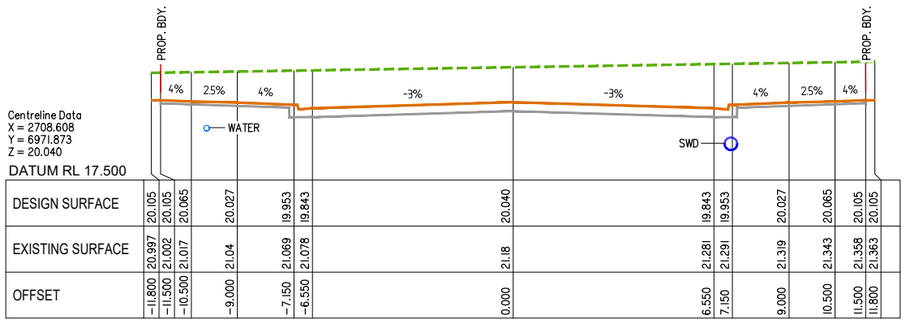


Centreline Data
X = 2719.825
Y = 7040.968
Z = 21.739

DATUM RL 20.500

DESIGN SURFACE	21.804	21.804	21.764	21.726	21.652	21.539	21.542	21.663	21.739	21.663	21.542	21.539	21.652	21.726	21.764	21.804	21.804	21.804	21.804
EXISTING SURFACE																			
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.587	-6.550	-2.507	0.000	2.507	6.550	6.587	7.150	9.000	10.500	11.500	11.800	11.800	11.800

CHAINAGE 0

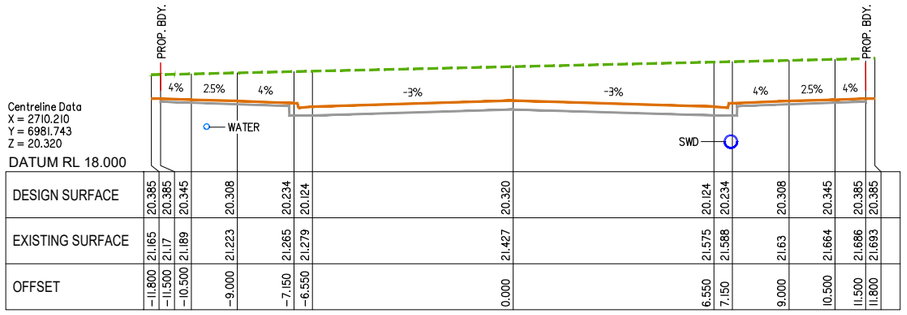


Centreline Data
X = 2708.608
Y = 6971.873
Z = 20.040

DATUM RL 17.500

DESIGN SURFACE	20.105	20.105	20.065	20.027	19.953	19.843	20.040	19.843	19.953	20.027	20.065	20.105	20.105
EXISTING SURFACE	20.997	21.002	21.017	21.04	21.069	21.078	21.18	21.281	21.291	21.319	21.343	21.358	21.363
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 70

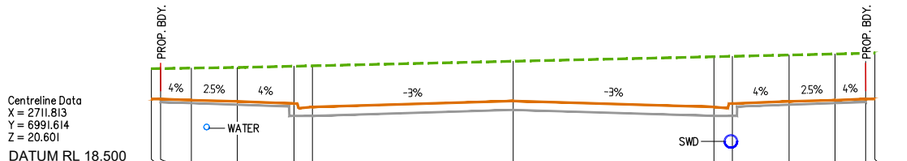


Centreline Data
X = 2710.210
Y = 6981.743
Z = 20.320

DATUM RL 18.000

DESIGN SURFACE	20.385	20.385	20.345	20.308	20.234	20.124	20.320	20.124	20.234	20.308	20.345	20.385	20.385
EXISTING SURFACE	21.165	21.17	21.189	21.223	21.265	21.279	21.427	21.575	21.588	21.63	21.664	21.686	21.693
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 60

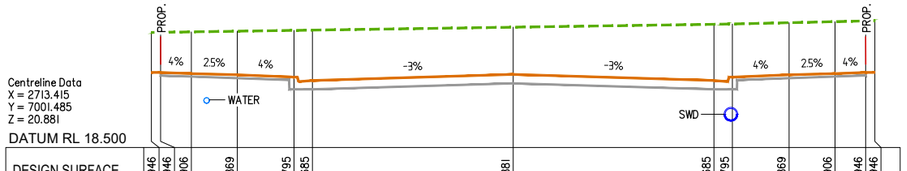


Centreline Data
X = 2711.813
Y = 6991.614
Z = 20.601

DATUM RL 18.500

DESIGN SURFACE	20.666	20.666	20.626	20.588	20.514	20.404	20.601	20.404	20.514	20.588	20.626	20.666	20.666
EXISTING SURFACE	21.654	21.658	21.673	21.694	21.734	21.748	21.896	22.044	22.057	22.099	22.133	22.155	22.162
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 50



Centreline Data
X = 2713.415
Y = 7001.485
Z = 20.881

DATUM RL 18.500

DESIGN SURFACE	20.946	20.946	20.906	20.869	20.795	20.685	20.881	20.685	20.795	20.869	20.906	20.946	20.946
EXISTING SURFACE	22.25	22.254	22.269	22.29	22.317	22.326	22.421	22.516	22.526	22.568	22.602	22.624	22.631
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 40

ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 1 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 1 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

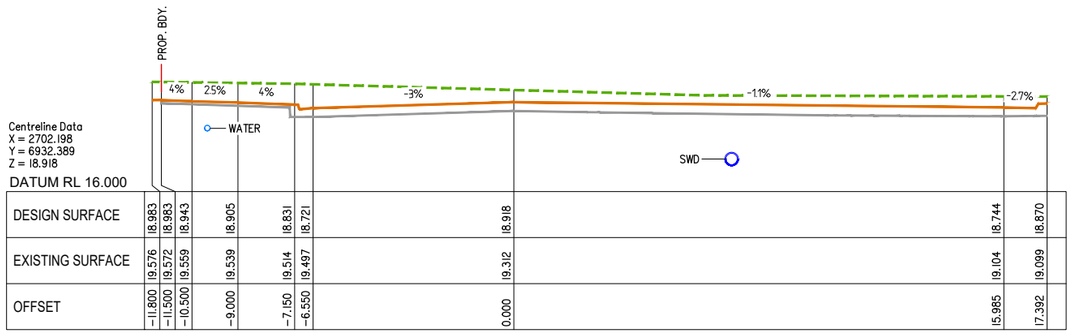
SCALE IN METRES

Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 472
Rev. No: C

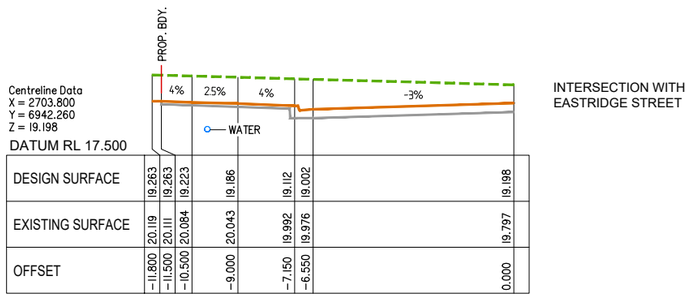


Centreline Data
X = 2702.198
Y = 6932.389
Z = 18.918

DATUM RL 16.000

DESIGN SURFACE	18.983	18.983	18.943	18.905	18.831	18.721	18.918	18.744	18.870	
EXISTING SURFACE	19.576	19.572	19.559	19.539	19.514	19.497	19.312	19.104	19.099	
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	15.985	17.392	

CHAINAGE 110



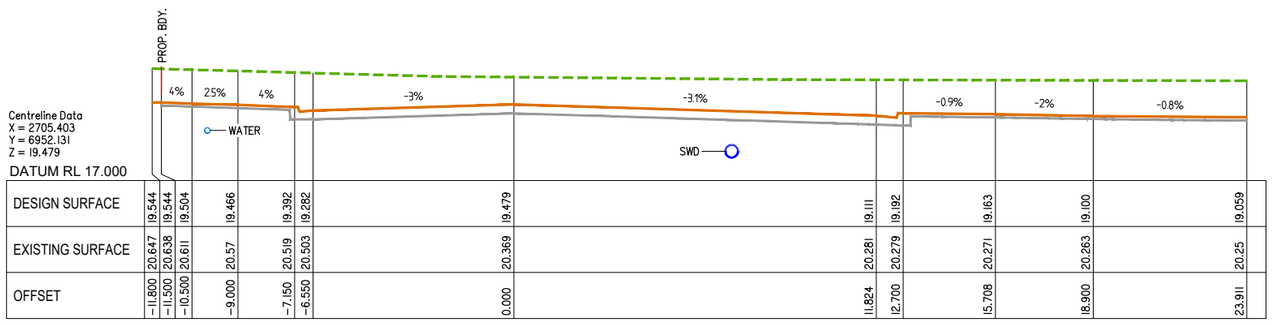
Centreline Data
X = 2703.800
Y = 6942.260
Z = 19.198

DATUM RL 17.500

INTERSECTION WITH
EASTRIDGE STREET

DESIGN SURFACE	19.263	19.263	19.223	19.186	19.112	19.002	19.198
EXISTING SURFACE	20.119	20.111	20.084	20.043	19.992	19.976	19.797
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000

CHAINAGE 100

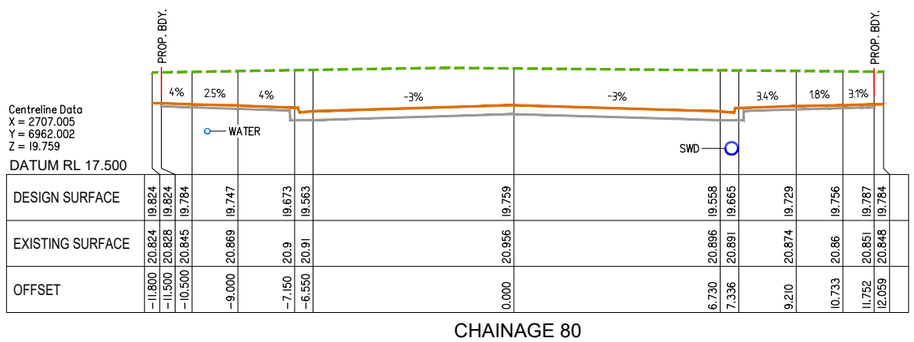


Centreline Data
X = 2705.403
Y = 6952.131
Z = 19.479

DATUM RL 17.000

DESIGN SURFACE	19.544	19.544	19.504	19.466	19.392	19.282	19.479	19.111	19.182	19.163	19.100	19.059
EXISTING SURFACE	20.647	20.638	20.611	20.57	20.519	20.503	20.369	20.281	20.279	20.271	20.263	20.25
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	11.824	12.700	15.708	18.900	23.911

CHAINAGE 90



Centreline Data
X = 2707.005
Y = 6962.002
Z = 19.759

DATUM RL 17.500

DESIGN SURFACE	19.824	19.824	19.784	19.747	19.673	19.563	19.759	19.558	19.665	19.729	19.756	19.787	19.784
EXISTING SURFACE	20.824	20.828	20.845	20.869	20.9	20.91	20.956	20.896	20.891	20.874	20.86	20.851	20.848
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.730	7.336	9.210	10.733	11.752	12.059

CHAINAGE 80

ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 2 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY
(AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA
STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS
- FAIRWAY STREET
SHEET 2 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

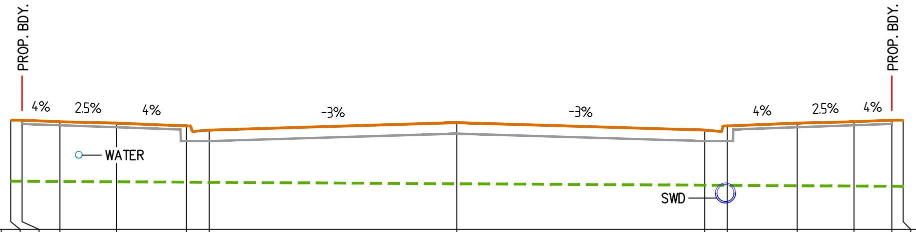
Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 473

Rev. No: C

Centreline Data
X = 2695.788
Y = 6892.906
Z = 18.315

DATUM RL 15.500

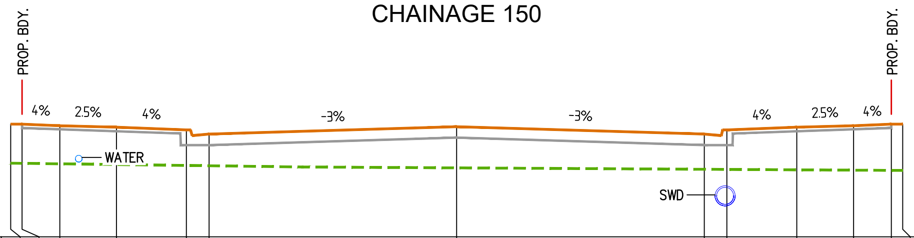


DESIGN SURFACE	18.380	18.380	18.340	18.303	18.229	18.119	18.315	18.119	18.229	18.303	18.340	18.380	18.380
EXISTING SURFACE	16.77	16.768	16.762	16.754	16.743	16.74	16.702	16.664	16.661	16.65	16.641	16.636	16.634
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 150

Centreline Data
X = 2697.391
Y = 6902.777
Z = 18.413

DATUM RL 15.500

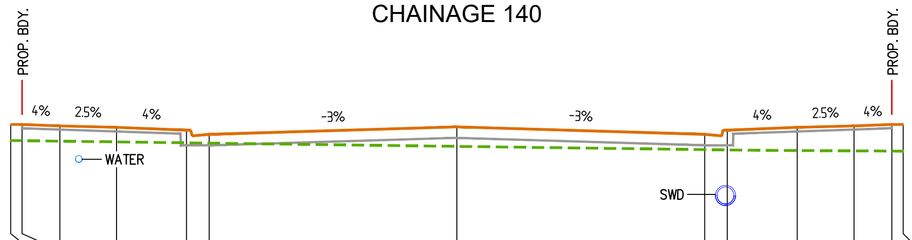


DESIGN SURFACE	18.478	18.478	18.438	18.401	18.327	18.217	18.413	18.217	18.327	18.401	18.438	18.478	18.478
EXISTING SURFACE	17.448	17.444	17.431	17.411	17.387	17.379	17.323	17.285	17.282	17.271	17.263	17.257	17.255
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 140

Centreline Data
X = 2698.993
Y = 6912.648
Z = 18.517

DATUM RL 15.500

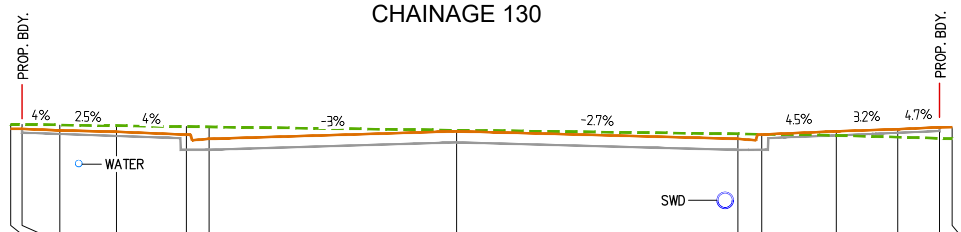


DESIGN SURFACE	18.582	18.582	18.542	18.505	18.431	18.321	18.517	18.321	18.431	18.505	18.542	18.582	18.582
EXISTING SURFACE	18.157	18.153	18.14	18.121	18.096	18.088	18.003	17.917	17.909	17.893	17.884	17.878	17.876
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 130

Centreline Data
X = 2700.596
Y = 6922.519
Z = 18.681

DATUM RL 16.000

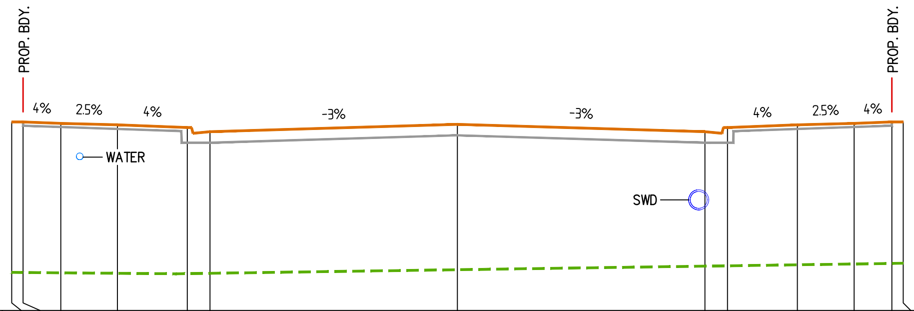


DESIGN SURFACE	18.746	18.746	18.706	18.669	18.595	18.485	18.681	18.483	18.597	18.685	18.737	18.789	18.793
EXISTING SURFACE	18.867	18.863	18.85	18.83	18.806	18.798	18.712	18.615	18.606	18.574	18.528	18.497	18.488
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	7.440	8.073	10.045	11.671	12.775	13.110

CHAINAGE 120

Centreline Data
X = 2689.379
Y = 6853.423
Z = 17.923

DATUM RL 13.000

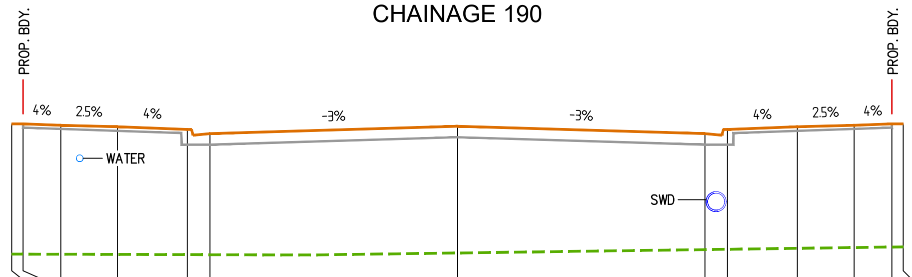


DESIGN SURFACE	17.988	17.988	17.948	17.910	17.836	17.726	17.923	17.726	17.836	17.910	17.948	17.988	17.988
EXISTING SURFACE	14.005	14.003	13.995	13.982	13.973	13.982	14.077	14.171	14.18	14.206	14.228	14.242	14.247
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 190

Centreline Data
X = 2690.981
Y = 6863.294
Z = 18.021

DATUM RL 14.000

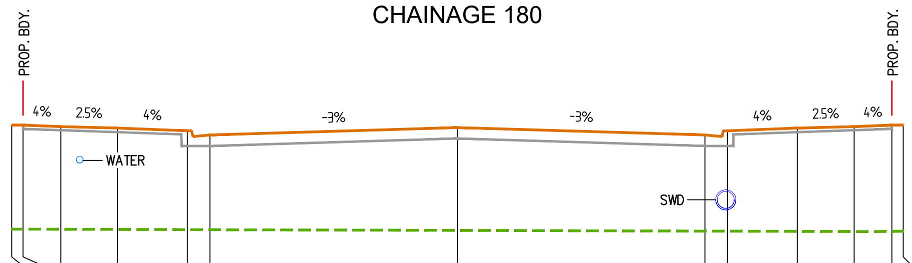


DESIGN SURFACE	18.086	18.086	18.046	18.008	17.934	17.824	18.021	17.824	17.934	18.008	18.046	18.086	18.086
EXISTING SURFACE	14.638	14.637	14.634	14.63	14.625	14.623	14.668	14.758	14.766	14.791	14.812	14.825	14.829
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 180

Centreline Data
X = 2692.584
Y = 6873.165
Z = 18.119

DATUM RL 14.500

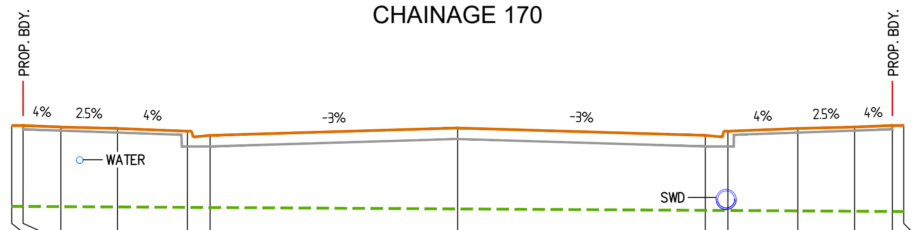


DESIGN SURFACE	18.184	18.184	18.144	18.106	18.032	17.922	18.119	17.922	18.032	18.106	18.144	18.184	18.184
EXISTING SURFACE	15.432	15.431	15.428	15.424	15.419	15.417	15.399	15.38	15.378	15.373	15.369	15.373	15.377
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 170

Centreline Data
X = 2694.186
Y = 6883.036
Z = 18.217

DATUM RL 15.500



DESIGN SURFACE	18.282	18.282	18.242	18.205	18.131	18.021	18.217	18.021	18.131	18.205	18.242	18.282	18.282
EXISTING SURFACE	16.149	16.147	16.141	16.133	16.122	16.118	16.081	16.043	16.039	16.029	16.02	16.014	16.013
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 160

ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 3 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1 (C)

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 3 OF 6

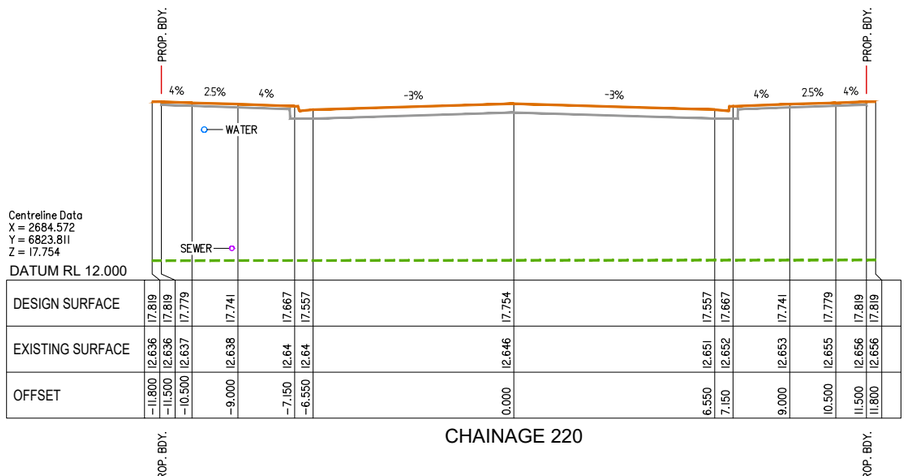
Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

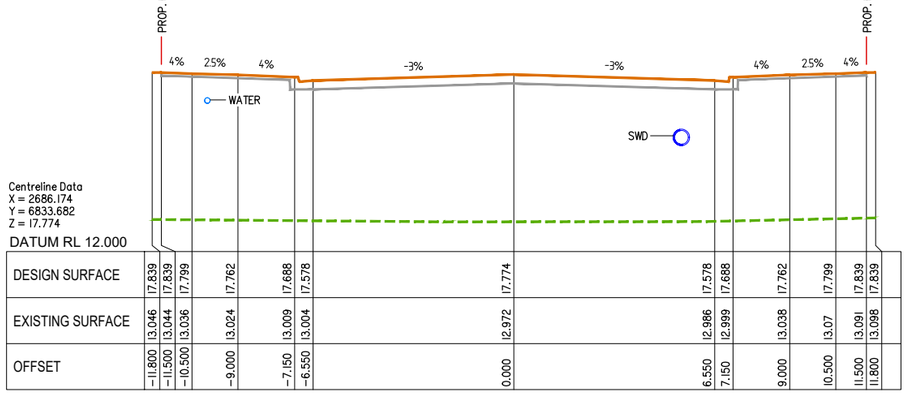
Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 474
Rev. No: C



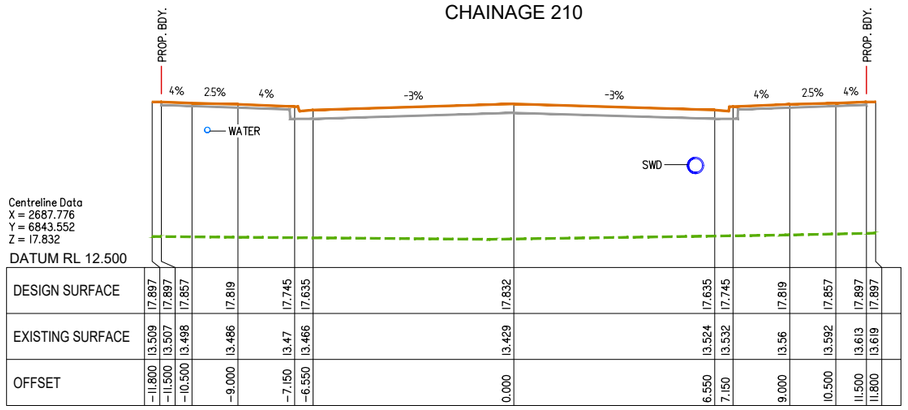
DESIGN SURFACE	17.819	17.819	17.779	17.741	17.667	17.557	17.754	17.557	17.667	17.741	17.779	17.819	17.819
EXISTING SURFACE	12.636	12.636	12.637	12.638	12.64	12.64	12.646	12.651	12.652	12.653	12.655	12.656	12.656
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 220



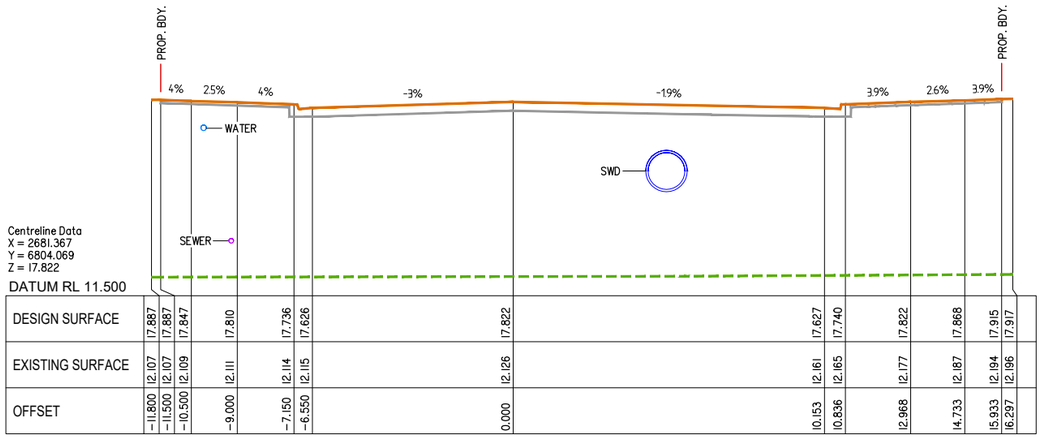
DESIGN SURFACE	17.839	17.839	17.799	17.762	17.688	17.578	17.774	17.578	17.688	17.762	17.799	17.839	17.839
EXISTING SURFACE	13.046	13.044	13.036	13.024	13.009	13.004	12.972	12.986	12.999	13.038	13.07	13.091	13.098
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 210



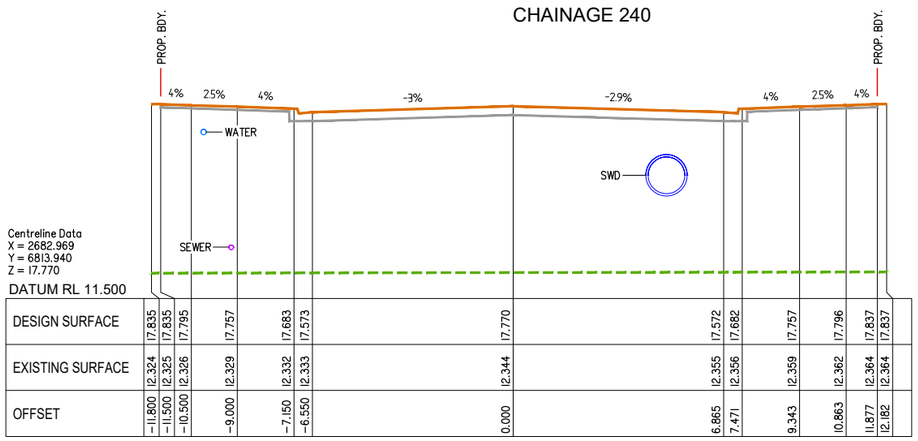
DESIGN SURFACE	17.897	17.897	17.857	17.819	17.745	17.635	17.832	17.635	17.745	17.819	17.857	17.897	17.897
EXISTING SURFACE	13.509	13.507	13.498	13.486	13.47	13.466	13.429	13.524	13.532	13.56	13.592	13.613	13.619
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 200



DESIGN SURFACE	17.887	17.887	17.847	17.810	17.736	17.626	17.822	17.627	17.740	17.822	17.868	17.915	17.917
EXISTING SURFACE	12.107	12.107	12.109	12.111	12.114	12.115	12.126	12.161	12.165	12.177	12.187	12.194	12.196
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	10.153	10.836	12.968	14.733	15.933	16.297

CHAINAGE 240



DESIGN SURFACE	17.835	17.835	17.795	17.757	17.683	17.573	17.770	17.572	17.682	17.757	17.796	17.837	17.837
EXISTING SURFACE	12.324	12.325	12.326	12.329	12.332	12.333	12.344	12.355	12.356	12.359	12.362	12.364	12.364
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.865	7.471	9.343	10.863	11.877	12.182

CHAINAGE 230

ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 4 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esit 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 4 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

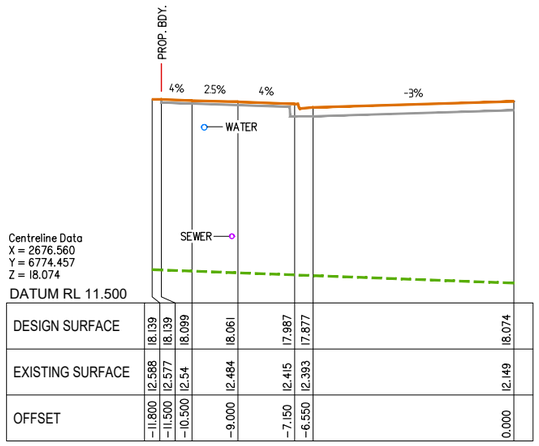
SCALE IN METRES

Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 475
Rev. No: C



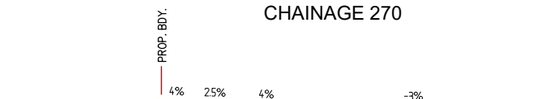
INTERSECTION WITH
HOMESTEAD DRIVE

Centreline Data
X = 2676.560
Y = 6774.457
Z = 18.074

DATUM RL 11.500

DESIGN SURFACE	18.139	18.139	18.099	18.061	17.987	17.877		18.074
EXISTING SURFACE	12.588	12.577	12.54	12.484	12.415	12.393		12.149
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550		0.000

CHAINAGE 270



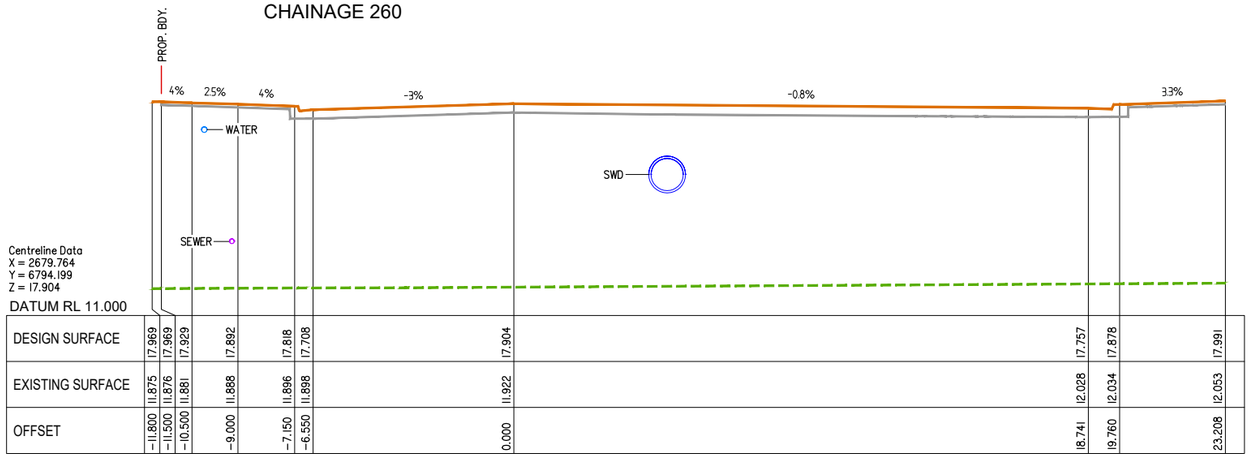
INTERSECTION WITH
HOMESTEAD DRIVE

Centreline Data
X = 2678.162
Y = 6784.328
Z = 17.989

DATUM RL 11.000

DESIGN SURFACE	18.054	18.054	18.014	17.976	17.902	17.792		17.989
EXISTING SURFACE	12.099	12.112	12.156	12.205	12.136	12.113		11.869
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550		0.000

CHAINAGE 260



Centreline Data
X = 2679.764
Y = 6794.199
Z = 17.904

DATUM RL 11.000

DESIGN SURFACE	17.969	17.969	17.929	17.892	17.818	17.708	17.904		17.757	17.878	17.991
EXISTING SURFACE	11.875	11.876	11.881	11.888	11.896	11.898	11.922		12.028	12.034	12.053
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000		18.741	19.760	23.208

CHAINAGE 250

ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 5 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esit 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY
(AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA
STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL
ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS
- FAIRWAY STREET
SHEET 5 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

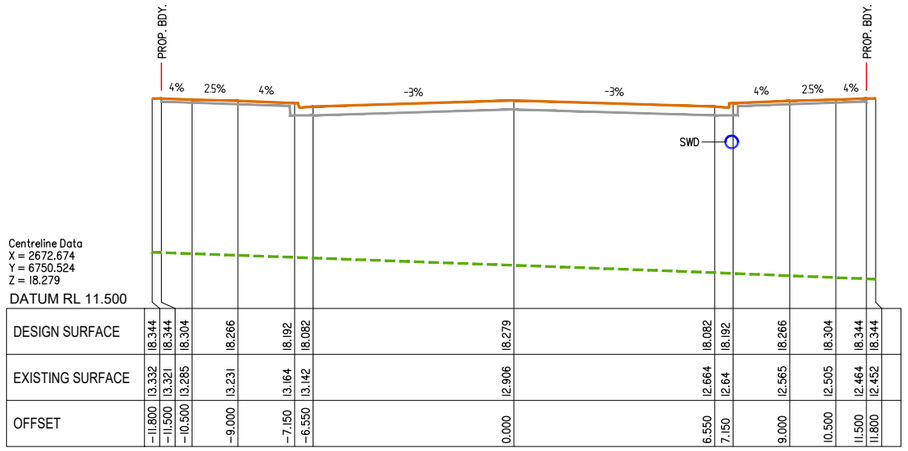
Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 476

Rev. No: C

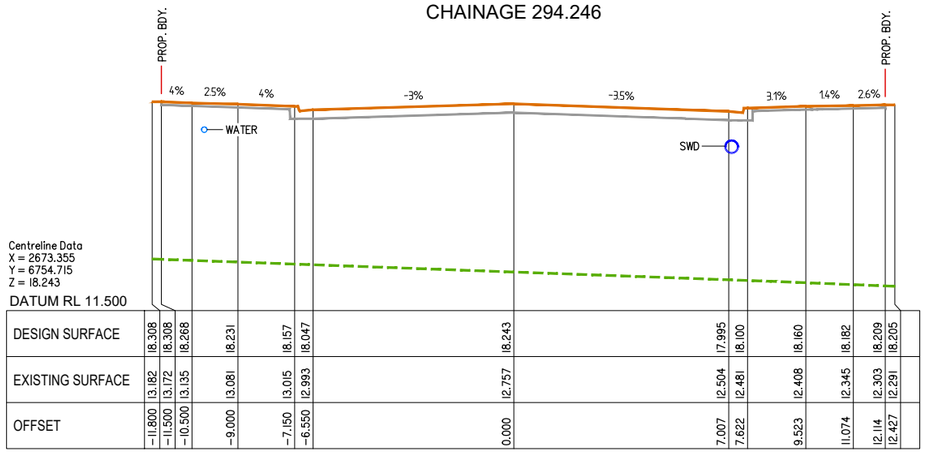


Centreline Data
X = 2672.674
Y = 6750.524
Z = 18.279

DATUM RL 11.500

DESIGN SURFACE	18.344	18.344	18.304	18.266	18.192	18.082	18.279	18.082	18.192	18.266	18.304	18.344	18.344
EXISTING SURFACE	13.332	13.321	13.285	13.231	13.164	13.142	12.906	12.664	12.64	12.565	12.505	12.464	12.452
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 294.246

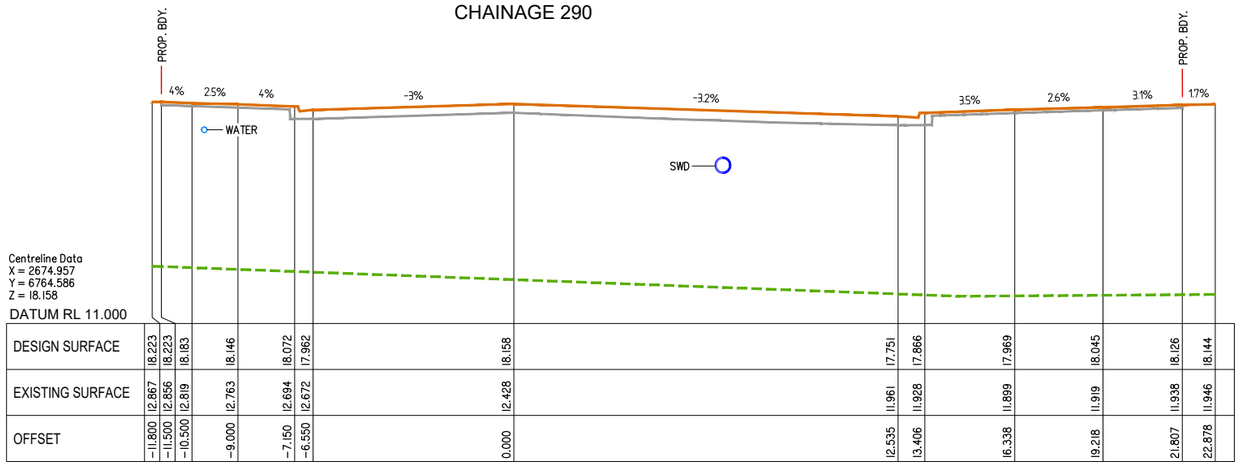


Centreline Data
X = 2673.355
Y = 6754.715
Z = 18.243

DATUM RL 11.500

DESIGN SURFACE	18.308	18.308	18.268	18.231	18.157	18.047	18.243	17.995	18.100	18.160	18.182	18.209	18.205
EXISTING SURFACE	13.182	13.172	13.135	13.081	13.015	12.993	12.757	12.504	12.481	12.408	12.345	12.303	12.291
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	7.007	7.622	9.523	11.074	12.114	12.427

CHAINAGE 290



Centreline Data
X = 2674.957
Y = 6764.586
Z = 18.158

DATUM RL 11.000

DESIGN SURFACE	18.223	18.223	18.183	18.146	18.072	17.962	18.158	17.751	17.866	17.969	18.045	18.126	18.144
EXISTING SURFACE	12.867	12.856	12.819	12.763	12.694	12.672	12.428	11.961	11.928	11.899	11.919	11.938	11.946
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	12.535	13.406	16.338	19.218	21.807	22.878

CHAINAGE 280

ROAD CROSS SECTIONS – FAIRWAY STREET SHEET 6 OF 6

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

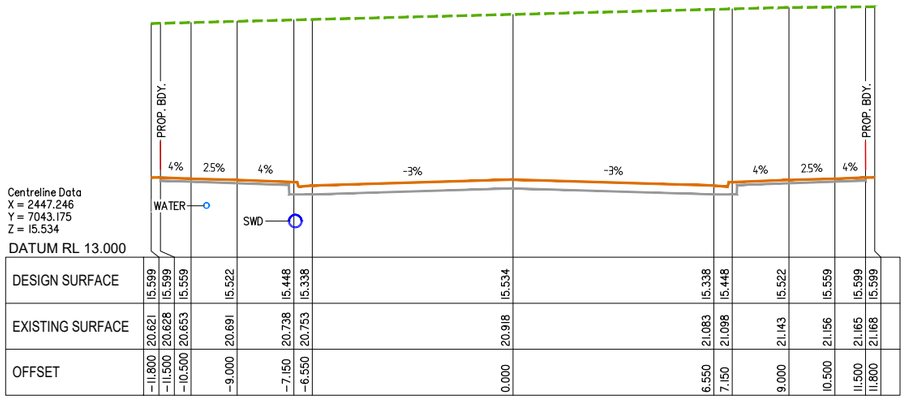
DRAWING TITLE
ROAD CROSS SECTIONS - FAIRWAY STREET SHEET 6 OF 6

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 477
Rev. No: C

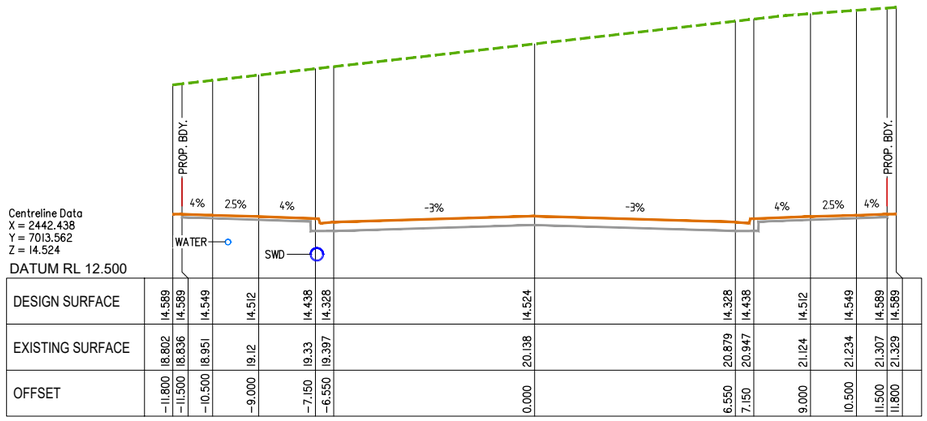


Centreline Data
X = 2447.246
Y = 7043.175
Z = 15.534

DATUM RL 13.000

DESIGN SURFACE	15.599	15.599	15.559	15.522	15.448	15.338	15.534	15.338	15.448	15.522	15.559	15.599	15.599
EXISTING SURFACE	20.621	20.628	20.653	20.691	20.738	20.753	20.918	21.083	21.098	21.143	21.156	21.165	21.168
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 60

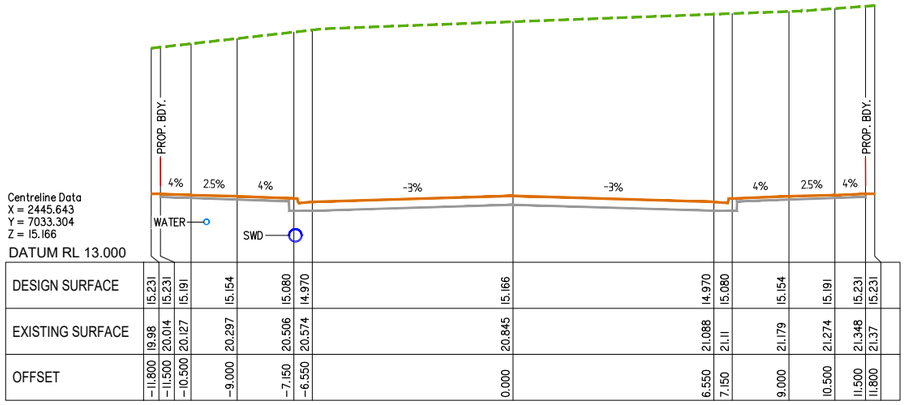


Centreline Data
X = 2442.438
Y = 7013.562
Z = 14.524

DATUM RL 12.500

DESIGN SURFACE	14.589	14.589	14.549	14.512	14.438	14.328	14.524	14.328	14.438	14.512	14.549	14.589	14.589
EXISTING SURFACE	18.802	18.836	18.951	19.12	19.33	19.397	20.138	20.879	20.947	21.124	21.234	21.307	21.329
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 30

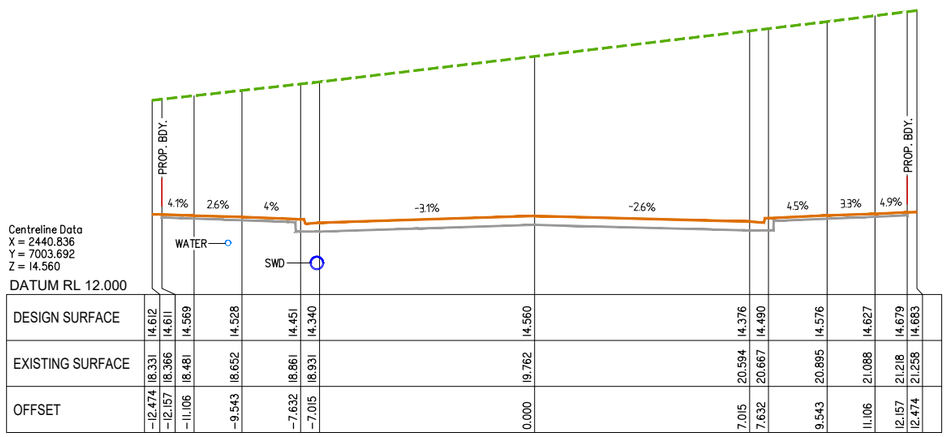


Centreline Data
X = 2445.643
Y = 7033.304
Z = 15.166

DATUM RL 13.000

DESIGN SURFACE	15.231	15.231	15.191	15.154	15.080	14.970	15.166	14.970	15.080	15.154	15.191	15.231	15.231
EXISTING SURFACE	19.98	20.014	20.127	20.297	20.506	20.574	20.845	21.088	21.11	21.179	21.274	21.348	21.37
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 50

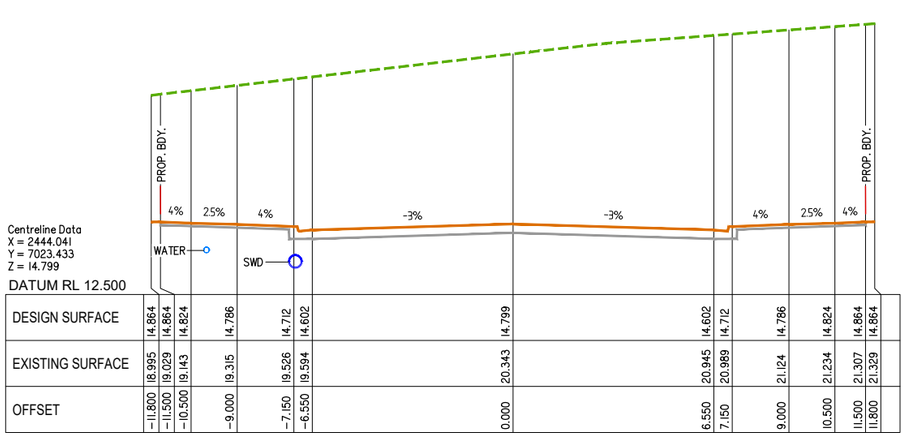


Centreline Data
X = 2440.836
Y = 7003.692
Z = 14.560

DATUM RL 12.000

DESIGN SURFACE	14.612	14.611	14.569	14.528	14.451	14.340	14.560	14.376	14.490	14.576	14.627	14.679	14.683
EXISTING SURFACE	18.331	18.366	18.481	18.652	18.861	18.931	19.762	20.594	20.667	20.895	21.088	21.218	21.258
OFFSET	-12.474	-12.157	-11.106	-9.543	-7.632	-7.015	0.000	7.015	7.632	9.543	11.106	12.157	12.474

CHAINAGE 20



Centreline Data
X = 2444.041
Y = 7023.433
Z = 14.799

DATUM RL 12.500

DESIGN SURFACE	14.864	14.864	14.824	14.786	14.712	14.602	14.799	14.602	14.712	14.786	14.824	14.864	14.864
EXISTING SURFACE	18.995	19.029	19.143	19.315	19.526	19.594	20.343	20.945	20.989	21.124	21.234	21.307	21.329
OFFSET	-11.800	-11.500	-10.500	-9.000	-7.150	-6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 40

ROAD CROSS SECTIONS – EMERI STREET EXTENSION SHEET 1 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1 B

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD CROSS SECTIONS - EMERI STREET EXTENSION SHEET 1 OF 2

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

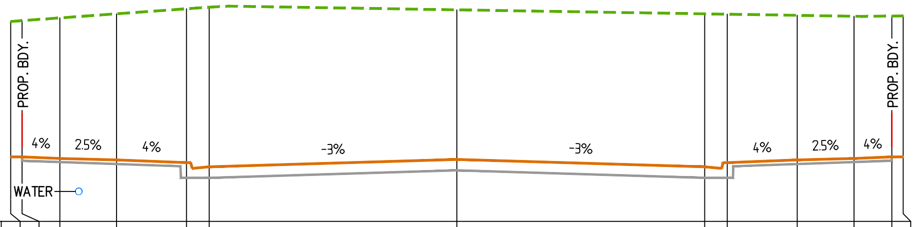
Scale 1:100 - Lengths are in Metres.

0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 478
Rev. No: B

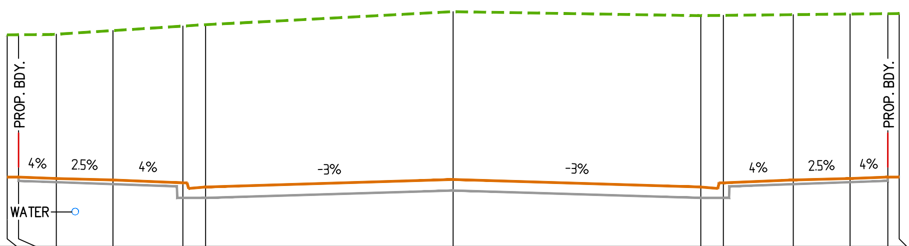
Centreline Data
X = 2452.053
Y = 7072.787
Z = 16.637
DATUM RL 15.000



DESIGN SURFACE	16.702	16.702	16.662	16.625	16.551	16.441	16.637	16.441	16.551	16.625	16.662	16.702	16.702
EXISTING SURFACE	20.287	20.309	20.381	20.489	20.623	20.663	20.594	20.489	20.479	20.449	20.425	20.429	20.433
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 90

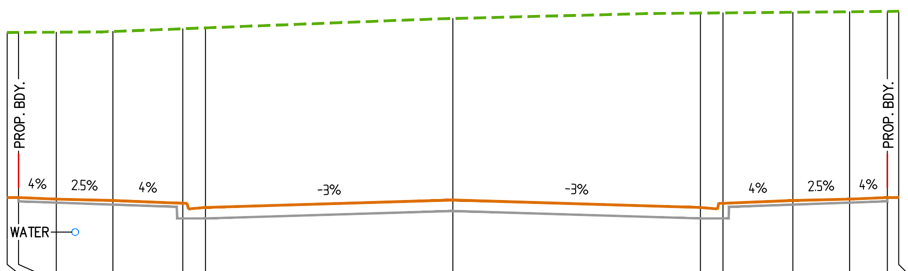
Centreline Data
X = 2450.451
Y = 7062.916
Z = 16.270
DATUM RL 14.500



DESIGN SURFACE	16.335	16.335	16.295	16.257	16.183	16.073	16.270	16.073	16.183	16.257	16.295	16.335	16.335
EXISTING SURFACE	20.098	20.1	20.114	20.21	20.328	20.365	20.71	20.606	20.612	20.632	20.648	20.658	20.661
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 80

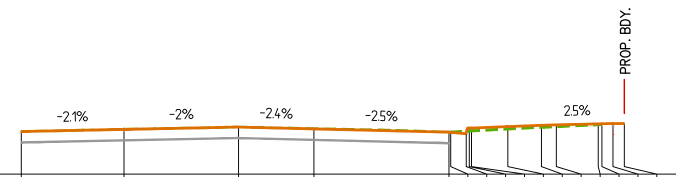
Centreline Data
X = 2448.848
Y = 7053.046
Z = 15.902
DATUM RL 14.000



DESIGN SURFACE	15.967	15.967	15.927	15.889	15.815	15.705	15.902	15.705	15.815	15.889	15.927	15.967	15.967
EXISTING SURFACE	20.334	20.336	20.342	20.361	20.433	20.456	20.704	20.847	20.853	20.869	20.883	20.892	20.895
OFFSET	−11.800	−11.500	−10.500	−9.000	−7.150	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 70

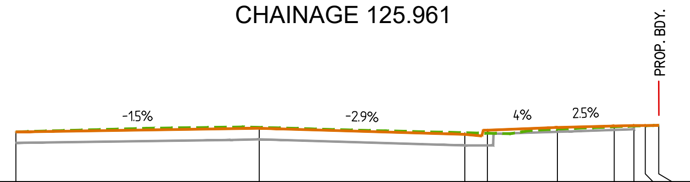
Centreline Data
X = 2464.403
Y = 7105.153
Z = 16.745
DATUM RL 15.500



DESIGN SURFACE	16.627	16.684	16.745	16.696	16.608	16.604	16.594	16.718	16.718	16.757	16.792	16.803	16.830	16.832	16.840	16.840
EXISTING SURFACE	16.627	16.684	16.745	16.703	16.612	16.614	16.635	16.639	16.643	16.692	16.739	16.754	16.806	16.811		
OFFSET	−5.749	−3.030	0.000	1.997	5.568	5.616	6.024	6.105	6.168	7.127	8.018	8.411	9.518	9.615	9.908	10.208

CHAINAGE 125.961

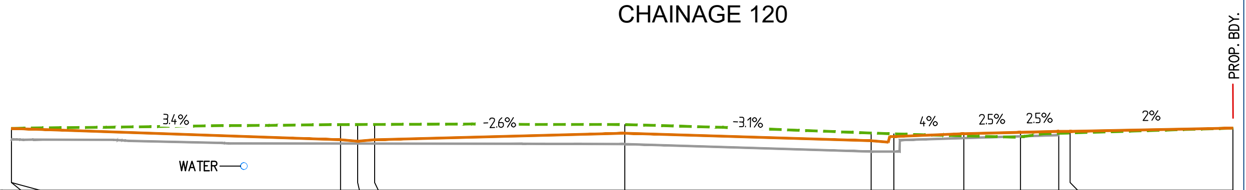
Centreline Data
X = 2459.875
Y = 7101.297
Z = 16.902
DATUM RL 15.500



DESIGN SURFACE	16.808	16.902	16.742	16.852	16.926	16.964	16.977	16.977	16.981
EXISTING SURFACE	16.808	16.925	16.786	16.772	16.881	16.942	16.963	16.971	16.981
OFFSET	−6.431	0.000	5.436	6.036	7.886	9.386	9.909	10.209	10.566

CHAINAGE 120

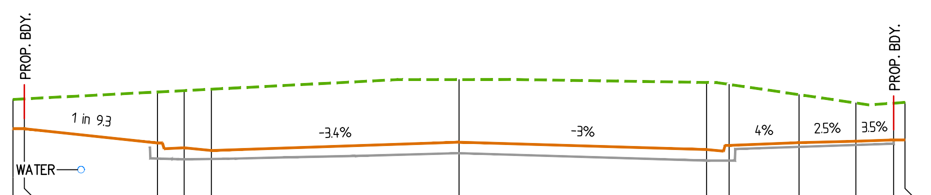
Centreline Data
X = 2455.305
Y = 7092.520
Z = 17.010
DATUM RL 15.500



DESIGN SURFACE	17.135	17.135	16.836	16.796	16.836	17.010	16.811	16.921	16.995	17.032	17.058	17.058	17.145
EXISTING SURFACE	17.136	17.136	17.238	17.24	17.242	17.239	17.014	16.992	16.94	16.914	17.007	17.016	17.145
OFFSET	−16.222	−16.222	−7.516	−7.065	−6.614	0.000	6.518	7.118	8.968	10.468	11.480	11.780	16.086

CHAINAGE 110

Centreline Data
X = 2453.655
Y = 7082.658
Z = 16.922
DATUM RL 15.500



DESIGN SURFACE	17.160	17.279	16.902	16.772	16.702	16.922	16.725	16.835	16.909	16.947	16.982	16.982
EXISTING SURFACE	18.052	18.068	18.249	18.285	18.322	18.578	18.502	18.45	18.179	17.959	17.953	17.974
OFFSET	−11.800	−11.500	−7.979	−7.273	−6.550	0.000	6.550	7.150	9.000	10.500	11.500	11.800

CHAINAGE 100

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 450-479.dwg

ROAD CROSS SECTIONS – EMERI STREET EXTENSION SHEET 2 OF 2

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1 (B)

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

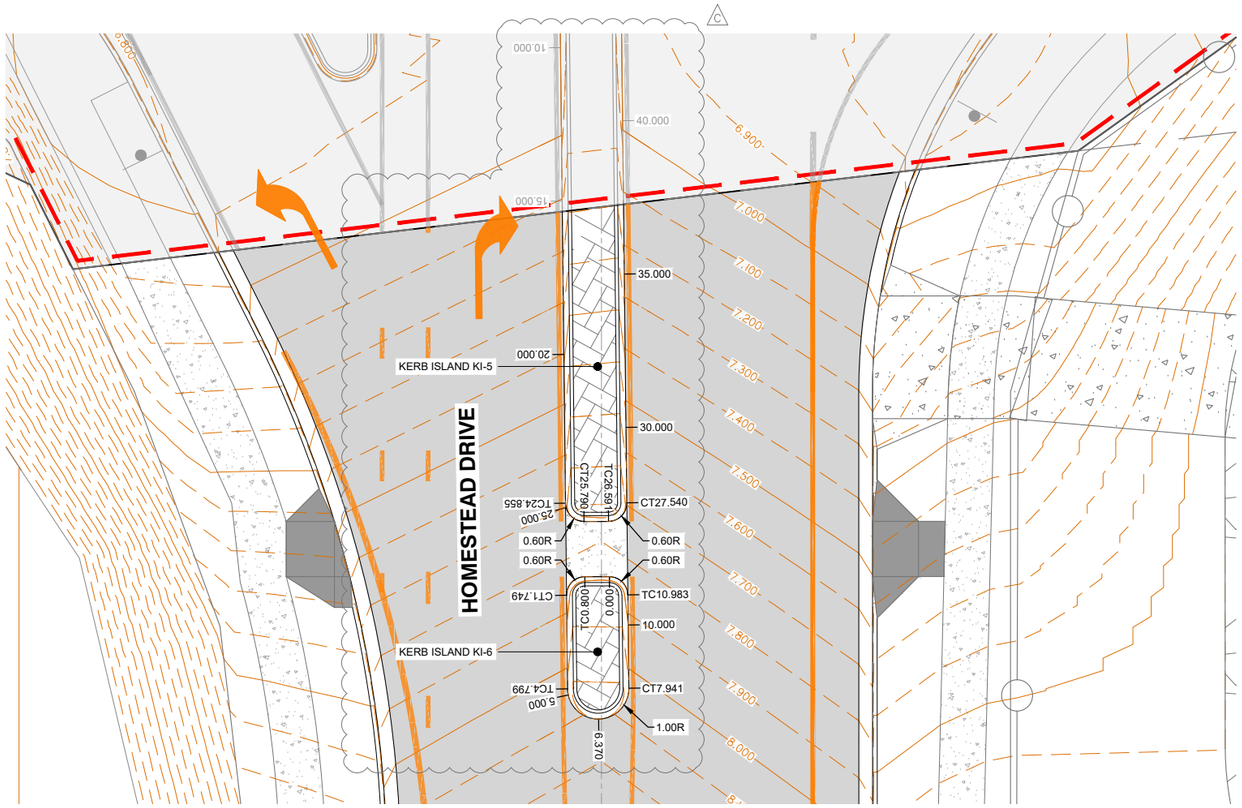
DRAWING TITLE
ROAD CROSS SECTIONS - EMERI STREET EXTENSION SHEET 2 OF 2

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
Scale 1:100 - Lengths are in Metres.
0 1 2 3 4 5 6 7 8

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 479
Rev. No: B



KERB ISLAND KI 5 & 6 LAYOUT PLAN

KERB ISLAND KI–5 SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2193.907	7024.938	7.000				
IP 2	0.785	2193.413	7025.808	7.016		R = –1.000	1.571	90°00'00.00"
CC	1.571	2192.544	7025.313	7.023	240°22'28.51"			
IP 3	2.356	2191.674	7024.819	7.014		R = –1.000	1.571	90°00'00.00"
CT	3.142	2192.169	7023.950	7.000	150°22'28.51"			
	5.000	2193.087	7022.334	6.971	150°22'28.51"			
	10.000	2195.559	7017.988	6.931	150°22'28.51"			
	15.000	2198.031	7013.642	7.104	150°22'28.51"			
	20.000	2200.502	7009.295	7.402	150°22'28.51"			
TC	24.855	2202.902	7005.075	7.693	150°22'28.51"			
	25.000	2202.988	7004.959	7.702	136°28'59.69"			
IP 4	25.323	2203.195	7004.559	7.723		R = –0.600	0.936	89°22'33.39"
CT	25.790	2203.714	7004.847	7.745	60°59'55.12"			
TC	26.591	2204.414	7005.235	7.753	60°59'55.12"			
IP 5	27.065	2204.945	7005.529	7.727		R = –0.600	0.949	90°37'26.61"
CT	27.540	2204.645	7006.056	7.695	330°22'28.51"			
	30.000	2203.428	7008.195	7.552	330°22'28.51"			
	35.000	2200.957	7012.542	7.256	330°22'28.51"			
	40.000	2198.485	7016.888	6.987	330°22'28.51"			
	45.000	2196.014	7021.234	6.933	330°22'28.51"			

KERB ISLAND KI 6 SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2205.315	7003.677	7.856				
TC	0.800	2204.616	7003.289	7.850	240°59'55.12"			
IP 2	1.275	2204.085	7002.995	7.848		R = –0.600	0.949	90°37'26.61"
CT	1.749	2204.385	7002.467	7.867	150°22'28.51"			
TC	4.799	2205.893	6999.816	8.038	150°22'28.51"			
	5.000	2206.009	6999.652	8.049	138°52'45.56"			
IP 3	5.585	2206.387	6998.946	8.085		R = –1.000	1.571	90°00'00.00"
CC	6.370	2207.256	6999.441	8.122	60°22'28.51"			
IP 4	7.156	2208.126	6999.935	8.085		R = –1.000	1.571	90°00'00.00"
CT	7.941	2207.631	7000.804	8.035	330°22'28.51"			
	10.000	2206.614	7002.594	7.921	330°22'28.51"			
TC	10.983	2206.128	7003.448	7.866	330°22'28.51"			
IP 5	11.451	2205.834	7003.964	7.849		R = –0.600	0.936	89°22'33.39"
CT	11.919	2205.315	7003.677	7.856	240°59'55.12"			

KERB ISLAND SETOUT DETAILS SHEET 1 OF 2

Q:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 480.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

KERB ISLAND SETOUT DETAILS SHEET 1 OF 2

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

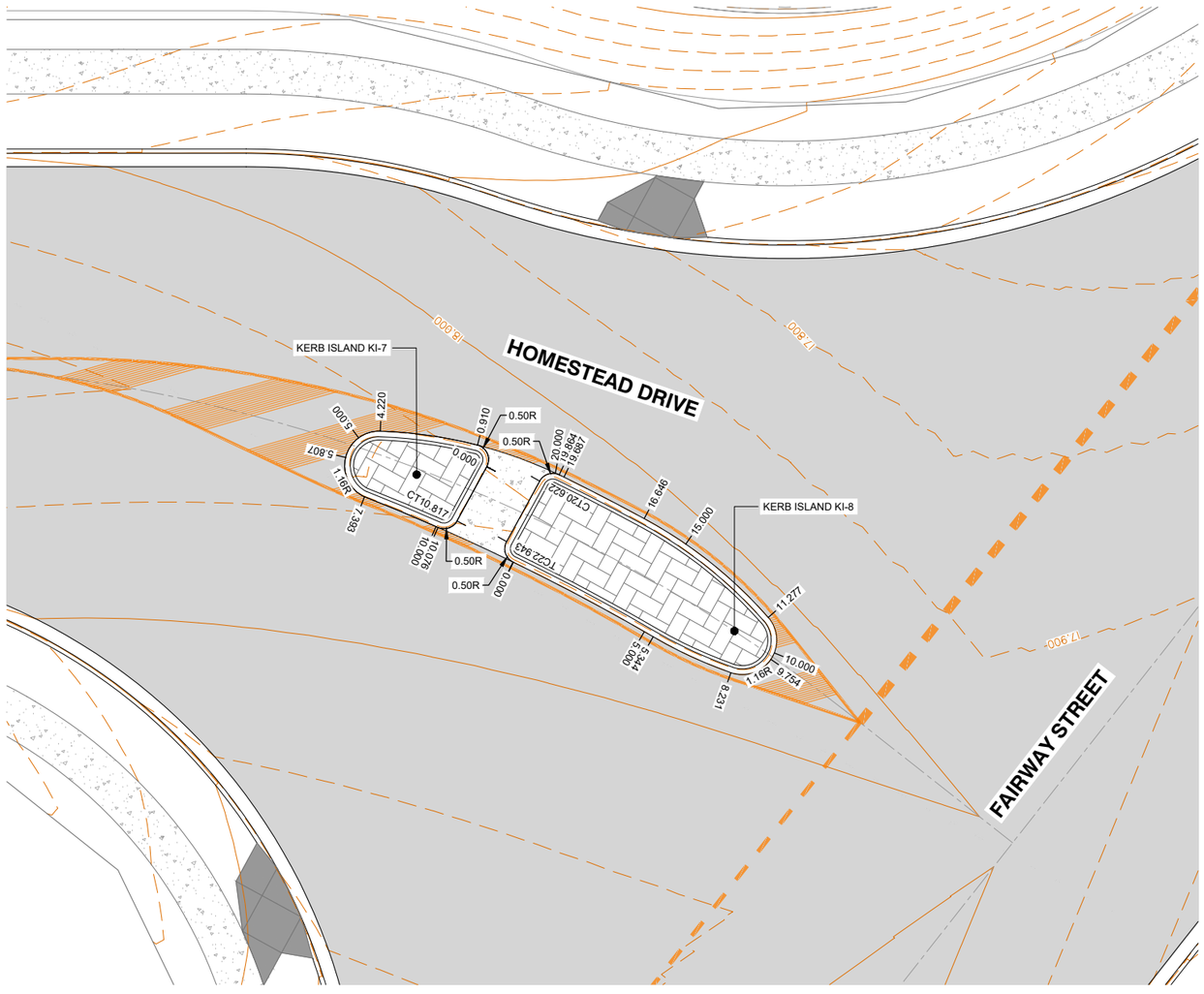
SCALE IN METRES

0 2 4 6 8 10

1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 480
Rev. No: C



KERB ISLAND KI–7 & KI–8 LAYOUT PLAN

KERB ISLAND KI–7 SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2656.491	6786.542	18.096				
IP 2	0.455	2656.488	6787.185	18.085		R = –0.500	0.910	104°17'11.26"
CC	0.910	2655.865	6787.023	18.083	255°26'26.86"			
IP 3	2.565	2654.257	6786.606	18.103		R = –15.160	3.310	12°30'39.87"
CC	4.220	2652.777	6785.849	18.126	242°55'46.99"			
	5.000	2652.249	6785.296	18.144	204°25'22.87"			
IP 4	5.013	2651.936	6785.419	18.144		R = –1.160	1.586	78°20'44.22"
CC	5.807	2652.187	6784.508	18.143	164°35'02.77"			
IP 5	6.600	2652.438	6783.597	18.124		R = –1.160	1.586	78°20'44.22"
IP 6	7.393	2653.381	6783.659	18.112				
IP 7	8.734	2654.712	6783.834	18.103		R = 71.159	2.683	2°09'37.25"
	10.000	2655.972	6783.951	18.095	84°36'47.61"			
CC	10.076	2656.047	6783.958	18.095	84°40'27.35"			
IP 8	10.446	2656.503	6784.001	18.096		R = –0.500	0.741	84°56'49.24"
CT	10.817	2656.501	6784.459	18.102	359°43'38.11"			

KERB ISLAND KI–8 SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2658.827	6784.163	18.078				
IP 2	2.672	2661.497	6784.306	18.062		R = 71.159	5.344	4°18'11.74"
	5.000	2663.825	6784.256	18.049	90°56'39.67"			
CC	5.344	2664.169	6784.249	18.047	91°13'18.18"			
IP 3	6.788	2665.617	6784.219	18.041		R = –15.160	2.886	10°54'30.50"
CC	8.231	2667.044	6784.462	18.038	80°18'47.68"			
IP 4	8.992	2667.924	6784.612	18.041		R = –1.160	1.523	75°13'12.90"
CC	9.754	2668.004	6785.503	18.053	5°05'34.78"			
	10.000	2668.000	6785.748	18.050	352°55'32.54"			
IP 5	10.515	2668.083	6786.393	18.038		R = –1.160	1.523	75°13'12.90"
IP 6	11.277	2667.243	6786.696	18.028				
IP 7	13.961	2664.688	6787.611	18.029		R = –15.160	5.370	20°17'38.99"
	15.000	2663.619	6787.510	18.031	275°37'17.11"			
IP 8	16.646	2661.975	6787.582	18.039				
IP 9	18.167	2660.454	6787.566	18.048		R = –79.156	3.041	2°12'04.85"
CC	19.687	2658.935	6787.492	18.057	267°11'54.77"			
IP 10	19.776	2658.847	6787.488	18.058		R = –15.160	0.177	0°40'06.87"
CC	19.864	2658.759	6787.482	18.059	266°31'47.90"			
	20.000	2658.626	6787.456	18.060	250°58'38.61"			
IP 11	20.243	2658.287	6787.454	18.065		R = –0.500	0.757	86°48'09.79"
CT	20.622	2658.289	6786.981	18.076	179°43'38.11"			
TC	22.943	2658.300	6784.660	18.092	179°43'38.11"			
IP 12	23.348	2658.303	6784.134	18.083		R = –0.500	0.810	92°48'31.67"

KERB ISLAND SETOUT DETAILS SHEET 2 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 480.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

KERB ISLAND SETOUT DETAILS SHEET 2 OF 2

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

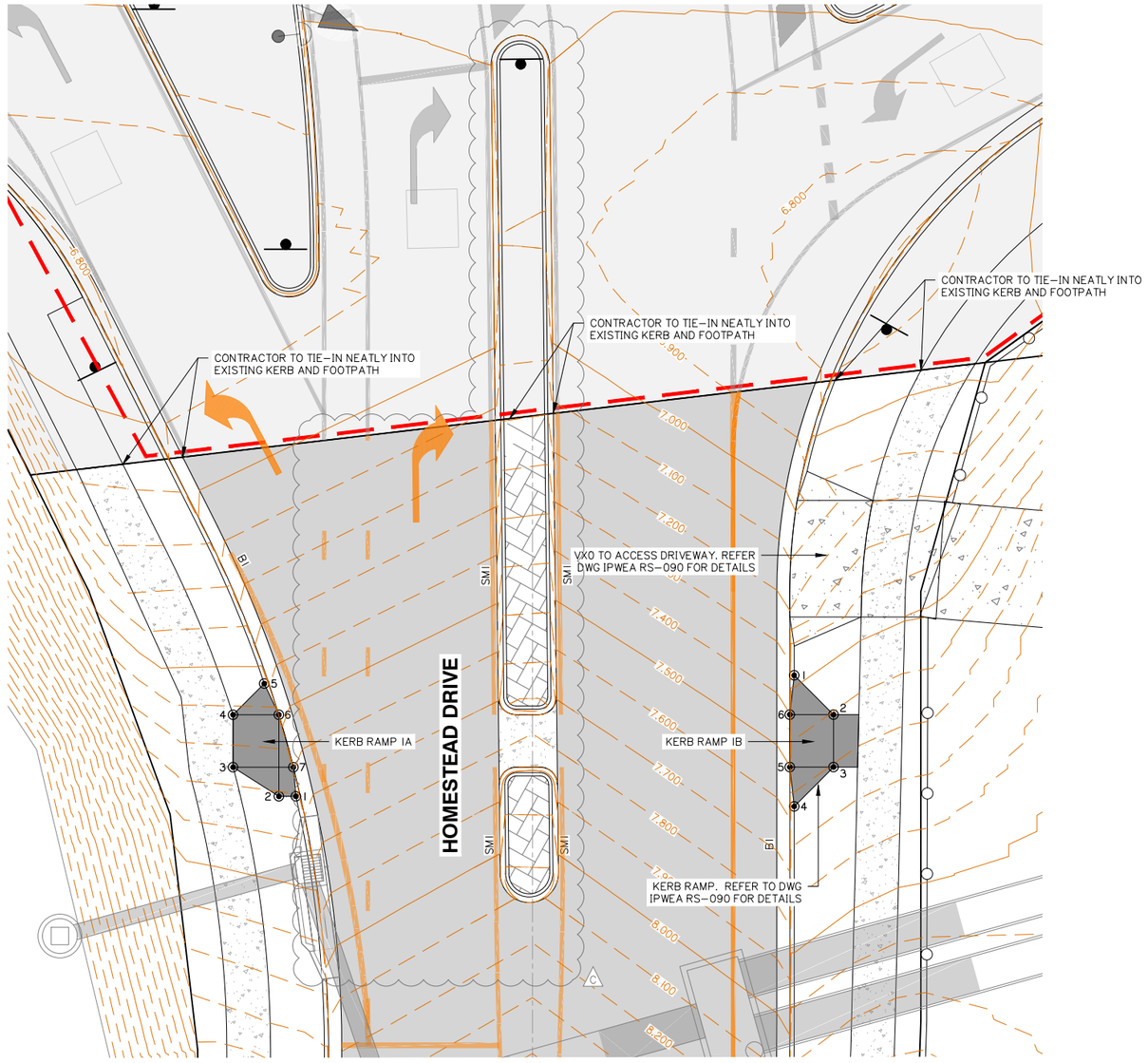
SCALE IN METRES

0 2 4 6 8 10

1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 481
Rev. No: C



KERB RAMP IA SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2198.467	6998.737	BACK OF KERB
2	2197.954	6998.453	RAMP
3	2196.092	6998.564	RAMP
4	2195.221	7000.139	RAMP
5	1064.222	7001.595	BACK OF KERB
6	2196.597	7000.901	INVERT OF KERB
7	2197.908	6999.570	INVERT OF KERB

KERB RAMP IB SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2211.426	7010.666	BACK OF KERB
2	2213.261	7010.139	RAMP
3	2214.134	7008.565	RAMP
4	2213.608	7006.730	BACK OF KERB
5	2212.822	7007.838	INVERT OF KERB
6	2211.949	7009.412	INVERT OF KERB

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD INTERSECTION DETAILS SHEET 1 OF 8

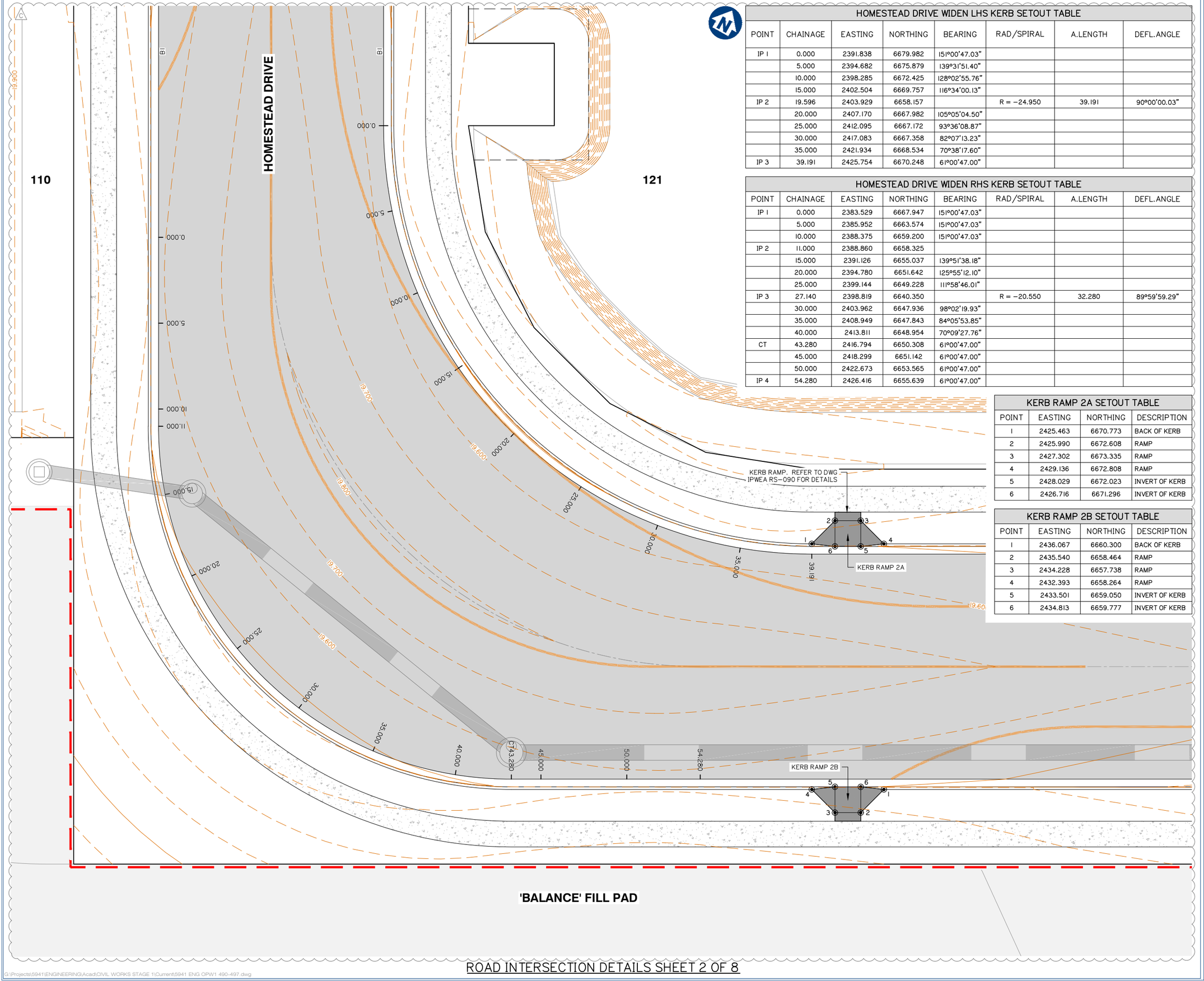
Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 2 4 6 8 10
1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 490
Rev. No: C

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 490-497.dwg



HOMESTEAD DRIVE WIDEN LHS KERB SETOUT TABLE

POINT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2391.838	6679.982	151°00'47.03"			
	5.000	2394.682	6675.879	139°31'51.40"			
	10.000	2398.285	6672.425	128°02'55.76"			
	15.000	2402.504	6669.757	116°34'00.13"			
IP 2	19.596	2403.929	6658.157		R = -24.950	39.191	90°00'00.03"
	20.000	2407.170	6667.982	105°05'04.50"			
	25.000	2412.095	6667.172	93°36'08.87"			
	30.000	2417.083	6667.358	82°07'13.23"			
	35.000	2421.934	6668.534	70°38'17.60"			
IP 3	39.191	2425.754	6670.248	61°00'47.00"			

HOMESTEAD DRIVE WIDEN RHS KERB SETOUT TABLE

POINT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2383.529	6667.947	151°00'47.03"			
	5.000	2385.952	6663.574	151°00'47.03"			
	10.000	2388.375	6659.200	151°00'47.03"			
IP 2	11.000	2388.860	6658.325				
	15.000	2391.126	6655.037	139°51'38.18"			
	20.000	2394.780	6651.642	125°55'12.10"			
	25.000	2399.144	6649.228	111°58'46.01"			
IP 3	27.140	2398.819	6640.350		R = -20.550	32.280	89°59'59.29"
	30.000	2403.962	6647.936	98°02'19.93"			
	35.000	2408.949	6647.843	84°05'53.85"			
	40.000	2413.811	6648.954	70°09'27.76"			
CT	43.280	2416.794	6650.308	61°00'47.00"			
	45.000	2418.299	6651.142	61°00'47.00"			
	50.000	2422.673	6653.565	61°00'47.00"			
IP 4	54.280	2426.416	6655.639	61°00'47.00"			

KERB RAMP 2A SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2425.463	6670.773	BACK OF KERB
2	2425.990	6672.608	RAMP
3	2427.302	6673.335	RAMP
4	2429.136	6672.808	RAMP
5	2428.029	6672.023	INVERT OF KERB
6	2426.716	6671.296	INVERT OF KERB

KERB RAMP 2B SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2436.067	6660.300	BACK OF KERB
2	2435.540	6658.464	RAMP
3	2434.228	6657.738	RAMP
4	2432.393	6658.264	RAMP
5	2433.501	6659.050	INVERT OF KERB
6	2434.813	6659.777	INVERT OF KERB

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD INTERSECTION DETAILS SHEET 2 OF 8

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 2 4 6 8 10

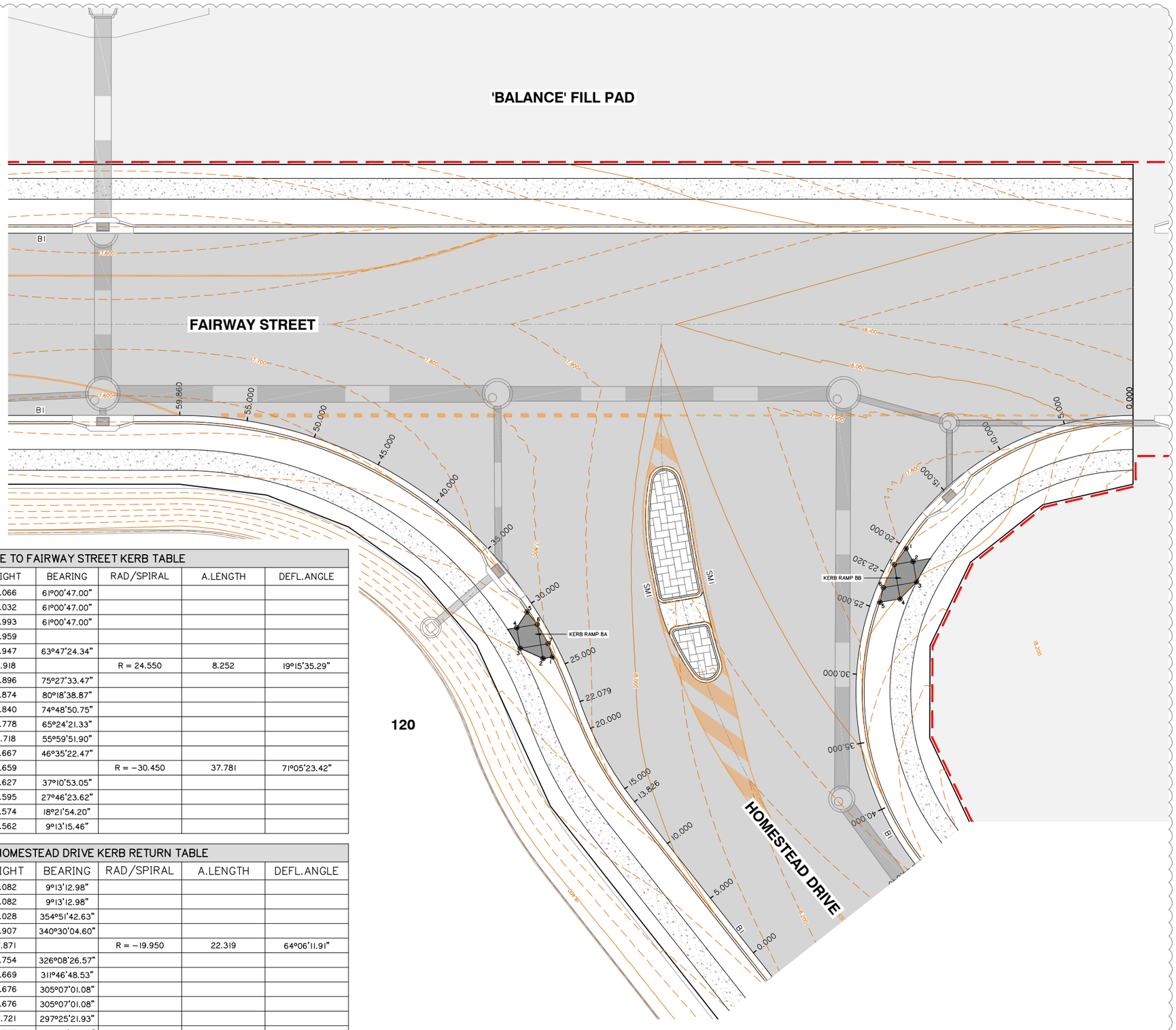
1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 491 Rev. No: C

ROAD INTERSECTION DETAILS SHEET 2 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 490-497.dwg



KERB RAMP 8A SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2655.748	6795.596	BACK OF KERB
2	2655.745	6796.297	RAMP
3	2656.737	6797.801	RAMP
4	2658.237	6797.808	RAMP
5	2659.242	6796.891	INVERT OF KERB
6	2658.245	6796.308	INVERT OF KERB
7	2656.747	6795.758	RAMP

KERB RAMP 8B SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2659.374	6769.231	BACK OF KERB
2	2658.375	6768.882	RAMP
3	2656.884	6768.875	RAMP
4	2655.869	6770.243	RAMP
5	2655.862	6771.714	INVERT OF KERB
6	2656.864	6771.298	INVERT OF KERB
7	2658.369	6770.255	RAMP

HOMESTEAD DRIVE TO FAIRWAY STREET KERB TABLE								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2632.426	6784.747	18.066	61°00'47.00"			
	5.000	2636.800	6787.170	18.032	61°00'47.00"			
	10.000	2641.174	6789.593	17.993	61°00'47.00"			
IP 2	13.826	2644.521	6791.447	17.959				
	15.000	2645.561	6791.991	17.947	63°47'24.34"			
IP 3	17.953	2648.166	6793.464	17.918		R = 24.550	8.252	19°15'35.29"
	20.000	2650.240	6793.729	17.896	75°27'33.47"			
CC	22.079	2652.272	6794.165	17.874	80°18'38.87"			
	25.000	2655.123	6794.794	17.840	74°48'50.75"			
	30.000	2659.820	6796.493	17.778	65°24'21.33"			
	35.000	2664.175	6798.937	17.718	55°59'51.90"			
	40.000	2668.073	6802.060	17.667	46°35'22.47"			
IP 4	40.969	2673.717	6797.826	17.659		R = −30.450	37.781	71°05'23.42"
	45.000	2671.407	6805.778	17.627	37°10'53.05"			
	50.000	2674.089	6809.991	17.595	27°46'23.62"			
	55.000	2676.046	6814.586	17.574	18°21'54.20"			
IP 5	59.860	2677.203	6819.301	17.562	9°13'15.46"			

FARIWAY STREET TO HOMESTEAD DRIVE KERB RETURN TABLE								
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2666.209	6751.573	18.082	9°13'12.98"			
TC	0.001	2666.209	6751.574	18.082	9°13'12.98"			
	5.000	2666.386	6756.557	18.028	354°51'42.63"			
	10.000	2665.322	6761.429	17.907	340°30'04.60"			
IP 2	11.160	2668.210	6763.903	17.871		R = −19.950	22.319	64°06'11.91"
	15.000	2663.083	6765.885	17.754	326°08'26.57"			
	20.000	2659.809	6769.646	17.669	311°46'48.53"			
CT	22.320	2657.993	6771.088	17.676	305°07'01.08"			
TC	22.321	2657.992	6771.089	17.676	305°07'01.08"			
	25.000	2655.704	6772.478	17.721	297°25'21.93"			
	30.000	2651.025	6774.204	17.842	283°03'43.90"			
IP 3	33.481	2647.775	6778.274	17.926		R = −19.950	22.319	64°06'13.49"
	35.000	2646.064	6774.715	17.962	268°42'05.87"			
	40.000	2641.132	6773.980	18.045	254°20'27.84"			
CT	44.640	2636.849	6772.221	18.080	241°00'47.59"			
IP 4	44.641	2636.849	6772.221	18.080				
	45.000	2636.535	6772.047	18.082	241°00'47.17"			
IP 5	45.093	2636.453	6772.002	18.083	241°00'47.17"			

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD INTERSECTION DETAILS SHEET 3 OF 8

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

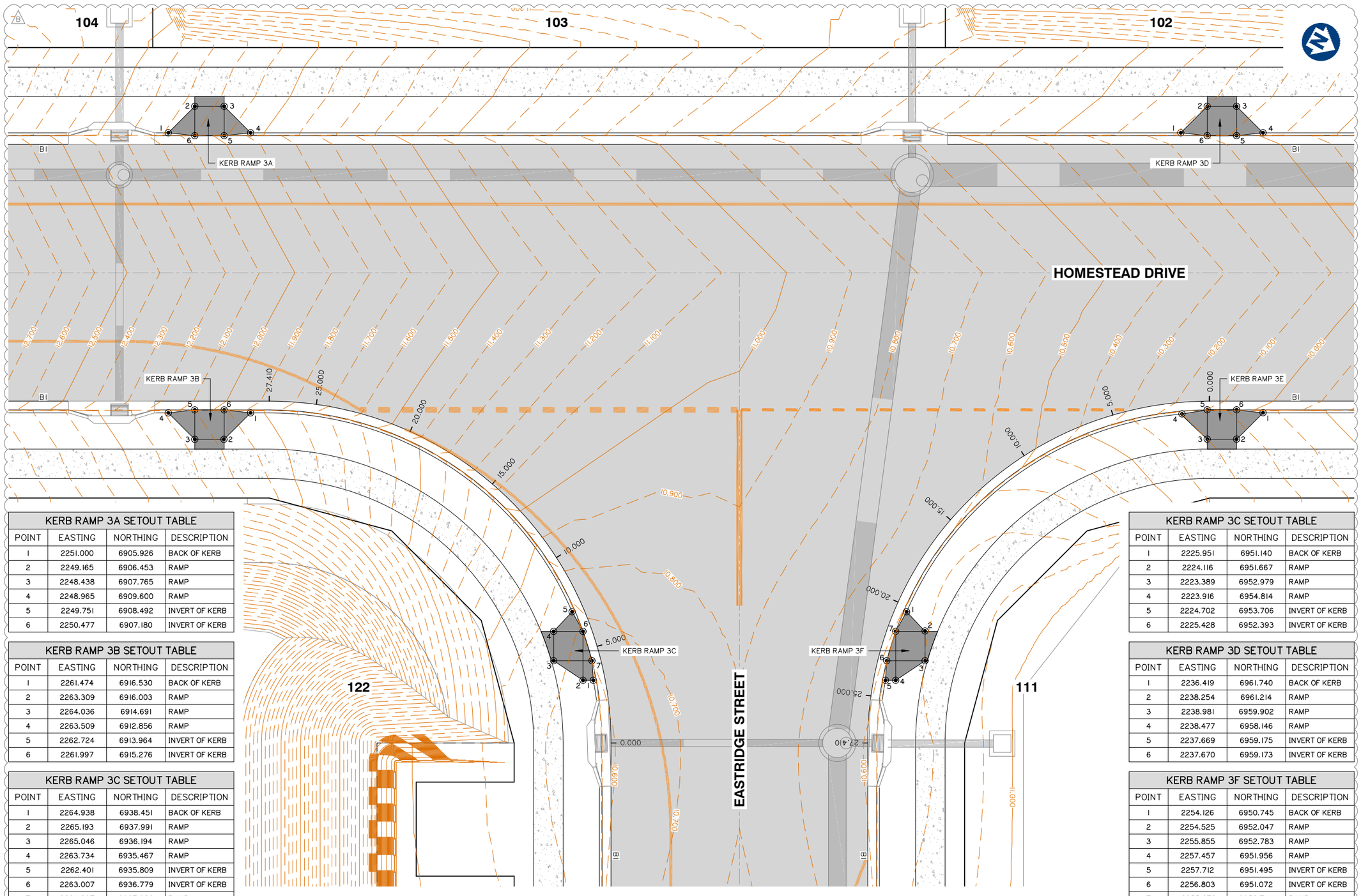
SCALE IN METRES
0 3 6 9 12 15
1:150 (FULL SIZE A1)
1:300 (HALF SIZE A3)

Scale at A1:	1:150
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 492
Rev. No: C

ROAD INTERSECTION DETAILS SHEET 3 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 490-497.dwg



KERB RAMP 3A SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2251.000	6905.926	BACK OF KERB
2	2249.165	6906.453	RAMP
3	2248.438	6907.765	RAMP
4	2248.965	6909.600	RAMP
5	2249.751	6908.492	INVERT OF KERB
6	2250.477	6907.180	INVERT OF KERB

KERB RAMP 3B SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2261.474	6916.530	BACK OF KERB
2	2263.309	6916.003	RAMP
3	2264.036	6914.691	RAMP
4	2263.509	6912.856	RAMP
5	2262.724	6913.964	INVERT OF KERB
6	2261.997	6915.276	INVERT OF KERB

KERB RAMP 3C SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2264.938	6938.451	BACK OF KERB
2	2265.193	6937.991	RAMP
3	2265.046	6936.194	RAMP
4	2263.734	6935.467	RAMP
5	2262.401	6935.809	INVERT OF KERB
6	2263.007	6936.779	INVERT OF KERB
7	2264.097	6937.906	RAMP

KERB RAMP 3C SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2225.951	6951.140	BACK OF KERB
2	2224.116	6951.667	RAMP
3	2223.389	6952.979	RAMP
4	2223.916	6954.814	RAMP
5	2224.702	6953.706	INVERT OF KERB
6	2225.428	6952.393	INVERT OF KERB

KERB RAMP 3D SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2236.419	6961.740	BACK OF KERB
2	2238.254	6961.214	RAMP
3	2238.981	6959.902	RAMP
4	2238.477	6958.146	RAMP
5	2237.669	6959.175	INVERT OF KERB
6	2237.670	6959.173	INVERT OF KERB

KERB RAMP 3F SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2254.126	6950.745	BACK OF KERB
2	2254.525	6952.047	RAMP
3	2255.855	6952.783	RAMP
4	2257.457	6951.956	RAMP
5	2257.712	6951.495	INVERT OF KERB
6	2256.803	6951.072	INVERT OF KERB
7	2255.270	6950.744	RAMP

EASTRIDGE STREET TO HOMESTEAD DRIVE KERB RETURN SETOUT TABLE

POINT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2267.295	6940.793	10.594	241°00'47.00"			
	5.000	2263.326	6937.780	10.657	224°35'45.34"			
	10.000	2260.370	6933.769	10.836	208°10'43.67"			
IP 2	13.705	2252.031	6932.336	11.044		R = -17.450	27.410	89°59'59.97"
	15.000	2258.668	6929.086	11.128	191°45'42.01"			
	20.000	2258.359	6924.112	11.440	175°20'40.35"			
	25.000	2259.468	6919.254	11.737	158°55'38.68"			
IP 3	27.410	2260.487	6917.072	11.875	151°00'47.03"			

HOMESTEAD DRIVE TO EASTRIDGE STREET KERB RETURN SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2237.226	6959.059	10.131	151°00'47.03"			
	5.000	2240.238	6955.090	10.330	134°35'45.37"			
	10.000	2244.250	6952.134	10.525	118°10'43.71"			
IP 2	13.705	2245.682	6943.795	10.619		R = -17.450	27.410	90°00'00.03"
	15.000	2248.933	6950.432	10.637	101°45'42.04"			
	20.000	2253.906	6950.123	10.638	85°20'40.38"			
	25.000	2258.764	6951.233	10.608	68°55'38.72"			
IP 3	27.410	2260.946	6952.252	10.594	61°00'47.00"			

ROAD INTERSECTION DETAILS SHEET 4 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 490-497.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD INTERSECTION DETAILS SHEET 4 OF 8

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

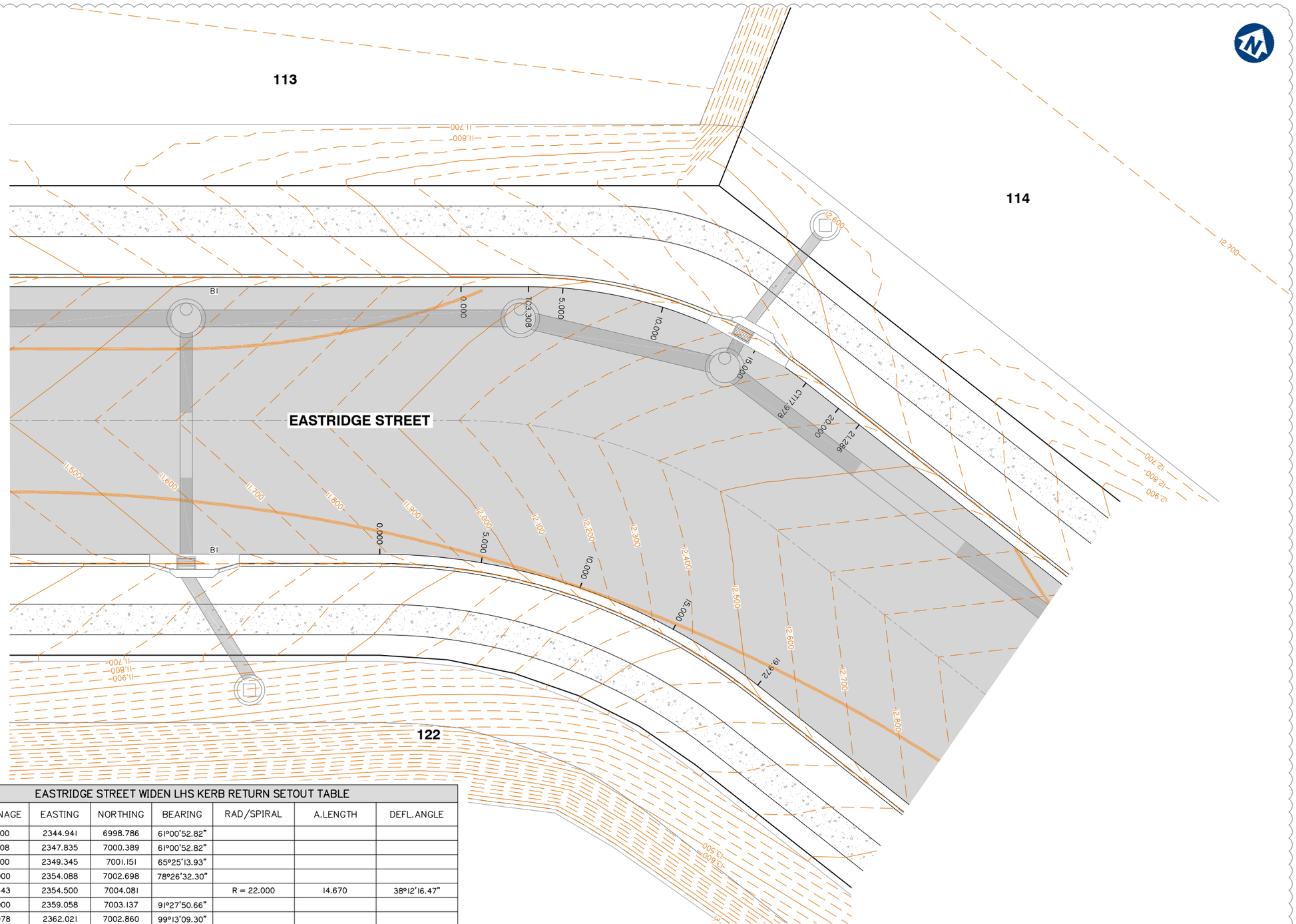
0 2 4 6 8 10

1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 493

Rev. No: C



EASTRIDGE STREET WIDEN LHS KERB RETURN SETOUT TABLE

POINT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2344.941	6998.786	61°00'52.82"			
TC	3.308	2347.835	7000.389	61°00'52.82"			
	5.000	2349.345	7001.151	65°25'13.93"			
	10.000	2354.088	7002.698	78°26'32.30"			
IP 2	10.643	2354.500	7004.081		R = 22.000	14.670	38°12'16.47"
	15.000	2359.058	7003.137	91°27'50.66"			
CT	17.978	2362.021	7002.860	99°13'09.30"			
	20.000	2364.017	7002.536	99°13'09.30"			
IP 3	21.286	2365.286	7002.330	99°13'09.30"			

EASTRIDGE STREET WIDEN RHS KERB RETURN SETOUT TABLE

POINT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2347.806	6985.396	61°00'47.00"			
	5.000	2352.361	6987.444	70°34'41.86"			
IP 2	9.986	2356.879	6990.424		R = 29.950	19.972	38°12'28.37"
	10.000	2357.193	6988.706	80°08'36.72"			
	15.000	2362.167	6989.148	89°42'31.58"			
IP 3	19.972	2367.119	6988.761	99°13'15.37"			

ROAD INTERSECTION DETAILS SHEET 5 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 490-497.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: B

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD INTERSECTION DETAILS SHEET 5 OF 8

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

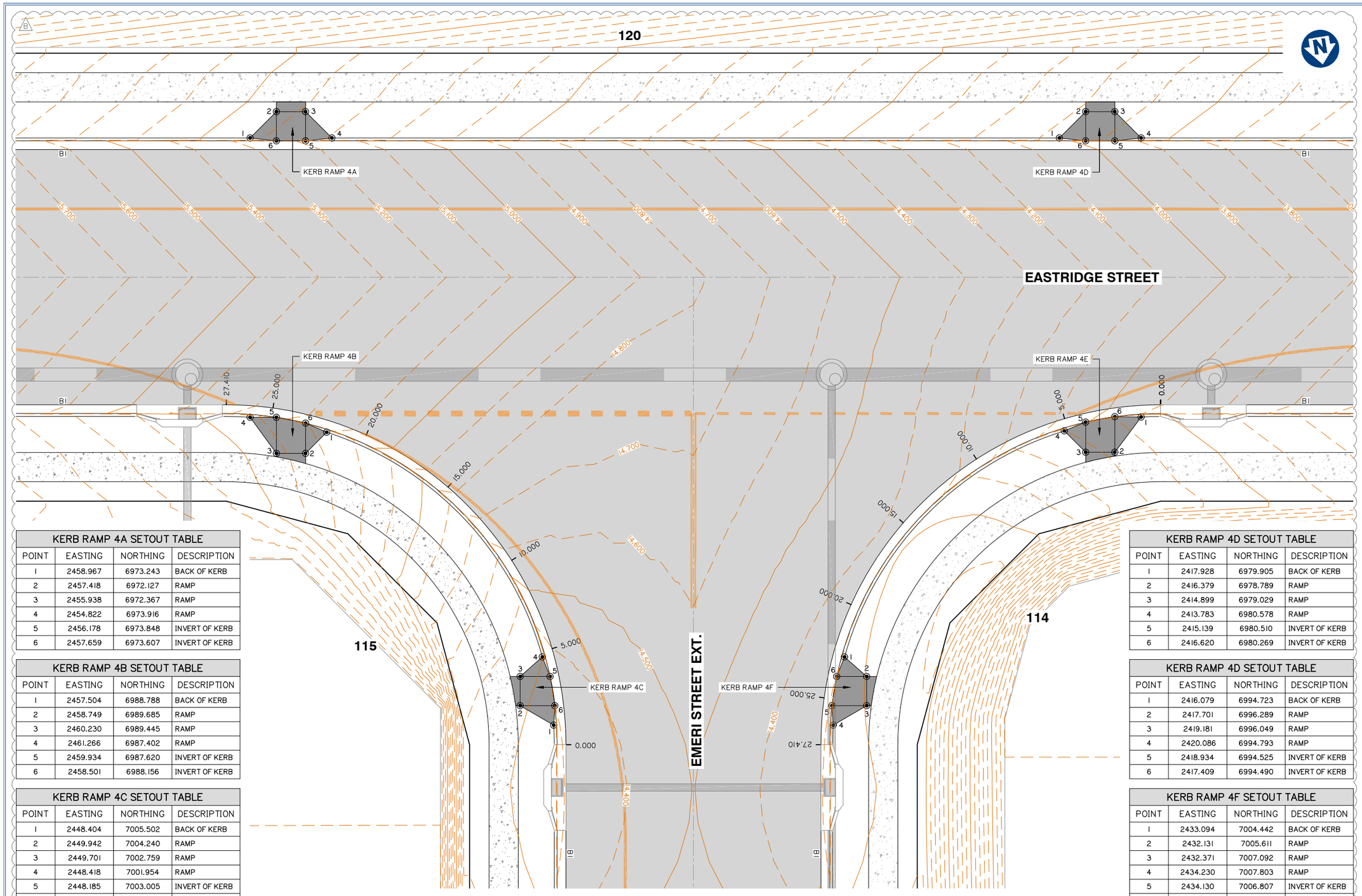
0 2 4 6 8 10

1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 494

Rev. No: B



KERB RAMP 4A SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2458.967	6973.243	BACK OF KERB
2	2457.418	6972.127	RAMP
3	2455.938	6972.367	RAMP
4	2454.822	6973.916	RAMP
5	2456.178	6973.848	INVERT OF KERB
6	2457.659	6973.607	INVERT OF KERB

KERB RAMP 4B SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2457.504	6988.788	BACK OF KERB
2	2458.749	6989.685	RAMP
3	2460.230	6989.445	RAMP
4	2461.266	6987.402	RAMP
5	2459.934	6987.620	INVERT OF KERB
6	2458.501	6988.156	INVERT OF KERB

KERB RAMP 4C SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2448.404	7005.502	BACK OF KERB
2	2449.942	7004.240	RAMP
3	2449.701	7002.759	RAMP
4	2448.418	7001.954	RAMP
5	2448.185	7003.005	INVERT OF KERB
6	2448.183	7004.525	INVERT OF KERB

KERB RAMP 4D SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2417.928	6979.905	BACK OF KERB
2	2416.379	6978.789	RAMP
3	2414.899	6979.029	RAMP
4	2413.783	6980.578	RAMP
5	2415.139	6980.510	INVERT OF KERB
6	2416.620	6980.269	INVERT OF KERB

KERB RAMP 4D SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2416.079	6994.723	BACK OF KERB
2	2417.701	6996.289	RAMP
3	2419.181	6996.049	RAMP
4	2420.086	6994.793	RAMP
5	2418.934	6994.525	INVERT OF KERB
6	2417.409	6994.490	INVERT OF KERB

KERB RAMP 4F SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2433.094	7004.442	BACK OF KERB
2	2432.131	7005.611	RAMP
3	2432.371	7007.092	RAMP
4	2434.230	7007.803	RAMP
5	2434.130	7006.807	INVERT OF KERB
6	2433.647	7005.365	INVERT OF KERB

EMERI STREET EXTENSION TO EASTRIDGE STREET KERB RETURN SETOUT TABLE								
POINT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2447.942	7006.590	14.316	189°13'15.46"			
	5.000	2447.854	7001.608	14.399	172°48'13.80"			
	10.000	2449.178	6996.804	14.570	156°23'12.13"			
IP 2	13.705	2445.146	6989.366	14.754		R = -17.450	27.410	90°00'00.09"
	15.000	2451.805	6992.570	14.825	139°58'10.47"			
	20.000	2455.522	6989.252	15.070	123°33'08.80"			
	25.000	2460.026	6987.119	15.270	107°08'07.14"			
IP 3	27.410	2462.371	6986.570	15.349	99°13'15.37"			

EASTRIDGE STREET TO EMERI STREET EXTENSION KERB RETURN SETOUT TABLE								
POINT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2414.991	6994.261	13.904	99°13'15.37"			
	5.000	2419.973	6994.173	14.084	82°48'13.70"			
	10.000	2424.777	6995.497	14.264	66°23'12.04"			
IP 2	13.705	2432.215	6991.465	14.361		R = -17.450	27.410	89°59'59.91"
	15.000	2429.011	6998.124	14.376	49°58'10.38"			
	20.000	2432.330	7001.841	14.360	33°33'08.71"			
	25.000	2434.462	7006.344	14.330	17°08'07.05"			
IP 3	27.410	2435.012	7008.690	14.316	9°13'15.46"			

ROAD INTERSECTION DETAILS SHEET 6 OF 8

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD INTERSECTION DETAILS SHEET 6 OF 8

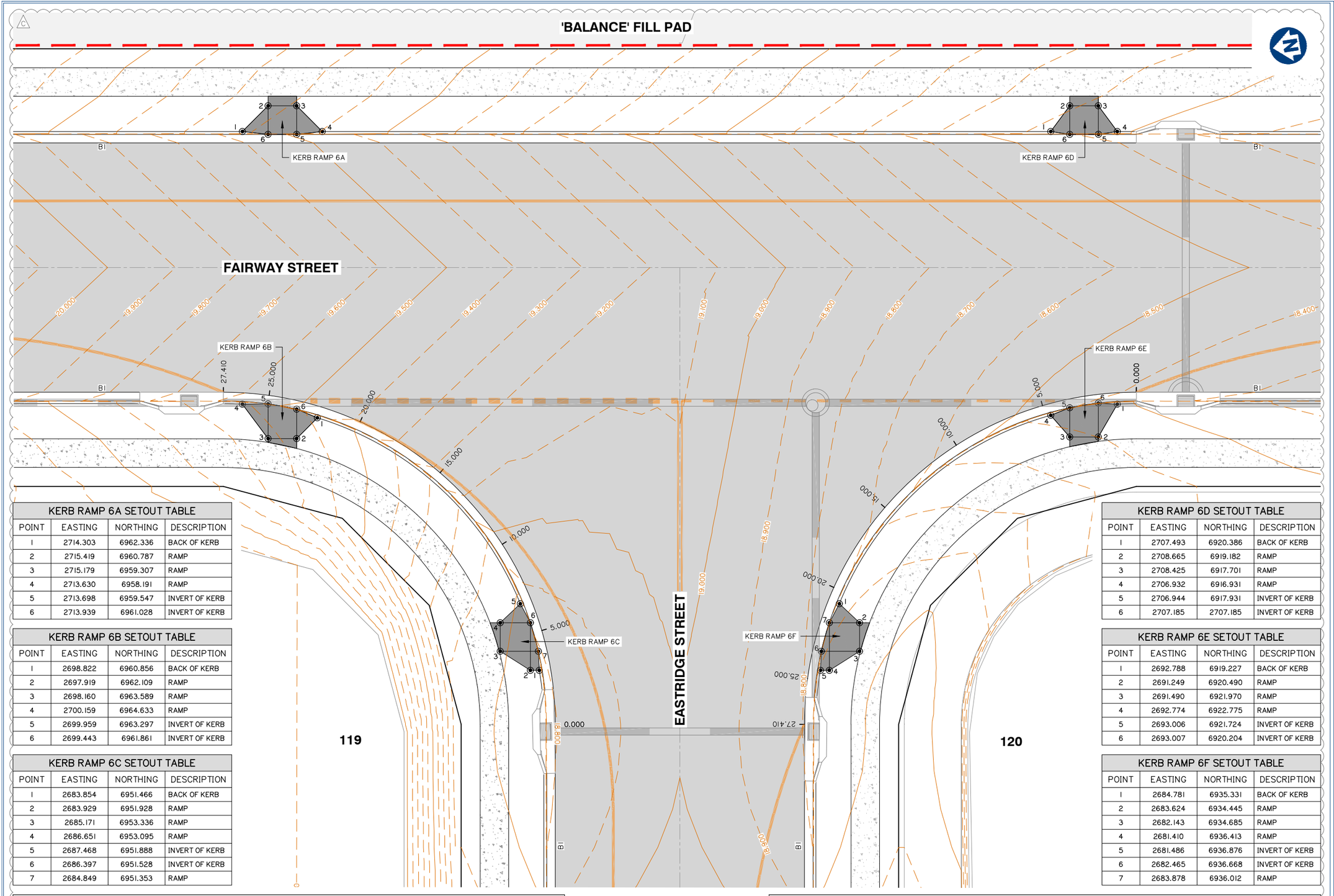
Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 2 4 6 8 10
1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 495
Rev. No: B

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 490-497.dwg



KERB RAMP 6A SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2714.303	6962.336	BACK OF KERB
2	2715.419	6960.787	RAMP
3	2715.179	6959.307	RAMP
4	2713.630	6958.191	RAMP
5	2713.698	6959.547	INVERT OF KERB
6	2713.939	6961.028	INVERT OF KERB

KERB RAMP 6B SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2698.822	6960.856	BACK OF KERB
2	2697.919	6962.109	RAMP
3	2698.160	6963.589	RAMP
4	2700.159	6964.633	RAMP
5	2699.959	6963.297	INVERT OF KERB
6	2699.443	6961.861	INVERT OF KERB

KERB RAMP 6C SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2683.854	6951.466	BACK OF KERB
2	2683.929	6951.928	RAMP
3	2685.171	6953.336	RAMP
4	2686.651	6953.095	RAMP
5	2687.468	6951.888	INVERT OF KERB
6	2686.397	6951.528	INVERT OF KERB
7	2684.849	6951.353	RAMP

KERB RAMP 6D SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2707.493	6920.386	BACK OF KERB
2	2708.665	6919.182	RAMP
3	2708.425	6917.701	RAMP
4	2706.932	6916.931	RAMP
5	2706.944	6917.931	INVERT OF KERB
6	2707.185	2707.185	INVERT OF KERB

KERB RAMP 6E SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2692.788	6919.227	BACK OF KERB
2	2691.249	6920.490	RAMP
3	2691.490	6921.970	RAMP
4	2692.774	6922.775	RAMP
5	2693.006	6921.724	INVERT OF KERB
6	2693.007	6920.204	INVERT OF KERB

KERB RAMP 6F SETOUT TABLE

POINT	EASTING	NORTHING	DESCRIPTION
1	2684.781	6935.331	BACK OF KERB
2	2683.624	6934.445	RAMP
3	2682.143	6934.685	RAMP
4	2681.410	6936.413	RAMP
5	2681.486	6936.876	INVERT OF KERB
6	2682.465	6936.668	INVERT OF KERB
7	2683.878	6936.012	RAMP

EASTRIDGE STREET TO FAIRWAY STREET KERB RETURN TABLE

POINT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2680.920	6951.090	18.797	99°13'15.37"			
	5.000	2685.902	6951.002	18.842	82°48'13.70"			
	10.000	2690.706	6952.326	18.971	66°23'12.04"			
IP 2	13.705	2698.144	6948.294	19.121		R = -17.450	27.410	89°59'59.91"
	15.000	2694.940	6954.953	19.180	49°58'10.38"			
	20.000	2698.258	6958.670	19.388	33°33'08.71"			
	25.000	2700.391	6963.174	19.561	17°08'07.05"			
IP 3	27.410	2700.940	6965.519	19.633	9°13'15.46"			

FAIRWAY STREET TO EASTRIDGE STREET KERB RETURN TABLE

POINT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2693.249	6918.139	18.388	9°13'15.46"			
	5.000	2693.337	6923.121	18.472	352°48'13.80"			
	10.000	2692.013	6927.925	18.568	336°23'12.13"			
IP 2	13.705	2696.045	6935.364	18.648		R = -17.450	27.410	90°00'00.09"
	15.000	2689.386	6932.159	18.676	319°58'10.47"			
	20.000	2685.669	6935.478	18.756	303°33'08.80"			
	25.000	2681.166	6937.611	18.794	287°08'07.14"			
IP 3	27.410	2678.821	6938.160	18.797	279°13'15.37"			

ROAD INTERSECTION DETAILS SHEET 7 OF 8

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 490-497.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD INTERSECTION DETAILS SHEET 7 OF 8

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

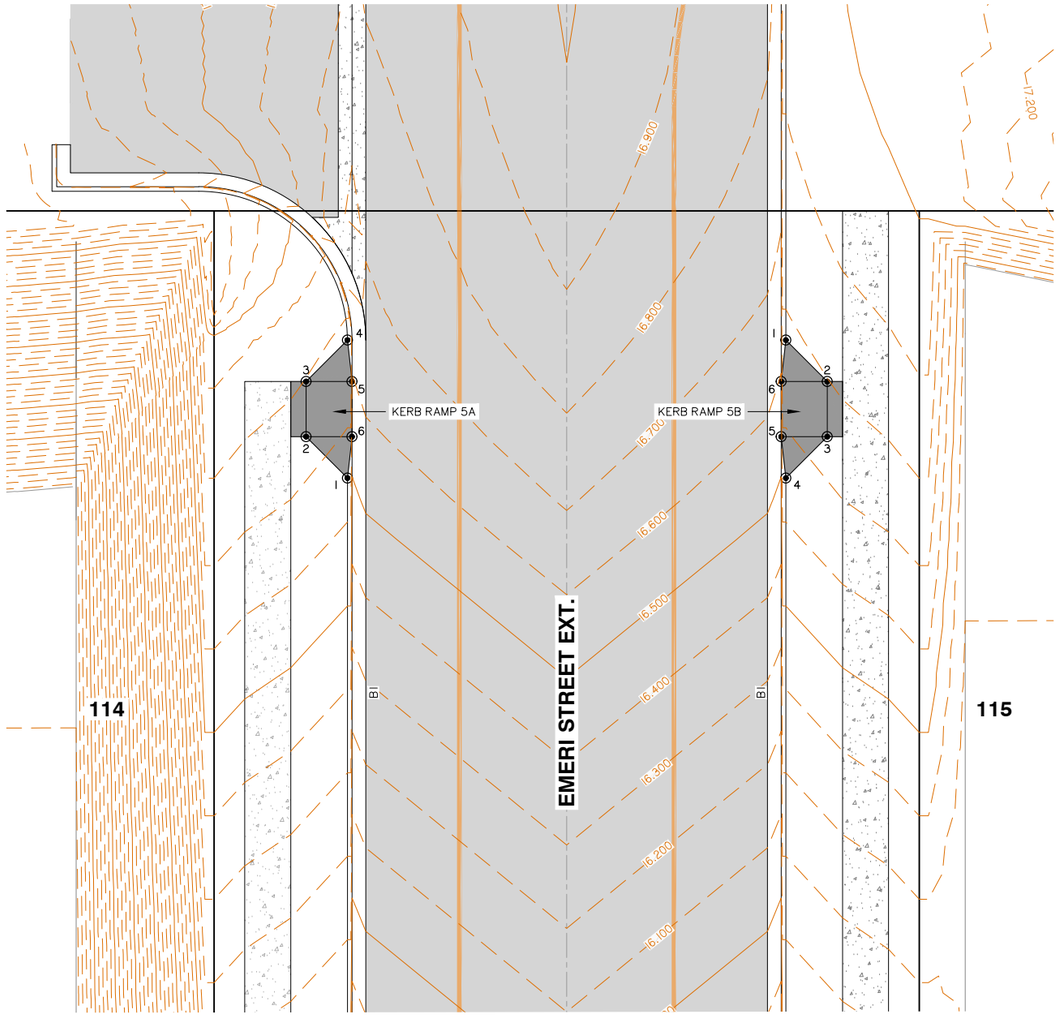
0 2 4 6 8 10

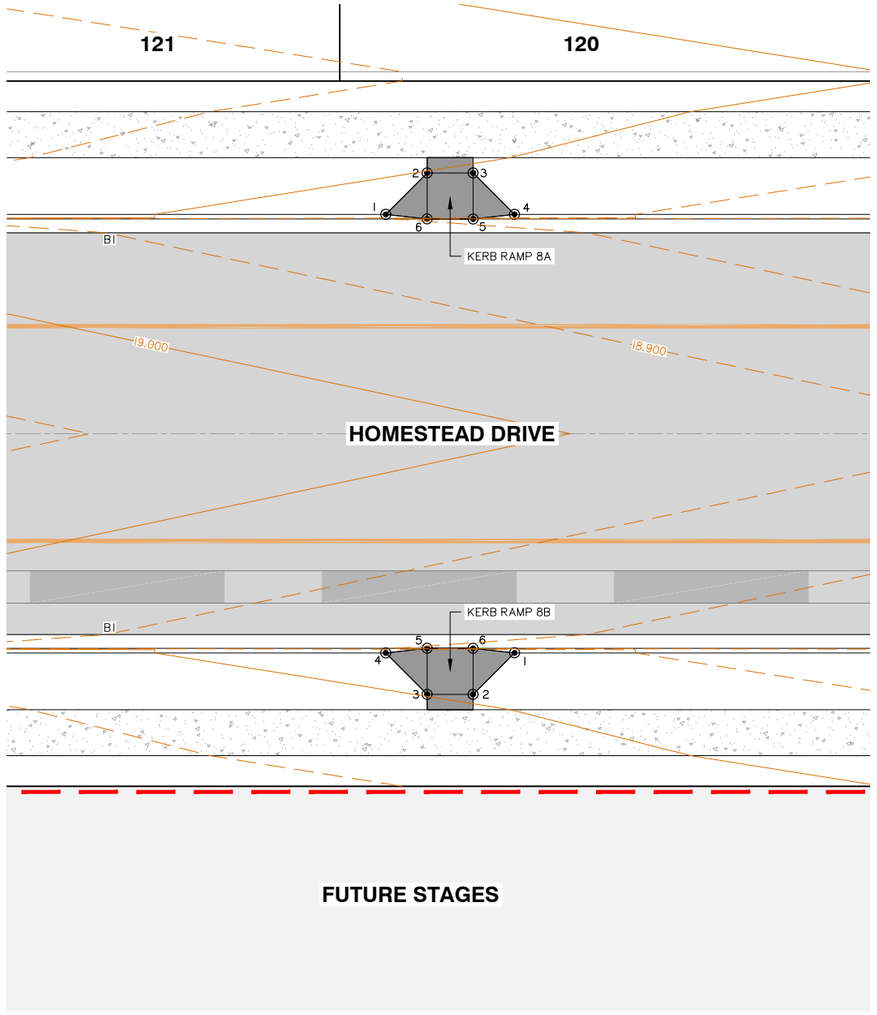
1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 496

Rev. No: C





KERB RAMP 5A SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2445.442	7076.685	BACK OF KERB
2	2444.326	7078.234	RAMP
3	2444.614	7080.011	RAMP
4	2446.163	7081.127	RAMP
5	2446.095	7079.770	INVERT OF KERB
6	2445.806	7077.992	INVERT OF KERB

KERB RAMP 5B SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2460.278	7078.835	BACK OF KERB
2	2461.395	7077.287	RAMP
3	2461.106	7075.510	RAMP
4	2459.557	7074.394	RAMP
5	2459.625	7075.749	INVERT OF KERB
6	2459.914	7077.527	INVERT OF KERB

KERB RAMP 8A SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2525.619	6726.261	BACK OF KERB
2	2526.146	6728.096	RAMP
3	2527.458	6728.823	RAMP
4	2529.293	6728.296	RAMP
5	2528.185	6727.511	INVERT OF KERB
6	2526.873	6726.784	INVERT OF KERB

KERB RAMP 8B SETOUT TABLE			
POINT	EASTING	NORTHING	DESCRIPTION
1	2536.224	6715.791	BACK OF KERB
2	2535.697	6713.952	RAMP
3	2534.385	6713.220	RAMP
4	2532.549	6713.752	RAMP
5	2533.658	6714.538	INVERT OF KERB
6	2534.970	6715.264	INVERT OF KERB

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: B
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

ROAD INTERSECTION DETAILS SHEET 8 OF 8

Issue	Date	Description	DRN	CHK
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 2 4 6 8 10

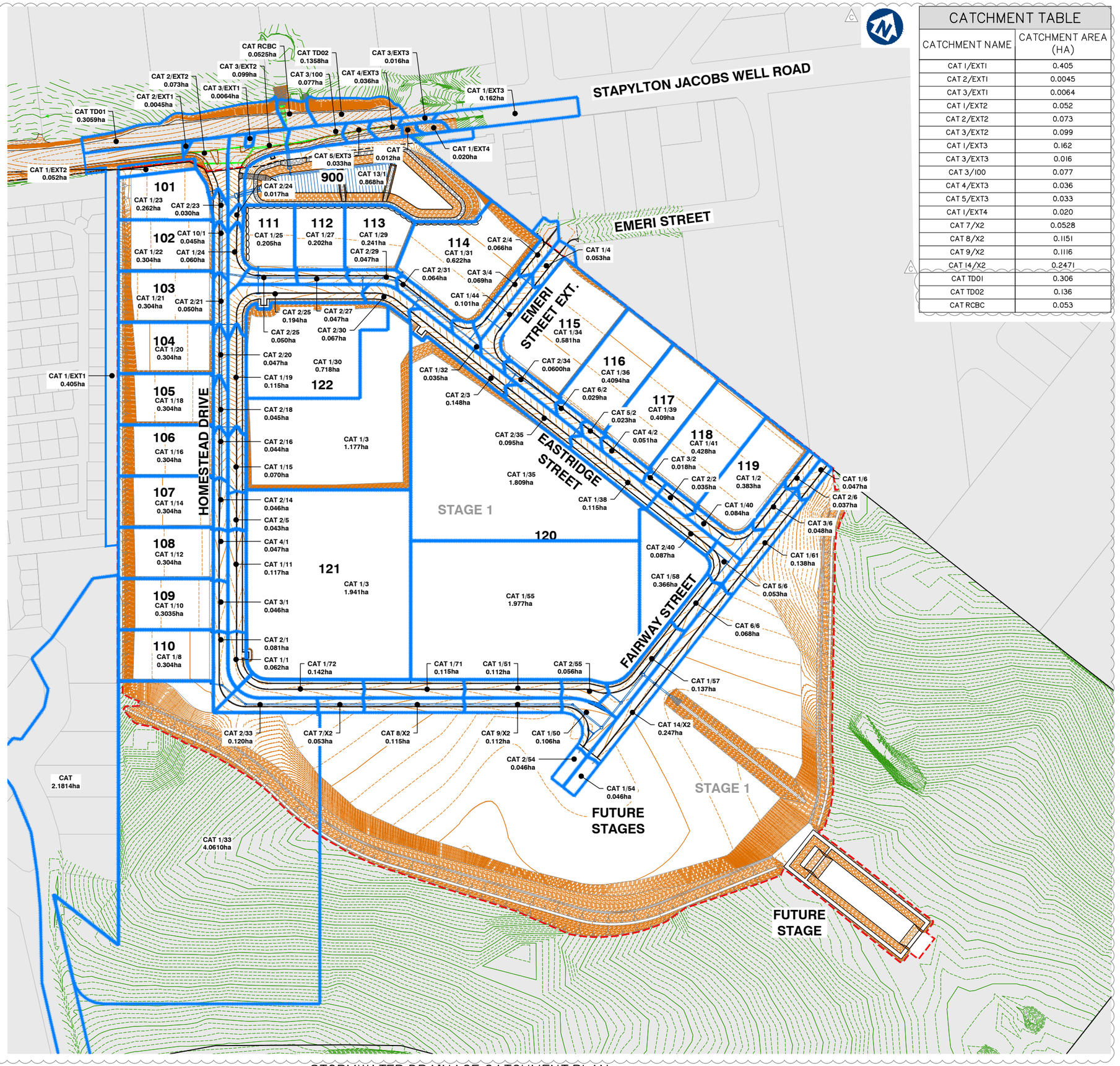
1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	01-05-2020

Drawing No: 5941 ENG OPW1 497
Rev. No: B

CATCHMENT TABLE

CATCHMENT NAME	CATCHMENT AREA (HA)
CAT 1/1	0.062
CAT 2/1	0.081
CAT 3/1	0.046
CAT 4/1	0.047
CAT 7/1	0.045
CAT 8/1	0.047
CAT 10/1	0.046
CAT 13/1	0.868
CAT 1/2	0.383
CAT 2/2	0.035
CAT 3/2	0.035
CAT 4/2	0.051
CAT 5/2	0.023
CAT 6/2	0.029
CAT 10/2	0.035
CAT 11/2	0.064
CAT 1/3	1.177
CAT 2/3	0.148
CAT 2/4	0.066
CAT 3/4	0.069
CAT 2/5	0.043
CAT 1/6	0.047
CAT 2/6	0.037
CAT 3/6	0.048
CAT 5/6	0.053
CAT 6/6	0.068
CAT 1/8	0.303
CAT 1/10	0.303
CAT 1/11	0.117
CAT 1/12	0.304
CAT 1/14	0.304
CAT 2/14	0.046
CAT 1/15	0.070
CAT 1/16	0.304
CAT 2/16	0.044
CAT 1/18	0.304
CAT 1/19	0.115
CAT 1/20	0.304
CAT 1/21	0.304
CAT 2/21	0.050
CAT 1/23	0.262
CAT 2/23	0.030
CAT 1/24	0.060
CAT 2/24	0.017
CAT 1/25	0.205
CAT 2/25	0.050
CAT 1/26	0.194
CAT 1/27	0.202
CAT 2/27	0.047
CAT 1/29	0.0241
CAT 2/29	0.047
CAT 1/30	0.720
CAT 2/30	0.062
CAT 1/31	0.622
CAT 2/31	0.064
CAT 1/32	0.035
CAT 1/33	4.061
CAT 1/35	1.809
CAT 2/35	0.095
CAT 1/38	0.115
CAT 1/40	0.084
CAT 2/40	0.087
CAT 1/44	0.101
CAT 1/50	0.112
CAT 1/51	0.106
CAT 1/54	0.046
CAT 2/54	0.046
CAT 1/55	1.977
CAT 1/57	0.137
CAT 1/58	0.366
CAT 1/61	0.138
CAT 1/71	0.115
CAT 1/72	0.142



CATCHMENT TABLE

CATCHMENT NAME	CATCHMENT AREA (HA)
CAT 1/EXTI	0.405
CAT 2/EXTI	0.0045
CAT 3/EXTI	0.0064
CAT 1/EXT2	0.052
CAT 2/EXT2	0.073
CAT 3/EXT2	0.099
CAT 1/EXT3	0.162
CAT 3/EXT3	0.016
CAT 3/100	0.077
CAT 4/EXT3	0.036
CAT 5/EXT3	0.033
CAT 1/EXT4	0.020
CAT 7/X2	0.0528
CAT 8/X2	0.1151
CAT 9/X2	0.1116
CAT 14/X2	0.2471
CAT TD01	0.306
CAT TD02	0.136
CAT RCBC	0.053

STORMWATER DRAINAGE CATCHMENT PLAN

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 500.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE CATCHMENT PLAN

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 30 60 90 120 150

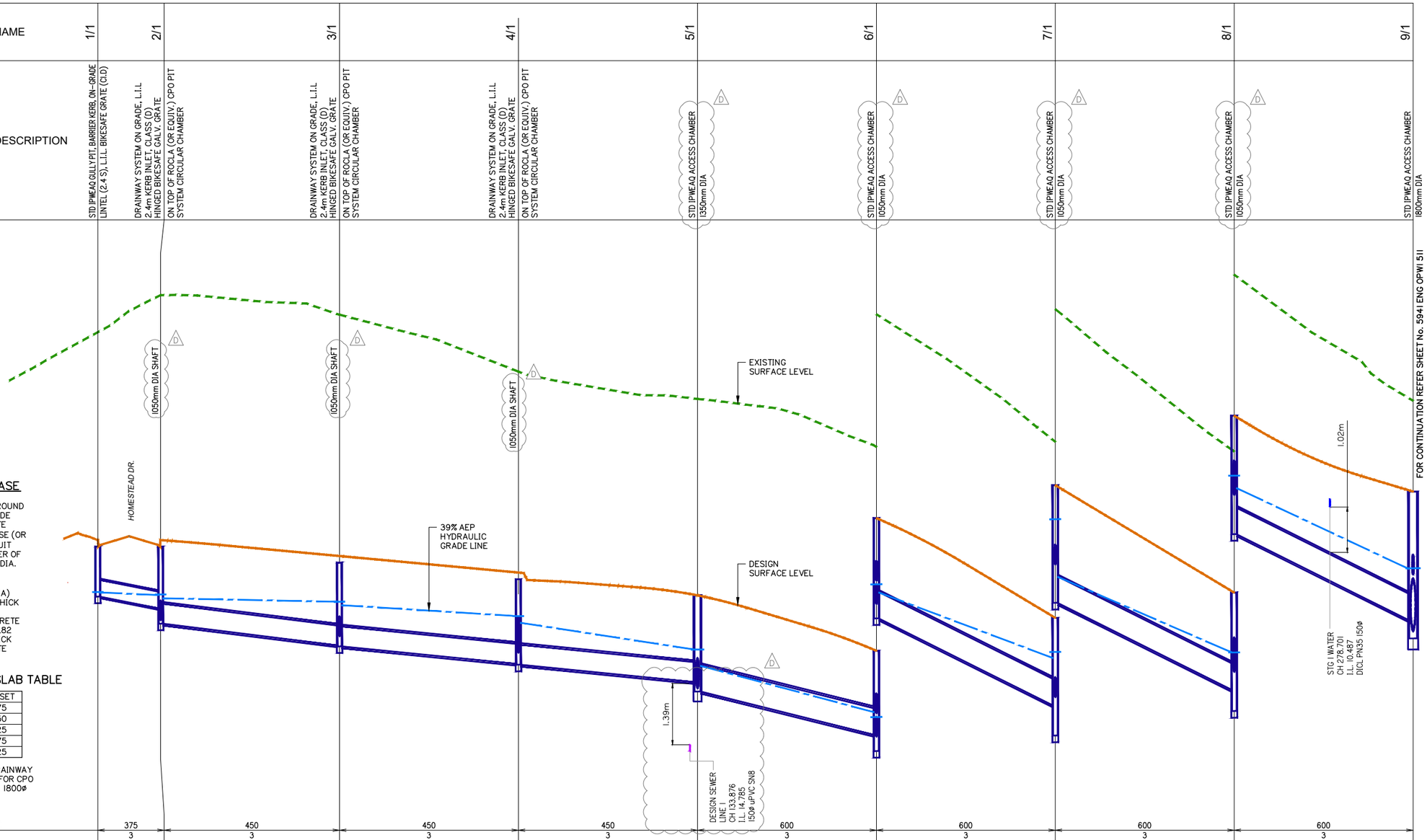
1:1500 (FULL SIZE A1)
1:3000 (HALF SIZE A3)

Scale at A1:	1:1500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 500

Rev. No: C

STRUCTURE NAME	1/1	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1
STRUCTURE DESCRIPTION	STD IPWEAQ GULLY PIT, BARRIER KERB, ON-GRADE LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (GI.D)	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEAQ ACCESS CHAMBER 1350mm DIA	STD IPWEAQ ACCESS CHAMBER 1050mm DIA	STD IPWEAQ ACCESS CHAMBER 1050mm DIA	STD IPWEAQ ACCESS CHAMBER 1050mm DIA	STD IPWEAQ ACCESS CHAMBER 1800mm DIA



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

PIPE SIZE (mm)	375	450	450	450	600	600	600	600	
PIPE CLASS	3	3	3	3	3	3	3	3	
PIPE GRADE (%)	2.00%	1.25%	1.00%	1.00%	2.50%	5.00%	5.00%	5.00%	
PIPE SLOPE (1 in X)	50.0	80.0	100.0	100.0	40.0	20.0	20.0	20.0	
PIPE FLOW (cumecs)	0.018	0.128	0.226	0.354	1.004	1.115	1.208	1.331	
CAPACITY FLOW (cumecs)	0.248	0.319	0.285	0.285	0.971	1.374	1.374	1.374	
FULL PIPE VELOCITY (m/s)	0.16	0.80	1.42	2.22	3.55	3.94	4.27	4.71	
NORMAL DEPTH VELOCITY (m/s)	1.30	1.89	1.99	2.22	3.90	5.41	5.48	5.53	
DATUM RL	10.000					7.000	4.000	0.000	
HGL ELEVATION (39.35% AEP)	18.366	18.377 / 18.317 / 18.333 / 18.245	18.166	18.089 / 17.842	17.691 / 17.085	16.717 / 15.668	15.560 / 15.378 / 13.892	14.451 / 12.731 / 11.019	10.738 / 8.904
DEPTH TO INVERT	1.128	1.395 / 1.739	1.872	1.892 / 1.914	1.934 / 1.963	2.175 / 1.902	2.266 / 1.982	2.661 / 2.204	2.679 / 2.914
INVERT LEVEL OF DRAIN	18.283	18.016 / 17.672	17.178	17.158 / 16.762	16.742 / 16.349	16.137 / 15.155	14.791 / 12.820	12.141 / 10.170	9.695 / 7.743
DESIGN (& EXISTING) SURFACE LEVEL	19.561 (24.260)	19.561 (25.098)	19.200 (24.657)	18.826 (23.370) / 18.312 (22.751)	17.057 (21.666)	14.802 (18.783)	12.374 (15.563)	10.658 (12.712)	
SETOUT COORDINATES (EASTING & NORTHING)	2382.337E 6698.273N	2369.910E 6691.388N	2350.301E 6726.784N	2330.691E 6762.180N	2311.081E 6797.576N	2291.471E 6832.972N	2271.861E 6868.368N	2252.252E 6903.764N	2234.481E 6940.180N
CHAINAGE	0.000	13.324 / 14.206	39.535 / 54.671	39.535 / 95.136	39.379 / 135.656	39.265 / 176.121	39.415 / 216.586	39.415 / 257.052	39.040 / 297.517

LINE 1

13.324

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

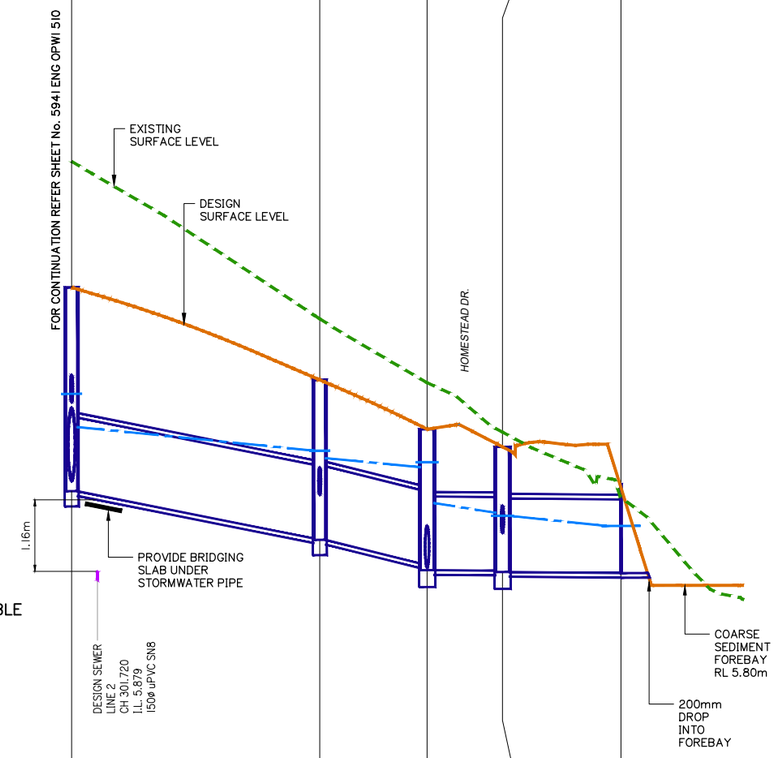
VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 510

Rev. No: D

STRUCTURE NAME	9/1	10/1	11/1	12/1	13/1
STRUCTURE DESCRIPTION	STD JPWEAQ ACCESS CHAMBER 1800mm DIA	STD JPWEAQ ACCESS CHAMBER 1800mm DIA	STD JPWEAQ ACCESS CHAMBER 2100mm DIA	OVERSIZE CHAMBER CAST-INSITU 3566x1800mm – REFER DETAIL PLAN	1200mm DIA DUAL OUTLET HEADWALL DISCHARGE TO COARSE SEDIMENT FOREBAY REFER DETAIL PLAN



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

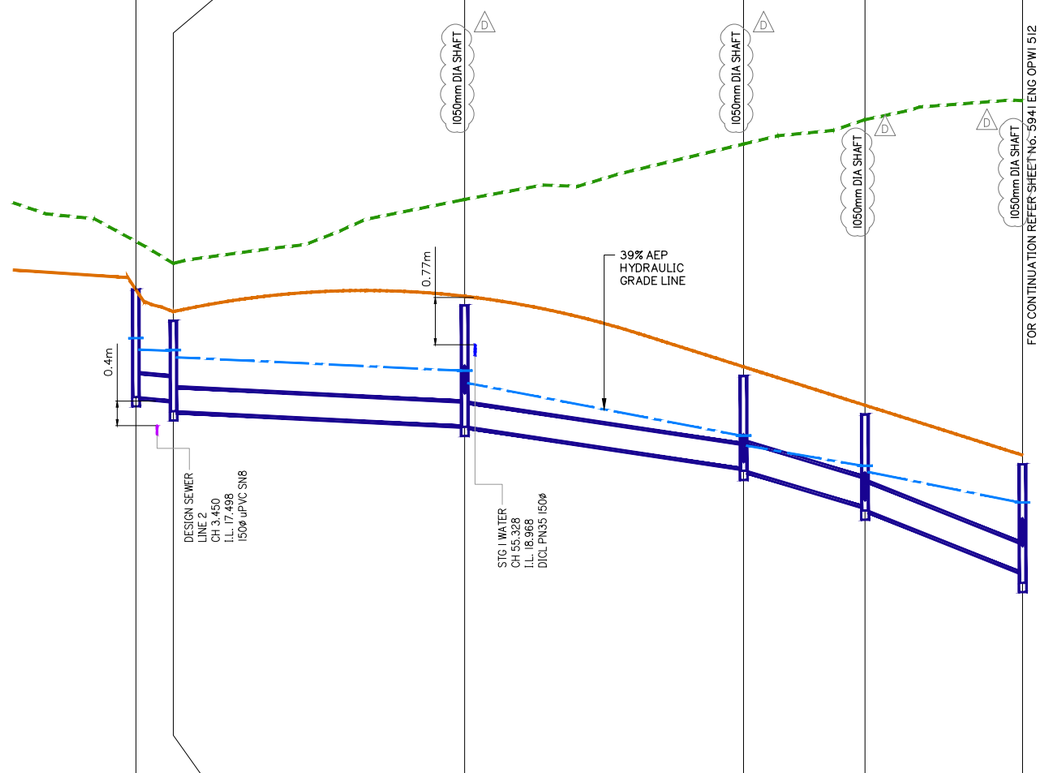
CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

PIPE SIZE (mm)		1200	1200	1200	(2x)1200	
PIPE CLASS		3	3	3	3	
PIPE GRADE (%)		2.00%	2.50%	0.10%	0.10%	
PIPE SLOPE (1 in X)		50.0	40.0	1000.0	1000.0	
PIPE FLOW (cumecs)		3.737	3.816	3.891	3.905	
CAPACITY FLOW (cumecs)		5.516	6.167	1.233	2.467	
FULL PIPE VELOCITY (m/s)		3.30	3.37	3.44	1.73	
NORMAL DEPTH VELOCITY (m/s)		5.24	5.74	3.44	1.73	
DATUM RL		-1.000				
HGL ELEVATION (39.35% AEP)	8.904 8.923	8.382	7.995 7.875	7.726 7.808 7.144	6.982	6.935 6.769
DEPTH TO INVERT	2.914	3.321	2.587 2.607	2.191 2.297	2.020 2.040	1.450 1.450
INVERT LEVEL OF DRAIN	7.743	7.336	6.563 6.543	6.154 6.048	6.038 6.018	6.000 6.000
DESIGN (& EXISTING) SURFACE LEVEL	10.658 (12.712)		9.150 (10.147)	8.346 (9.103)	8.059 (8.298)	7.391 (7.238)
SETOUT COORDINATES (EASTING & NORTHING)	2234.481E 6940.180N		2214.872E 6975.576N	2206.383E 6990.898N	2215.148E 6999.517N	2228.933E 7013.070N
CHAINAGE	297.517	38.665	337.982	15.567	355.499 10.192 367.791	18.157 387.123

LINE 1



PIPE SIZE (mm)		375	375	375	450	450	
PIPE CLASS		3	3	3	3	3	
PIPE GRADE (%)		0.97%	0.50%	1.50%	3.00%	4.00%	
PIPE SLOPE (1 in X)		103.0	200.0	66.7	33.3	25.0	
PIPE FLOW (cumecs)		0.110	0.120	0.243	0.369	0.405	
CAPACITY FLOW (cumecs)		0.173	0.124	0.215	0.494	0.570	
FULL PIPE VELOCITY (m/s)		1.00	1.09	2.20	2.32	2.55	
NORMAL DEPTH VELOCITY (m/s)		1.66	1.28	2.20	3.41	3.89	
DATUM RL		8.000					
HGL ELEVATION (39.35% AEP)	19.075	18.888 18.868 18.838	18.762	18.545 18.343	17.486 17.322	16.994 16.895	16.396
DEPTH TO INVERT	1.752	1.295	1.474	1.958 1.978	1.496 1.546	1.486 1.567	1.744
INVERT LEVEL OF DRAIN	18.113	18.062	17.883	17.650 17.630	16.962 16.912	16.345 16.264	15.274
DESIGN (& EXISTING) SURFACE LEVEL	19.865 (20.652)	19.507 (20.294)		19.758 (21.336)	18.608 (22.240)	17.981 (22.636)	17.168 (22.944)
SETOUT COORDINATES (EASTING & NORTHING)	2653.594E 6962.264N	2652.617E 6956.245N		2605.700E 6963.862N	2560.794E 6971.152N	2541.244E 6974.326N	2515.888E 6978.442N
CHAINAGE	0.000	5.230 6.097	46.601	53.628	44.564	99.122 18.876	118.929 24.757 144.616

LINE 2

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 18

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

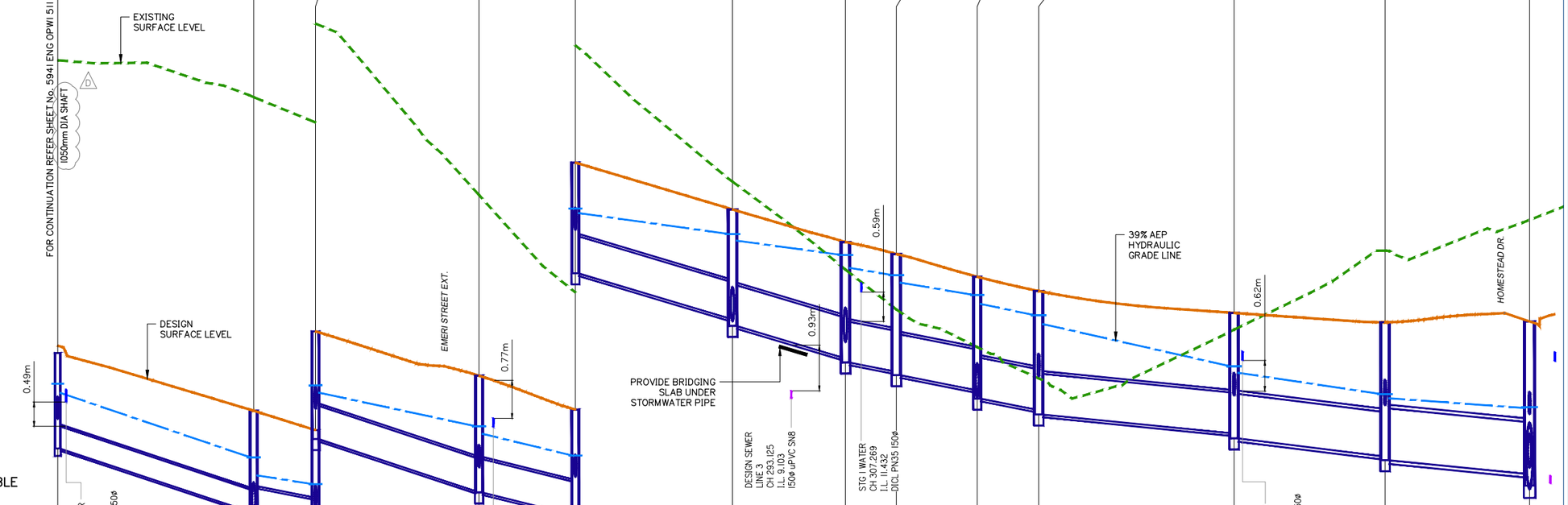
VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 511
Rev. No: D

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

STRUCTURE NAME	6/2	7/2	8/2	9/2	10/2	11/2	12/2	13/2	14/2	15/2	16/2	17/2	9/1
STRUCTURE DESCRIPTION	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIRKSAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEAQ ACCESS CHAMBER 1200mm DIA	STD IPWEAQ ACCESS CHAMBER 1200mm DIA	STD IPWEAQ ACCESS CHAMBER 1200mm DIA	STD IPWEAQ ACCESS CHAMBER 1200mm DIA	STD IPWEAQ ACCESS CHAMBER (1050mm DIA) (D)	STD IPWEAQ ACCESS CHAMBER 1650mm DIA	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ ACCESS CHAMBER 1800mm DIA



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

PIPE SIZE (mm)		450		675	675	675	750	825	825	825	825	825	900	1050
PIPE CLASS		3		3	3	3	3	3	3	3	3	3	3	3
PIPE GRADE (%)		3.33%		2.00%	3.33%	2.50%	3.00%	3.00%	2.00%	2.00%	2.00%	1.00%	1.25%	1.00%
PIPE SLOPE (1 in X)		30.0		50.0	30.1	40.0	33.3	33.3	50.0	50.0	50.0	100.0	80.0	100.0
PIPE FLOW (cumecs)		0.526		1.054	1.232	1.308	1.314	1.679	1.867	1.864	2.079	2.156	2.213	2.327
CAPACITY FLOW (cumecs)		0.521		1.189	1.534	1.330	1.929	2.487	2.031	2.031	2.031	1.436	2.025	2.732
FULL PIPE VELOCITY (m/s)		3.30		2.95	3.44	3.65	2.98	3.14	3.49	3.49	3.89	4.03	3.48	2.69
NORMAL DEPTH VELOCITY (m/s)		3.73		3.75	4.76	4.23	4.70	4.99	4.31	4.31	4.32	4.03	3.48	3.54
DATUM RL	8.000				6.000		1.000							
HGL ELEVATION (39.35% AEP)	16.396	16.214	14.904	14.907	14.542	14.365	14.219	13.534	13.386	12.943	12.852	12.427	12.294	12.002	11.744	11.595	11.445	11.191	11.014	10.782	10.607	9.749	9.620	9.186	9.104	8.904	8.823	8.382
DEPTH TO INVERT	1.744	1.934	2.052	2.247	2.081	2.179	2.341	2.361	2.132	2.239	2.205	2.355	2.336	2.436	2.369	2.449	2.290	2.465	2.398	2.499	2.435	2.537	2.711	2.791	3.084	3.321		
INVERT LEVEL OF DRAIN	15.274	15.084	13.798	13.603	13.376	13.278	12.217	12.197	11.740	11.633	10.719	10.569	9.928	9.828	9.652	9.572	9.272	9.097	8.875	8.774	8.394	8.292	7.929	7.849	7.573	7.336		
DESIGN (& EXISTING) SURFACE LEVEL	17.188	(22.944)	15.850	(22.197)	15.458	(21.686)	14.559	(18.216)	13.873	(6.245)	12.925	(3.488)	12.265	(11.706)	12.021	(10.901)	11.563	(10.138)	11.274	(9.505)	10.830	(10.491)	10.640	(2.090)	10.658	(12.712)		
SETOUT COORDINATES (EASTING & NORTHING)	2515.888E	6978.442N	2476.450E	6982.714N	2464.096E	6984.719N	2431.424E	6990.023N	2412.175E	6993.148N	2380.779E	6998.245N	2358.166E	7001.592N	2348.235E	6998.839N	2333.914E	6990.905N	2323.031E	6984.875N	2288.420E	6965.700N	2261.698E	6950.896N	2234.481E	6940.180N		
CHAINAGE	144.616	38.604	184.285	11.316	196.801	31.900	229.901	18.301	249.402	30.458	281.209	21.359	304.068	8.805	314.373	15.022	330.745	11.092	343.188	38.067	382.755	29.049	413.304	27.600	442.554			

LINE 2

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 3 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 3 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

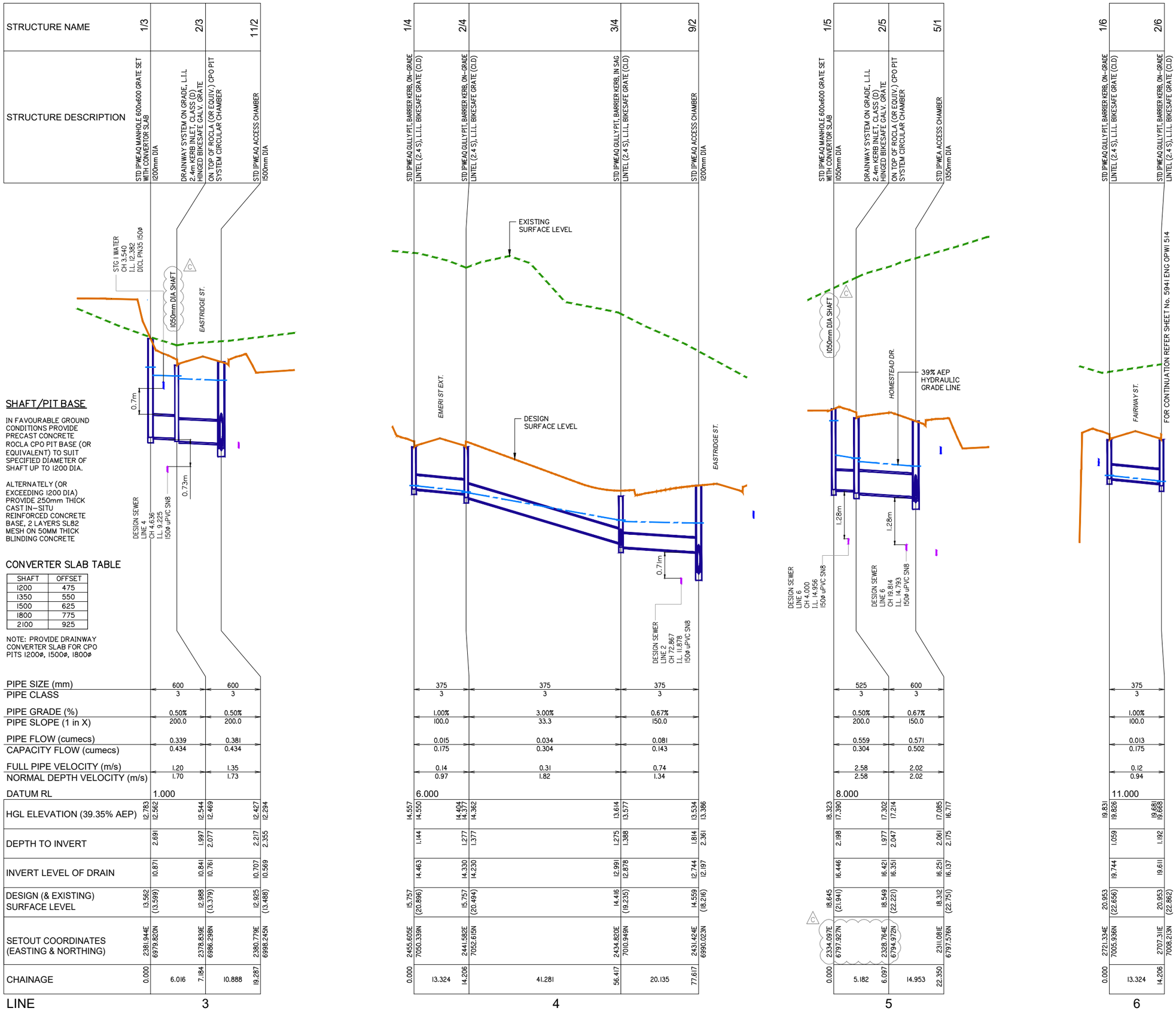
HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 512

Rev. No: D



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

PIPE SIZE (mm)			600			600			375			375			375			525			600			375		
PIPE CLASS			3			3			3			3			3			3			3			3		
PIPE GRADE (%)			0.50%			0.50%			1.00%			3.00%			0.67%			0.50%			0.67%			1.00%		
PIPE SLOPE (1 in X)			200.0			200.0			100.0			33.3			150.0			200.0			150.0			100.0		
PIPE FLOW (cumecs)			0.339			0.381			0.015			0.034			0.081			0.559			0.571			0.013		
CAPACITY FLOW (cumecs)			0.434			0.434			0.175			0.304			0.143			0.304			0.502			0.175		
FULL PIPE VELOCITY (m/s)			1.20			1.35			0.14			0.31			0.74			2.58			2.02			0.12		
NORMAL DEPTH VELOCITY (m/s)			1.70			1.73			0.97			1.82			1.34			2.58			2.02			0.94		
DATUM RL			1.000						6.000									8.000						11.000		
HGL ELEVATION (39.35% AEP)	12.783	12.562			12.544	12.469		12.427	14.557	14.550		14.404	14.377	14.362	13.614	13.577	13.534	18.323	17.390	17.302	17.214	17.085	16.717	19.831	19.826	19.681	19.668	
DEPTH TO INVERT	2.691				1.997	2.077		2.217	1.144			1.277	1.377		1.275	1.388	1.814	2.198		1.977	2.047	2.061	2.175	1.059		1.192		
INVERT LEVEL OF DRAIN	10.871				10.841	10.761		10.707	14.463			14.330	14.230		12.991	12.878	12.744	16.446		16.421	16.351	16.251	16.137	19.744		19.611		
DESIGN (& EXISTING) SURFACE LEVEL	13.562	(13.599)			12.988	(13.379)		12.925	15.757	(20.896)		15.757	(20.494)		14.416	(19.235)	14.559	18.645	(21.941)	18.549	(22.221)	18.312	(22.751)	20.953	(22.656)	20.953	(22.862)	
SETOUT COORDINATES (EASTING & NORTHING)	2381.944E	6979.820N			2378.839E	6986.298N		2380.779E	2455.605E	7050.339N		2441.582E	7052.615N		2434.820E	7010.949N	2431.424E	2334.097E	6797.927N	2328.764E	6794.972N	2311.081E	6797.576N	2721.334E	7005.936N	2707.311E	7008.213N	
CHAINAGE	0.000		6.016	7.184		10.888		19.287	0.000		13.324	14.206		41.281	56.417		20.135	77.617	0.000		5.182	6.097		14.953	22.350	0.000		13.324	14.206	
LINE			3						4									5						6					

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 4 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 4 OF 18

Issue	Date	Description	DRN	CHK
C	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

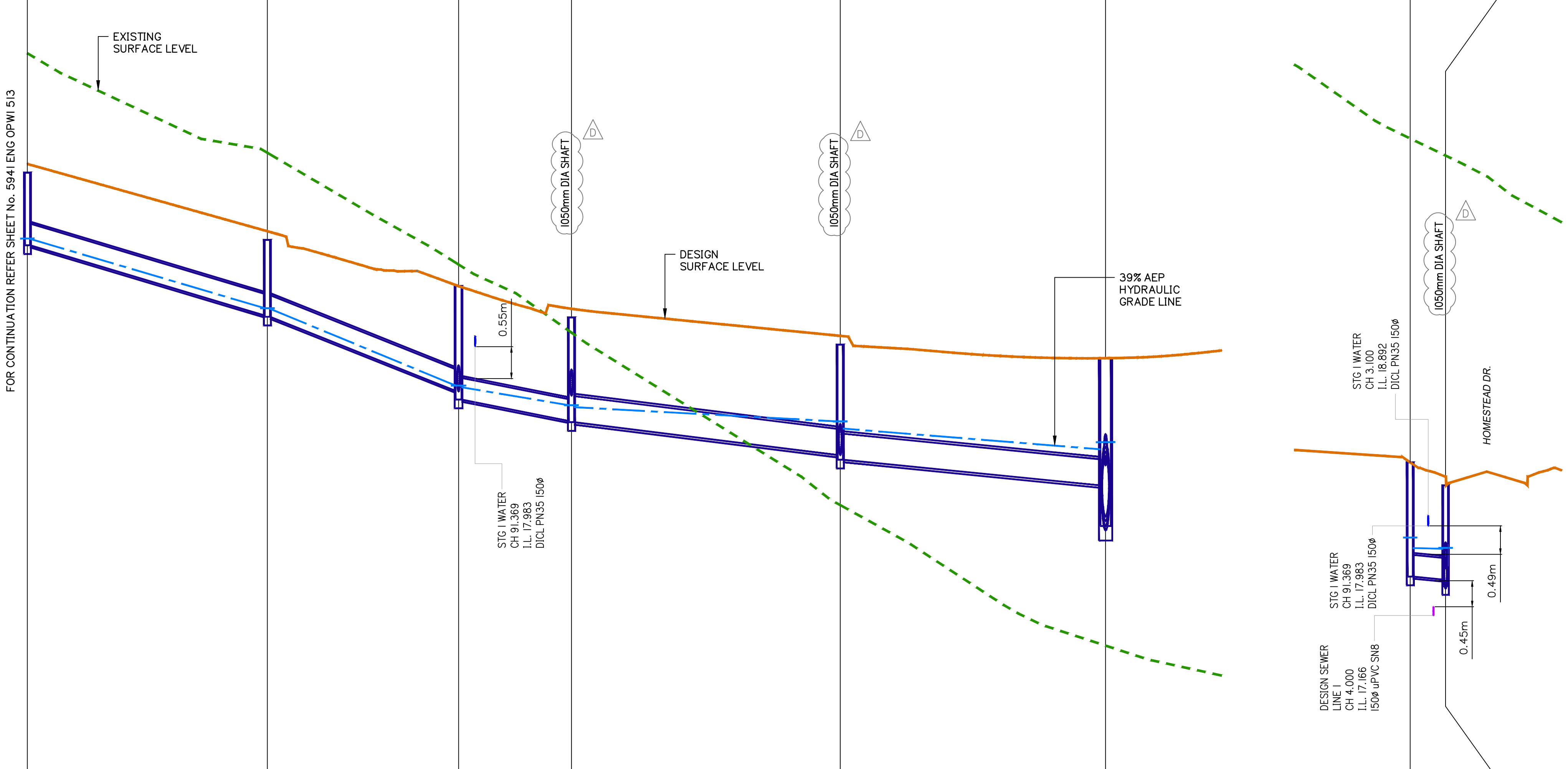
VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 513

Rev. No: C

STRUCTURE NAME	STRUCTURE DESCRIPTION
2/6	STD IPWEAQ GULLY PIT, BARRIER KERB, ON-GRADE LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (Cl.D)
3/6	STD IPWEAQ GULLY PIT, BARRIER KERB, ON-GRADE LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (Cl.D)
4/6	STD IPWEA ACCESS CHAMBER 1050mm DIA
5/6	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER
6/6	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER
13/X2	STD IPWEA ACCESS CHAMBER 2100mm DIA
1/8	STD IPWEAQ MANHOLE 600x600 GRATE SET WITH CONVERTOR SLAB 1050mm DIA
2/1	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

Pipe data

LINE	Pipe	PIPE SIZE (mm)	PIPE CLASS	PIPE GRADE (%)	PIPE SLOPE (1 in X)	PIPE FLOW (cumecs)	CAPACITY FLOW (cumecs)	FULL PIPE VELOCITY (m/s)	NORMAL DEPTH VELOCITY (m/s)	Length (CHAINAGE)
6	2/6 – 3/6	375	3	3.00%	33.3	0.024	0.304	0.22	1.64	40.436
6	3/6 – 4/6	375	3	4.00%	25.0	0.037	0.351	0.34	2.06	31.950
6	4/6 – 5/6	375	3	2.00%	50.0	0.085	0.248	0.77	2.03	18.468
6	5/6 – 6/6	450	3	1.25%	80.0	0.137	0.319	0.86	1.93	45.391
6	6/6 – 13/X2	450	3	1.00%	100.0	0.256	0.285	1.61	2.03	44.355
8	1/8 – 2/1	375	3	1.00%	100.0	0.087	0.175	0.79	1.59	5.229

DATUM RL 7.000 (LINE 6); 11.000 (LINE 8)

Structure data

LINE	STRUCTURE	HGL ELEVATION (39.35% AEP)	DEPTH TO INVERT	INVERT LEVEL OF DRAIN	DESIGN (& EXISTING) SURFACE LEVEL	SETOUT COORDINATES (EASTING & NORTHING)	CHAINAGE
6	2/6	19.681 / 19.668 / 19.661	1.192 / 1.252	19.611 / 19.551	20.953 (22.862)	2707.311E 7008.213N	14.206
6	3/6	18.465 / 18.456	1.305 / 1.325	18.338 / 18.318	19.793 (21.145)	2700.682E 6967.381N	55.572
6	4/6	17.131 / 17.132 / 17.103	1.809 / 1.959	17.040 / 16.890	18.845 (19.219)	2695.404E 6934.866N	88.513
6	5/6	16.793 / 16.759	1.786 / 1.806	16.520 / 16.500	18.456 (18.044)	2692.286E 6915.660N	107.970
6	6/6	16.513 / 16.390	1.906 / 1.986	15.933 / 15.853	17.989 (15.071)	2684.863E 6869.937N	154.292
6	13/X2	16.032 / 16.155 / 15.563	2.194 / 2.894	15.409 / 14.709	17.604 (12.647)	2679.621E 6824.518N	200.013
8	1/8	18.511 / 18.330	1.969	17.837	19.806 (25.393)	2364.577E 6688.433N	0.000
8	2/1	18.317 / 18.333 / 18.245	1.626 / 1.739	17.785 / 17.672	19.561 (25.098)	2369.910E 6691.388N	6.097

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 5 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client: FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 5 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 514 Rev. No: D

SHAFT/PIT BASE

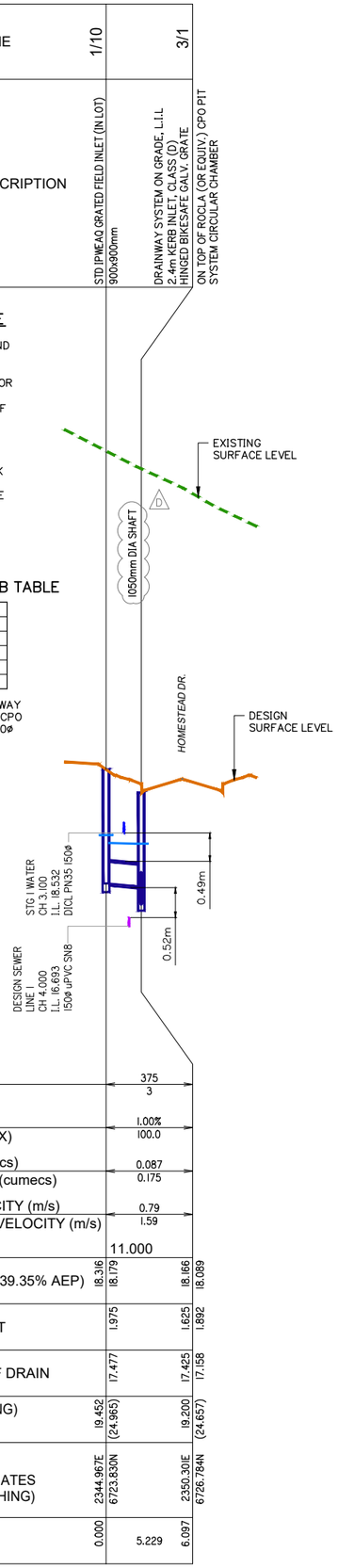
IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

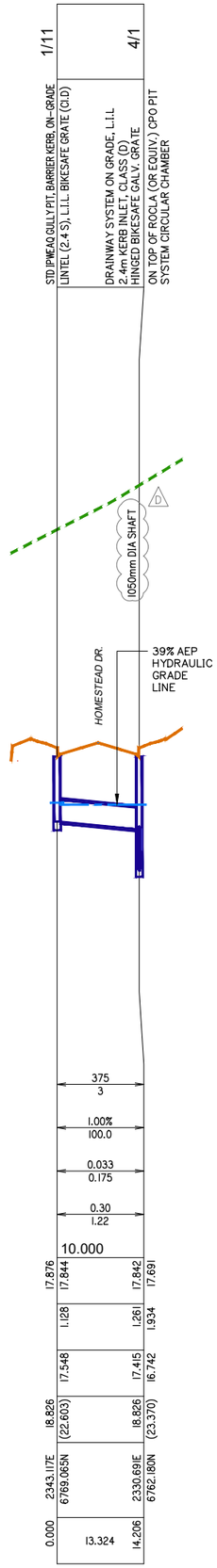
ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

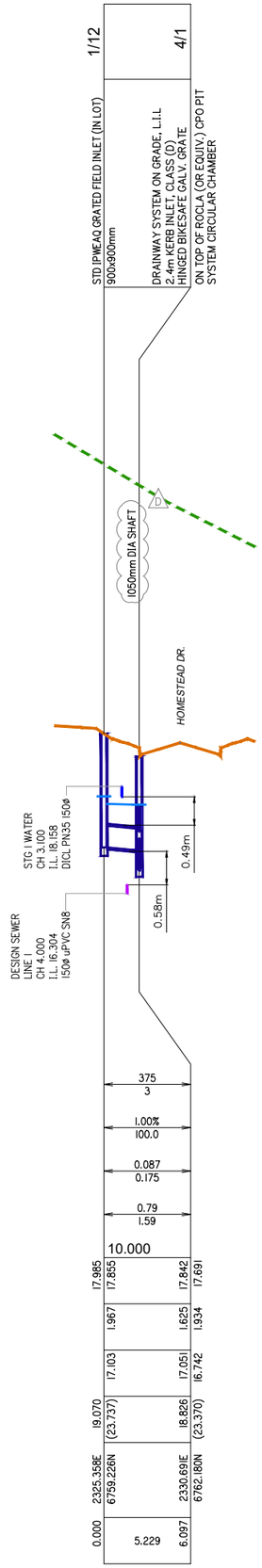
CONVERTER SLAB TABLE

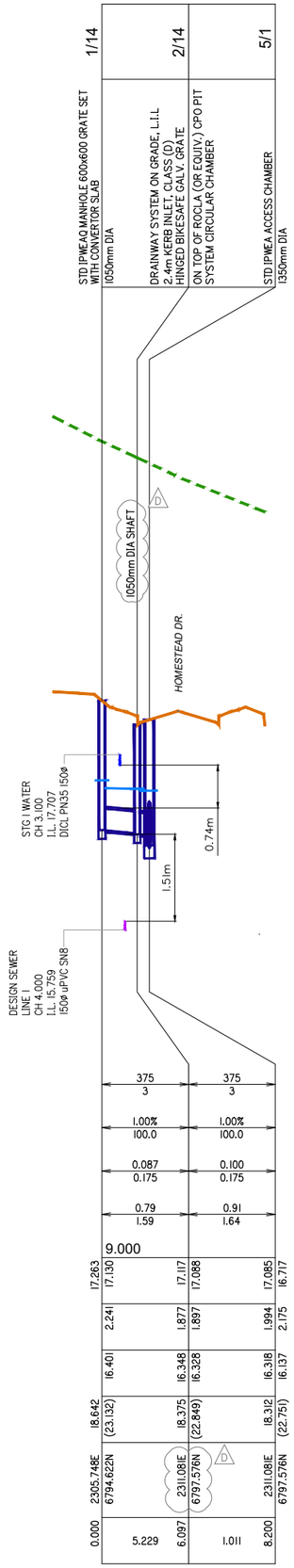
SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

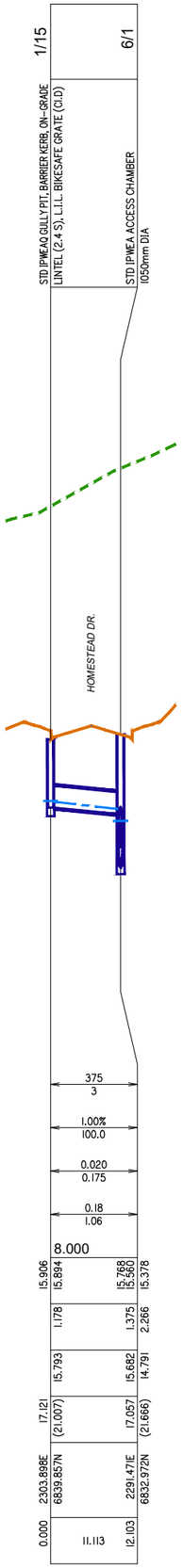
NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø











STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 6 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 6 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 515

Rev. No: D

STRUCTURE NAME	1/16	2/16	6/1	1/18	2/18	7/1	1/19	8/1	1/20	2/20	8/1	1/21	2/21	9/1
STRUCTURE DESCRIPTION	STD IPWEAQ MANHOLE 600x600 GRATE SET WITH CONVERTOR SLAB 1050mm DIA	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE	ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEAQ GRATED FIELD INLET (IN LOT) 900x900mm	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE	ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEAQ GULLY PIT, BARRIER KERB, ON-GRADE LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (D.L.D)	STD IPWEA ACCESS CHAMBER 1050mm DIA	STD IPWEAQ GRATED FIELD INLET (IN LOT) 900x900mm	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE	ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEA ACCESS CHAMBER 1050mm DIA	STD IPWEAQ GRATED FIELD INLET (IN LOT) 900x900mm	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE	ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEA ACCESS CHAMBER 1800mm DIA

SHAFT/PIT BASE

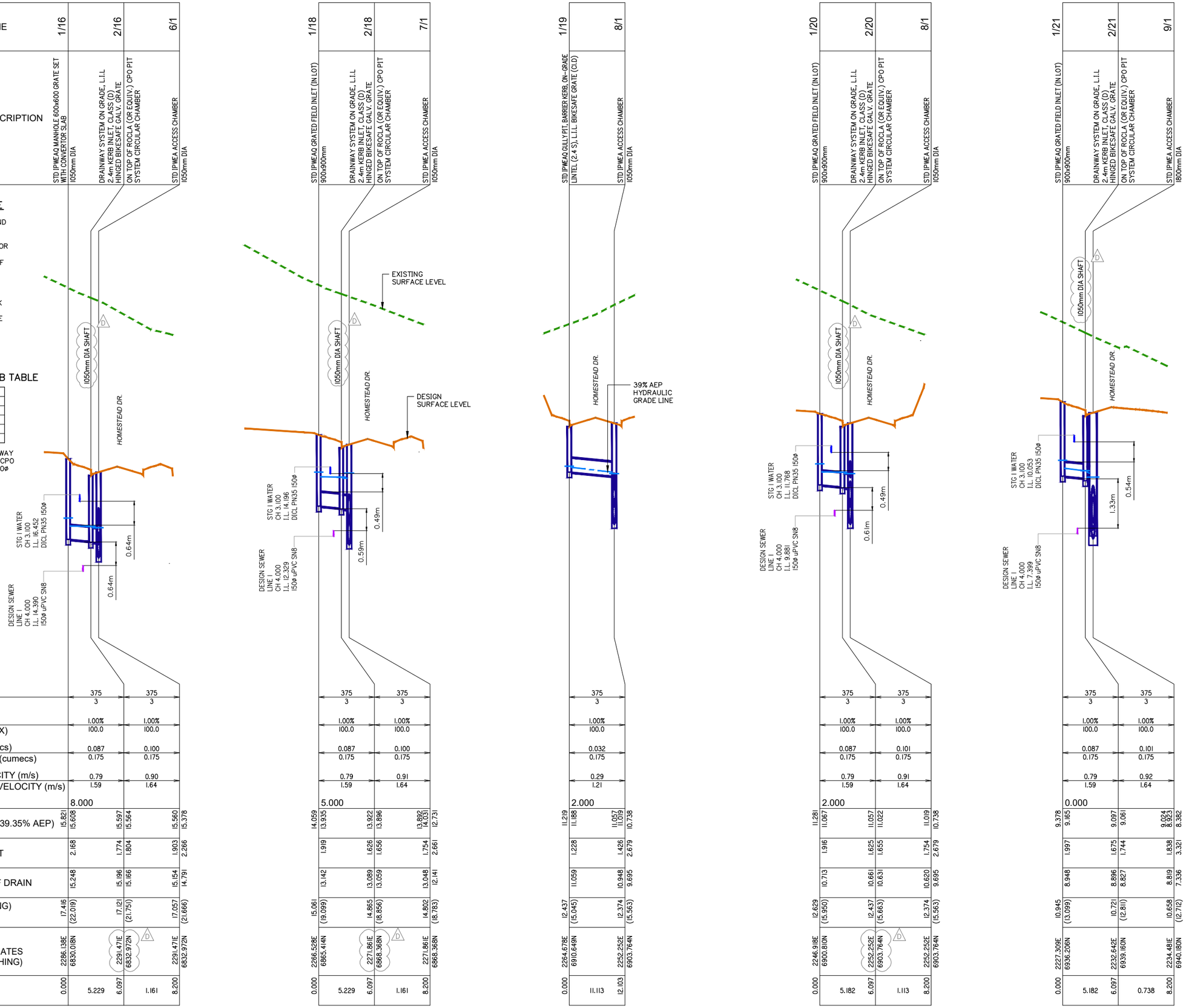
IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø



PIPE SIZE (mm)		375	375		375	375		375	375	375			375	375
PIPE CLASS		3	3		3	3		3	3	3			3	3
PIPE GRADE (%)		1.00%	1.00%		1.00%	1.00%		1.00%	1.00%	1.00%			1.00%	1.00%
PIPE SLOPE (1 in X)		100.0	100.0		100.0	100.0		100.0	100.0	100.0			100.0	100.0
PIPE FLOW (cumecs)		0.087	0.100		0.087	0.100		0.032	0.087	0.101			0.087	0.101
CAPACITY FLOW (cumecs)		0.175	0.175		0.175	0.175		0.175	0.175	0.175			0.175	0.175
FULL PIPE VELOCITY (m/s)		0.79	0.90		0.79	0.91		0.29	0.79	0.91			0.79	0.92
NORMAL DEPTH VELOCITY (m/s)		1.59	1.64		1.59	1.64		1.21	1.59	1.64			1.59	1.64
DATUM RL		8.000			5.000			2.000	2.000				0.000	
HGL ELEVATION (39.35% AEP)	15.821	15.608	15.597	15.564	14.059	13.935	13.922	13.896	13.892 14.031	11.219	11.188	11.057 11.019	11.281	11.067	11.057	11.022	11.019	10.738	9.378	9.165	9.097	9.061	9.024 8.923	8.382
DEPTH TO INVERT	2.168		1.774	1.804	1.919		1.626	1.656	1.754 2.661	1.228		1.426	2.679	1.916		1.625	1.655	1.754	2.679	1.997		1.675	1.744	1.838	3.321
INVERT LEVEL OF DRAIN	15.248		15.196	15.166	13.142		13.089	13.059	13.048 12.141	11.059		10.948	9.695	10.713		10.661	10.631	10.620	9.695	8.948		8.896	8.827	8.819	7.336
DESIGN (& EXISTING) SURFACE LEVEL	17.416 (22.019)		17.121 (21.751)		15.061 (19.099)		14.865 (18.856)		14.802 (18.783)	12.437 (15.045)		12.374 (15.563)		12.629 (15.950)		12.437 (15.663)		12.374 (15.563)		10.945 (13.099)		10.721 (12.811)		10.658 (12.712)	
SETOUT COORDINATES (EASTING & NORTHING)	2286.138E 6830.018N		2291.471E 6832.972N		2266.528E 6865.414N		2271.861E 6868.368N		2271.861E 6868.368N	2264.678E 6910.649N		2252.252E 6903.764N		2246.918E 6900.810N		2252.252E 6903.764N		2252.252E 6903.764N		2227.309E 6936.206N		2232.642E 6939.160N		2234.481E 6940.180N	
CHAINAGE	0.000	5.229	6.097	1.161	0.000	5.229	6.097	1.161	8.200	0.000	11.113	12.103	8.200	0.000	5.182	6.097	1.113	8.200	0.000	5.182	6.097	0.738	8.200	
LINE	16				18					19				20						21				

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 7 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 7 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

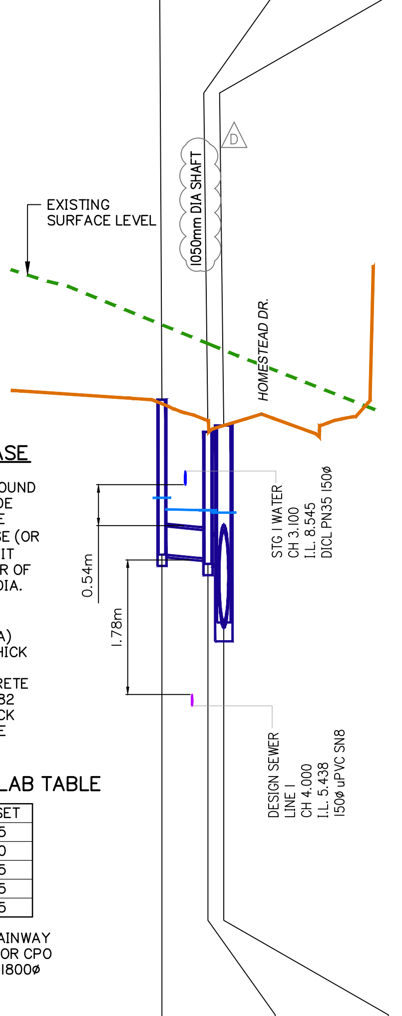
Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 516

Rev. No: D

LINE 22

STRUCTURE NAME	1/22	2/22	10/1
STRUCTURE DESCRIPTION	STD IPWEAQ MANHOLE 600x600 GRATE SET WITH CONVERTOR SLAB 1050mm DIA	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEA ACCESS CHAMBER 1800mm DIA



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN–SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

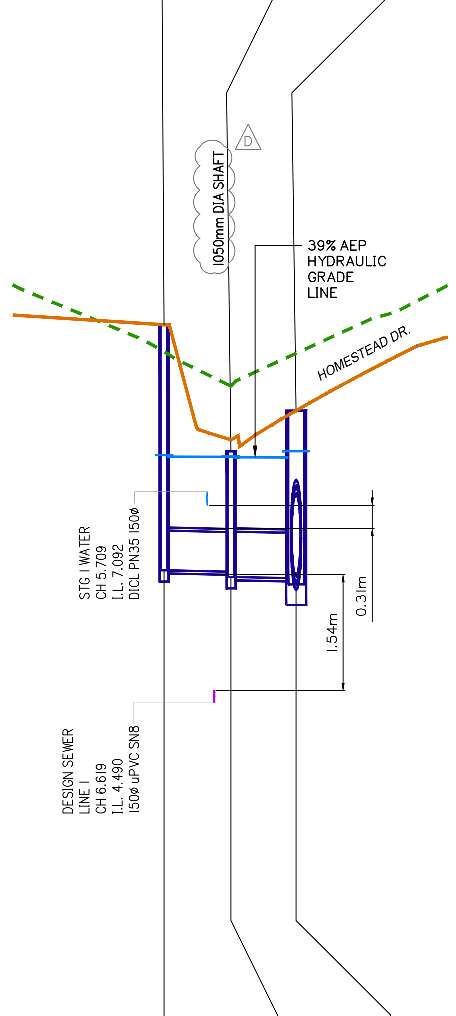
NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

	1/22	1/22 – 2/22	2/22	2/22 – 10/1	10/1
PIPE SIZE (mm)		375		375	
PIPE CLASS		3		3	
PIPE GRADE (%)		1.00%		1.00%	
PIPE SLOPE (1 in X)		100.0		100.0	
PIPE FLOW (cumecs)		0.087		0.100	
CAPACITY FLOW (cumecs)		0.175		0.175	
FULL PIPE VELOCITY (m/s)		0.79		0.91	
NORMAL DEPTH VELOCITY (m/s)		1.59		1.64	
DATUM RL	-2.000				
HGL ELEVATION (39.35% AEP)	8.193 / 8.040		8.027 / 7.998		7.995 / 7.875
DEPTH TO INVERT	2.050		1.676 / 1.745		1.839 / 2.607
INVERT LEVEL OF DRAIN	7.440		7.388 / 7.319		7.311 / 6.543
DESIGN (& EXISTING) SURFACE LEVEL	9.437 (10.482)		9.214 (10.233)		9.150 (10.147)
SETOUT COORDINATES (EASTING & NORTHING)	2207.699E 6971.602N		2213.032E 6974.556N		2214.872E 6975.576N
CHAINAGE	0.000	5.182	6.097	0.738	8.200

LINE 22

LINE 23

STRUCTURE NAME	1/23	2/23	11/1
STRUCTURE DESCRIPTION	STD IPWEAQ MANHOLE 600x600 GRATE SET WITH CONVERTOR SLAB 1050mm DIA	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEA ACCESS CHAMBER 2100mm DIA

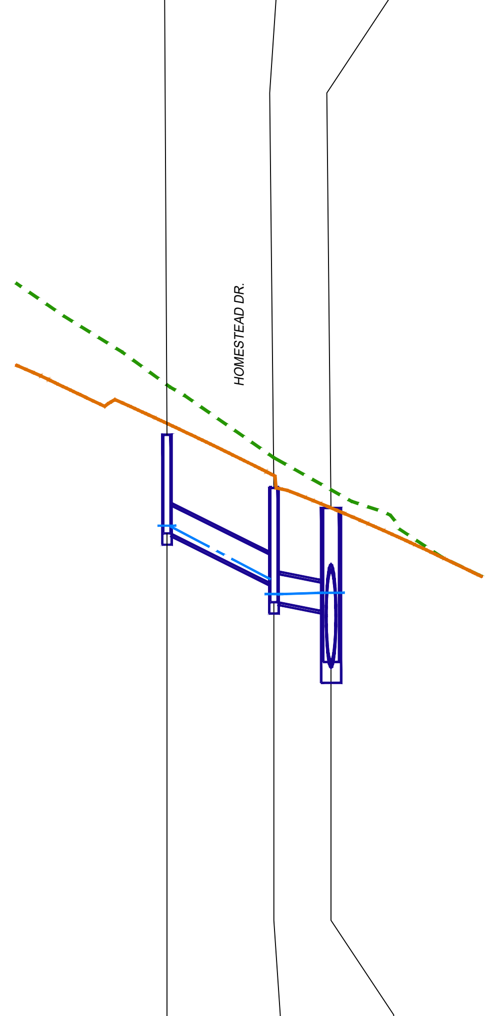


	1/23	1/23 – 2/23	2/23	2/23 – 11/1	11/1
PIPE SIZE (mm)		525		600	
PIPE CLASS		3		3	
PIPE GRADE (%)		0.25%		0.20%	
PIPE SLOPE (1 in X)		399.9		500.0	
PIPE FLOW (cumecs)		0.075		0.084	
CAPACITY FLOW (cumecs)		0.215		0.275	
FULL PIPE VELOCITY (m/s)		0.35		0.30	
NORMAL DEPTH VELOCITY (m/s)		0.91		0.85	
DATUM RL	-3.000				
HGL ELEVATION (39.35% AEP)	7.758 / 7.737		7.735 / 7.736 / 7.727		7.726 / 7.808 / 7.144
DEPTH TO INVERT	3.248		1.594 / 1.664		2.215 / 2.297
INVERT LEVEL OF DRAIN	6.234		6.214 / 6.144		6.130 / 6.048
DESIGN (& EXISTING) SURFACE LEVEL	9.482 (9.125)		7.959 (8.669)		8.346 (9.103)
SETOUT COORDINATES (EASTING & NORTHING)	2193.696E 6990.614N		2200.052E 6996.760N		2206.383E 6990.898N
CHAINAGE	0.000	7.973	8.841	7.112	17.469

LINE 23

LINE 24

STRUCTURE NAME	1/24	2/24	12/1
STRUCTURE DESCRIPTION	STD IPWEAQ GULLY PIT, BARRIER KERB, ON–GRADE LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (Cl.D)	STD IPWEAQ GULLY PIT, BARRIER KERB, ON–GRADE LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (Cl.D)	OVERSIZE CHAMBER CAST–INSITU 3566x1800mm – REFER DETAIL PLAN

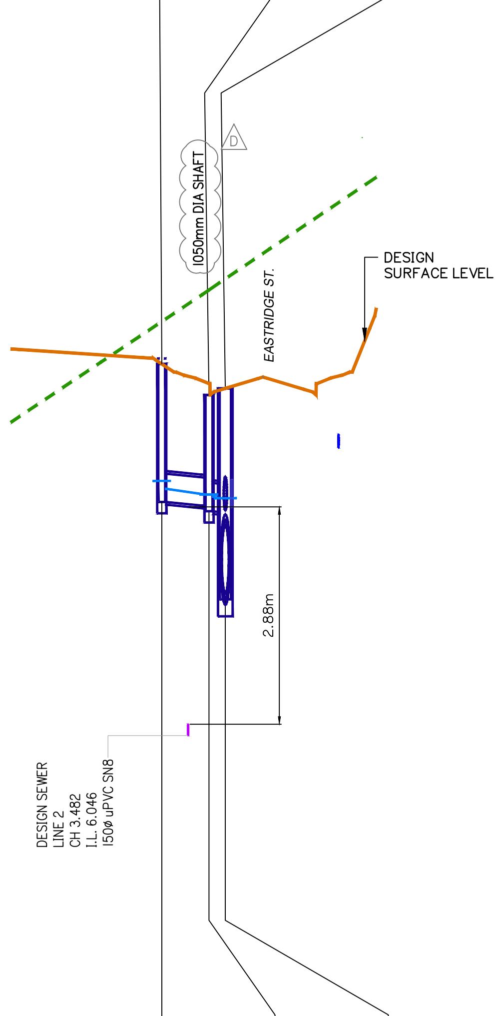


	1/24	1/24 – 2/24	2/24	2/24 – 12/1	12/1
PIPE SIZE (mm)		375		375	
PIPE CLASS		3		3	
PIPE GRADE (%)		5.00%		2.00%	
PIPE SLOPE (1 in X)		20.0		50.0	
PIPE FLOW (cumecs)		0.017		0.022	
CAPACITY FLOW (cumecs)		0.392		0.248	
FULL PIPE VELOCITY (m/s)		0.16		0.20	
NORMAL DEPTH VELOCITY (m/s)		1.78		1.38	
DATUM RL	-2.000				
HGL ELEVATION (39.35% AEP)	7.823 / 7.815		7.114 / 6.918 / 6.916		6.935
DEPTH TO INVERT	1.305		1.263 / 1.513		1.368 / 2.040
INVERT LEVEL OF DRAIN	7.722		7.060 / 6.810		6.690 / 6.018
DESIGN (& EXISTING) SURFACE LEVEL	9.177 (9.688)		8.487 (8.723)		8.059 (8.298)
SETOUT COORDINATES (EASTING & NORTHING)	2226.297E 6981.171N		2220.310E 6994.000N		2215.148E 6999.517N
CHAINAGE	0.000	13.225	14.157	6.028	21.712

LINE 24

LINE 25

STRUCTURE NAME	1/25	2/25	17/2
STRUCTURE DESCRIPTION	STD IPWEAQ GRATED FIELD INLET (IN LOT) 900x900mm	DRAINWAY SYSTEM IN SAG, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEAQ ACCESS CHAMBER 1500mm DIA



	1/25	1/25 – 2/25	2/25	2/25 – 17/2	17/2
PIPE SIZE (mm)		375		375	
PIPE CLASS		3		3	
PIPE GRADE (%)		1.00%		1.00%	
PIPE SLOPE (1 in X)		100.0		100.0	
PIPE FLOW (cumecs)		0.059		0.073	
CAPACITY FLOW (cumecs)		0.175		0.175	
FULL PIPE VELOCITY (m/s)		0.53		0.66	
NORMAL DEPTH VELOCITY (m/s)		1.43		1.52	
DATUM RL	-1.000				
HGL ELEVATION (39.35% AEP)	9.416 / 9.314		9.235 / 9.211		9.186 / 9.104
DEPTH TO INVERT	1.826		1.470 / 1.540		1.636 / 2.791
INVERT LEVEL OF DRAIN	9.138		9.084 / 9.014		9.004 / 7.849
DESIGN (& EXISTING) SURFACE LEVEL	10.964 (11.524)		10.705 (11.942)		10.640 (12.090)
SETOUT COORDINATES (EASTING & NORTHING)	2257.648E 6958.272N		2260.662E 6952.804N		2261.698E 6950.896N
CHAINAGE	0.000	5.329	6.244	0.956	8.414

LINE 25

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 8 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client: FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 8 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

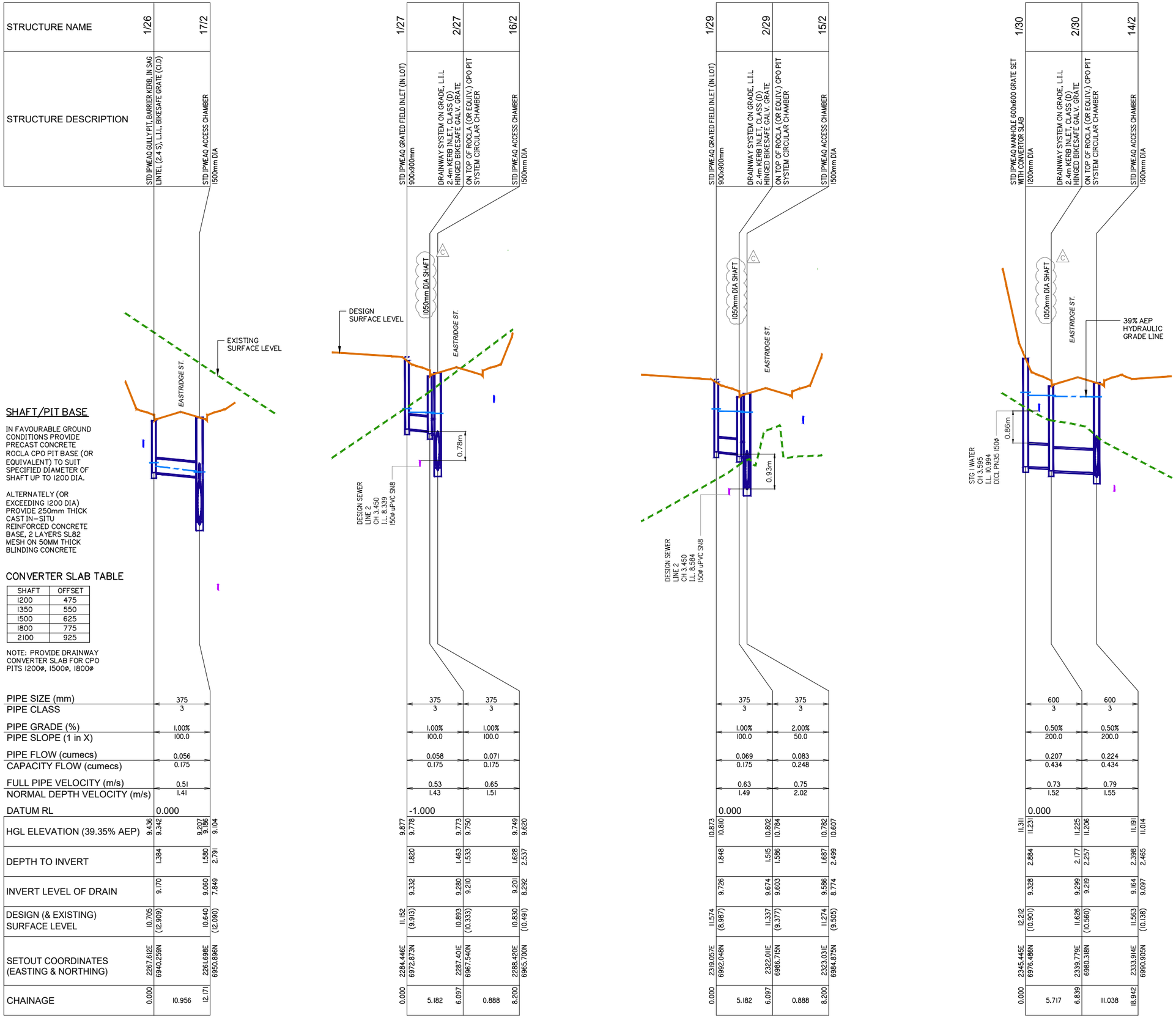
SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	[signature]
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 517 Rev. No: D



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

PIPE SIZE (mm)		375				375	375			375	375			600	600									
PIPE CLASS		3				3	3			3	3			3	3									
PIPE GRADE (%)		1.00%				1.00%	1.00%			1.00%	2.00%			0.50%	0.50%									
PIPE SLOPE (1 in X)		100.0				100.0	100.0			100.0	50.0			200.0	200.0									
PIPE FLOW (cumecs)		0.056				0.058	0.071			0.069	0.083			0.207	0.224									
CAPACITY FLOW (cumecs)		0.175				0.175	0.175			0.175	0.248			0.434	0.434									
FULL PIPE VELOCITY (m/s)		0.51				0.53	0.65			0.63	0.75			0.73	0.79									
NORMAL DEPTH VELOCITY (m/s)		1.41				1.43	1.51			1.49	2.02			1.52	1.55									
DATUM RL		0.000				-1.000				0.000				0.000										
HGL ELEVATION (39.35% AEP)	9.436	9.342		9.207	9.186	9.104	9.877	9.778	9.773	9.750	9.749	9.620	10.873	10.810	10.802	10.784	10.782	10.607	11.311	11.231	11.225	11.206	11.191	11.014
DEPTH TO INVERT	1.384			1.580		2.791	1.820		1.463	1.533	1.628	2.537	1.848		1.515	1.586	1.687	2.499	2.884		2.177	2.257	2.398	2.465
INVERT LEVEL OF DRAIN	9.170			9.060		7.849	9.332		9.280	9.210	9.201	8.232	9.726		9.674	9.603	9.586	8.774	9.328		9.299	9.219	9.164	9.097
DESIGN (& EXISTING) SURFACE LEVEL	10.705 (12.909)			10.640 (12.090)			11.152 (9.913)		10.893 (10.333)		10.830 (10.491)		11.574 (8.987)		11.337 (9.377)		11.274 (9.505)		12.212 (10.901)		11.626 (10.560)		11.563 (10.138)	
SETOUT COORDINATES (EASTING & NORTHING)	2267.612E 6940.259N			2261.698E 6950.896N			2284.446E 6972.873N		2287.401E 6967.540N		2288.420E 6965.700N		2319.057E 6992.048N		2322.011E 6986.715N		2323.031E 6984.875N		2345.445E 6976.486N		2339.779E 6980.318N		2333.914E 6990.905N	
CHAINAGE	0.000		10.956		12.171		0.000	5.182	6.097	0.888	8.200		0.000	5.182	6.097	0.888	8.200		0.000	5.717	6.839	11.038	18.942	
LINE	26						27						29						30					

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 9 OF 18

Issue	Date	Description	DRN	CHK
C	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

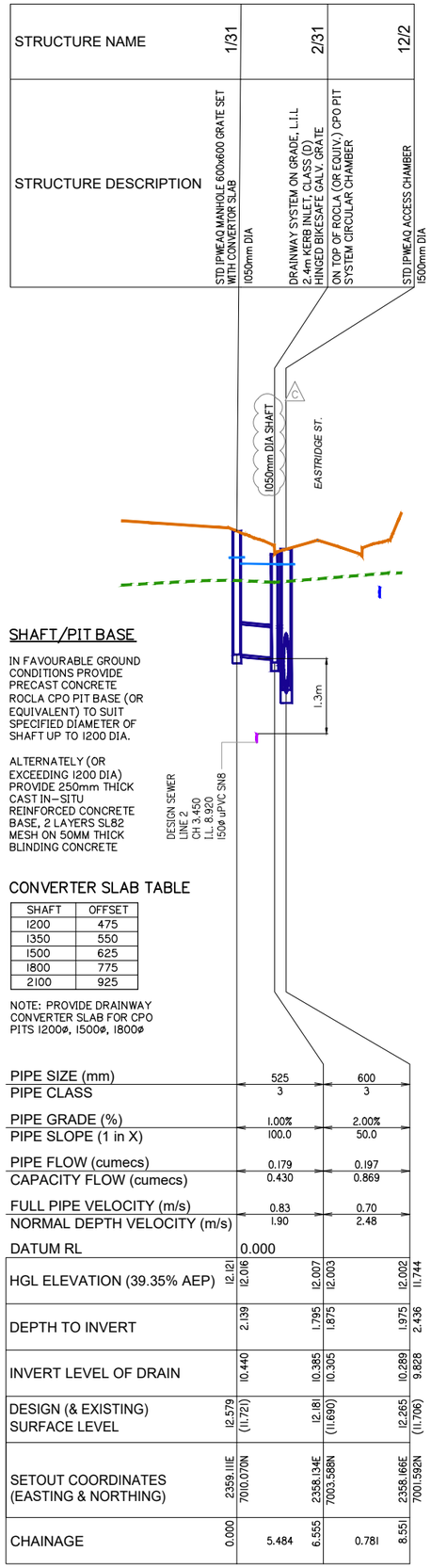
Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

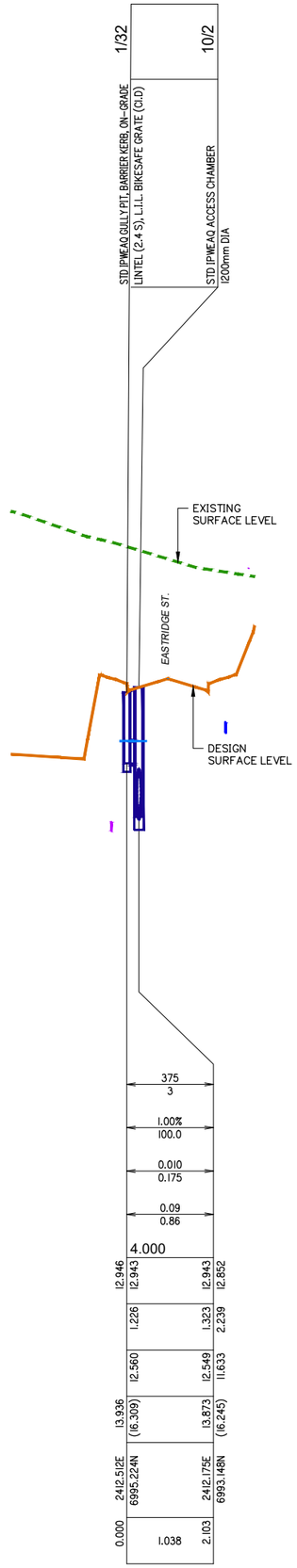
Drawing No: 5941 ENG OPW1 518

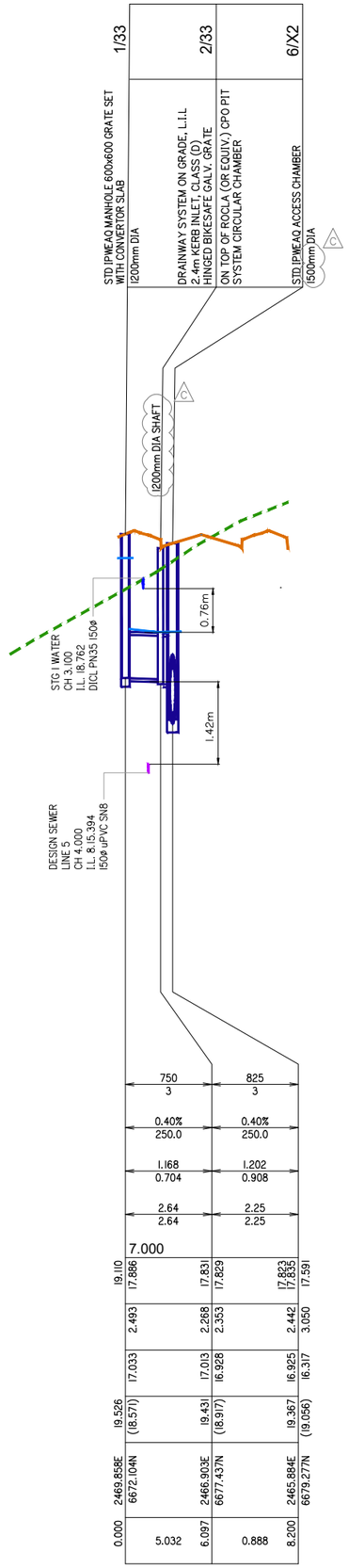
Rev. No: C

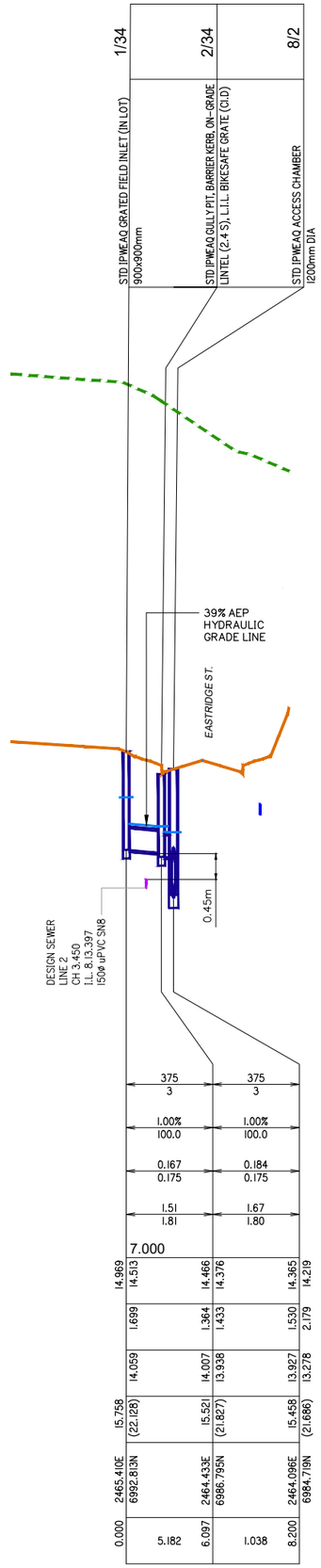
STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 9 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg









STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 10 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 10 OF 18

Issue	Date	Description	DRN	CHK
C	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 519

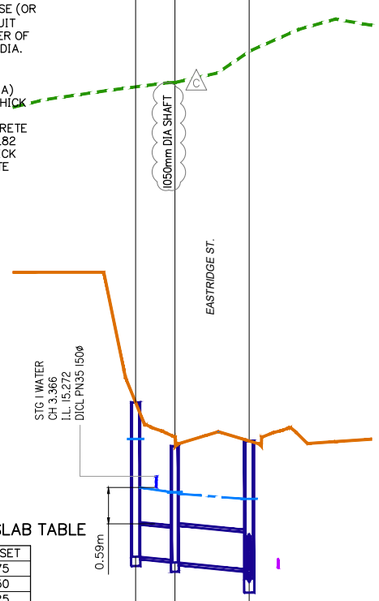
Rev. No: C

STRUCTURE NAME	1/35	2/35	7/2
STRUCTURE DESCRIPTION	STD IPWEAQ MANHOLE 600x600 GRATE SET WITH CONVERTOR SLAB 1200mm DIA	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE	ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEAQ ACCESS CHAMBER 1200mm DIA

SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE



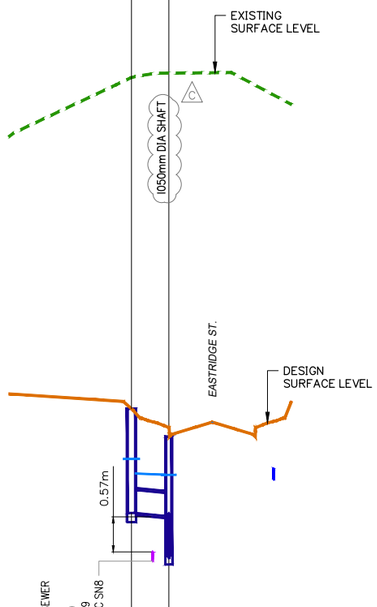
CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

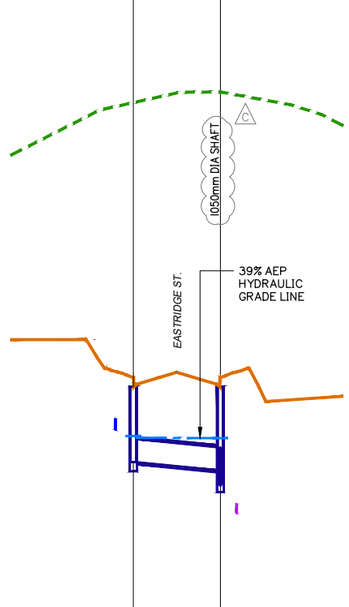
PIPE SIZE (mm)			525		600	
PIPE CLASS			3		3	
PIPE GRADE (%)			1.00%		1.00%	
PIPE SLOPE (1 in X)			100.0		100.0	
PIPE FLOW (cumecs)			0.521		0.547	
CAPACITY FLOW (cumecs)			0.430		0.614	
FULL PIPE VELOCITY (m/s)			2.40		1.94	
NORMAL DEPTH VELOCITY (m/s)			2.40		2.45	
DATUM RL			8.000			
HGL ELEVATION (39.35% AEP)	15.884	15.091		15.013	14.991	14.904 14.907 14.542
DEPTH TO INVERT	2.517			1.856	1.896	2.093 2.247
INVERT LEVEL OF DRAIN	13.961			13.908	13.868	13.757 13.603
DESIGN (& EXISTING) SURFACE LEVEL	16.478	(21.623)		15.914	(21.693)	15.850 (22.197)
SETOUT COORDINATES (EASTING & NORTHING)	2475.486E	6964.433N		2474.511E	6970.767N	2476.450E 6982.714N
CHAINAGE	0.000		5.319	6.408	11.038	18.511

LINE 35



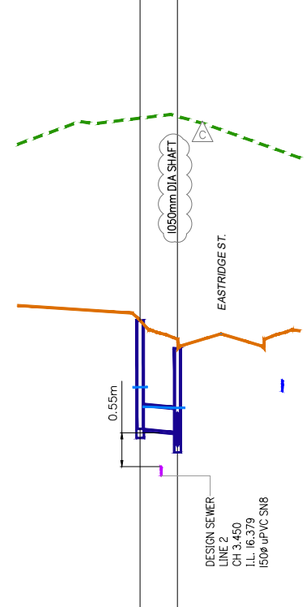
PIPE SIZE (mm)			375			
PIPE CLASS			3			
PIPE GRADE (%)			1.00%			
PIPE SLOPE (1 in X)			100.0			
PIPE FLOW (cumecs)			0.118			
CAPACITY FLOW (cumecs)			0.175			
FULL PIPE VELOCITY (m/s)			1.07			
NORMAL DEPTH VELOCITY (m/s)			1.70			
DATUM RL			9.000			
HGL ELEVATION (39.35% AEP)	16.655	16.418			16.396	16.214
DEPTH TO INVERT	1.700				1.295	1.934
INVERT LEVEL OF DRAIN	15.773				15.723	15.084
DESIGN (& EXISTING) SURFACE LEVEL	17.473	(22.871)			17.168	(22.944)
SETOUT COORDINATES (EASTING & NORTHING)	2516.865E	6984.460N			2515.888E	6978.442N
CHAINAGE	0.000		5.079		6.097	

LINE 36



PIPE SIZE (mm)			375			
PIPE CLASS			3			
PIPE GRADE (%)			1.00%			
PIPE SLOPE (1 in X)			100.0			
PIPE FLOW (cumecs)			0.032			
CAPACITY FLOW (cumecs)			0.175			
FULL PIPE VELOCITY (m/s)			0.29			
NORMAL DEPTH VELOCITY (m/s)			1.21			
DATUM RL			9.000			
HGL ELEVATION (39.35% AEP)	17.029	16.999			16.994	16.895
DEPTH TO INVERT	1.228				1.361	1.567
INVERT LEVEL OF DRAIN	16.603				16.470	16.264
DESIGN (& EXISTING) SURFACE LEVEL	17.981	(22.464)			17.981	(22.636)
SETOUT COORDINATES (EASTING & NORTHING)	2538.967E	6960.303N			2541.244E	6974.326N
CHAINAGE	0.000		13.324		14.206	

LINE 38



PIPE SIZE (mm)			375			
PIPE CLASS			3			
PIPE GRADE (%)			1.00%			
PIPE SLOPE (1 in X)			100.0			
PIPE FLOW (cumecs)			0.118			
CAPACITY FLOW (cumecs)			0.175			
FULL PIPE VELOCITY (m/s)			1.07			
NORMAL DEPTH VELOCITY (m/s)			1.70			
DATUM RL			9.000			
HGL ELEVATION (39.35% AEP)	17.825	17.507			17.486	17.322
DEPTH TO INVERT	1.767				1.365	1.546
INVERT LEVEL OF DRAIN	17.145				17.093	16.912
DESIGN (& EXISTING) SURFACE LEVEL	18.912	(22.211)			18.608	(22.240)
SETOUT COORDINATES (EASTING & NORTHING)	2561.771E	6977.170N			2560.794E	6971.152N
CHAINAGE	0.000		5.230		6.097	

LINE 39

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 11 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 11 OF 18

Issue	Date	Description	DRN	CHK
C	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

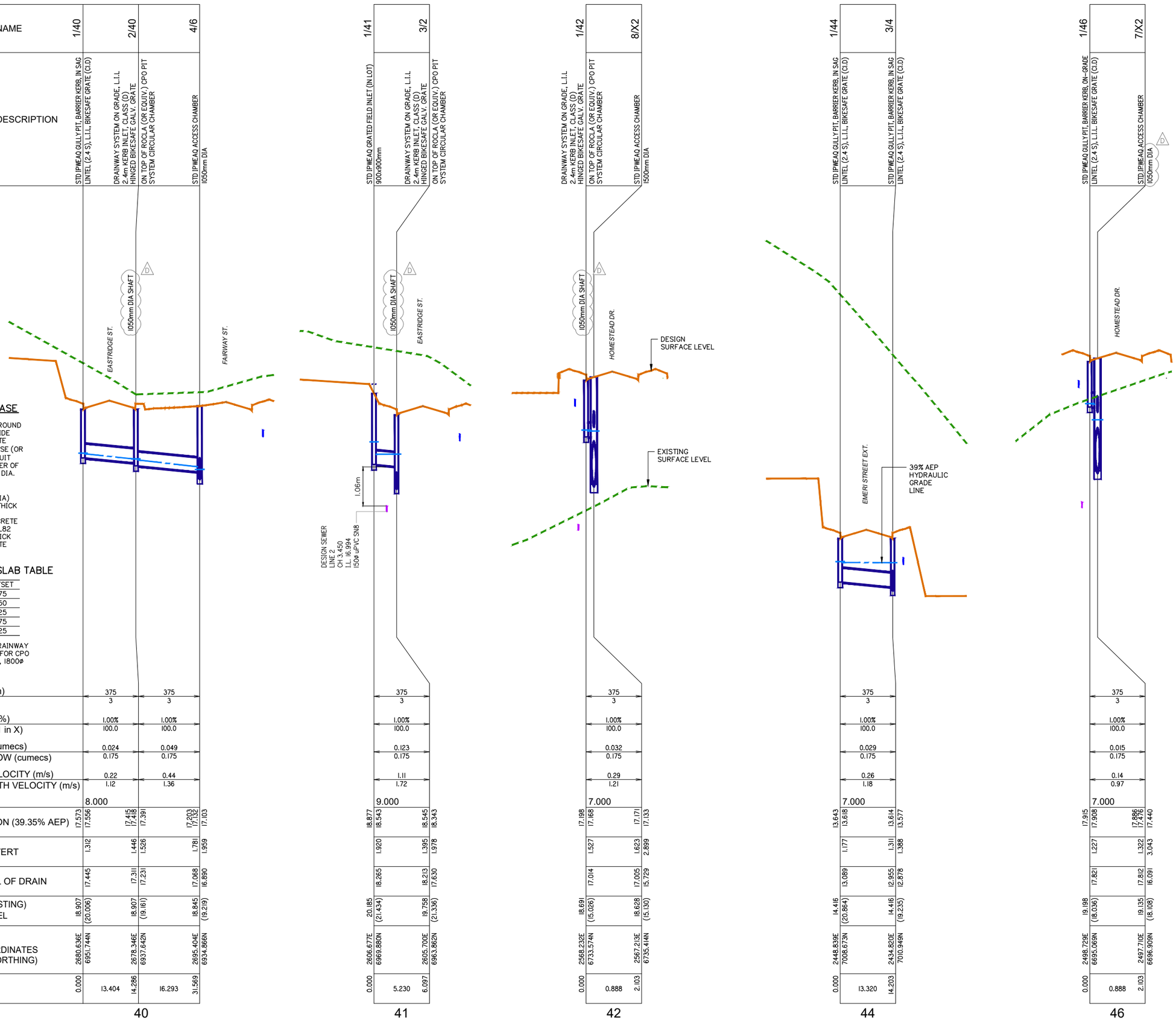
VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 520

Rev. No: C

STRUCTURE NAME	1/40	2/40	4/6	1/41	3/2	1/42	8/X2	1/44	3/4	1/46	7/X2
STRUCTURE DESCRIPTION	STD IPWEAQ GULLY PIT, BARRIER KERB, IN SAG LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (CI.D)	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE	ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEAQ GRATED FIELD INLET (IN LOT) 900x900mm	DRAINWAY SYSTEM ON GRADE, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE	ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ GULLY PIT, BARRIER KERB, IN SAG LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (CI.D)	STD IPWEAQ GULLY PIT, BARRIER KERB, IN SAG LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (CI.D)	STD IPWEAQ GULLY PIT, BARRIER KERB, ON-GRADE LINTEL (2.4 S), L.I.L. BIKESAFE GRATE (CI.D)	STD IPWEAQ ACCESS CHAMBER 1050mm DIA



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

PIPE SIZE (mm)		375	375		375		375		375		375
PIPE CLASS		3	3		3		3		3		3
PIPE GRADE (%)		1.00%	1.00%		1.00%		1.00%		1.00%		1.00%
PIPE SLOPE (1 in X)		100.0	100.0		100.0		100.0		100.0		100.0
PIPE FLOW (cumecs)		0.024	0.049		0.123		0.032		0.029		0.015
CAPACITY FLOW (cumecs)		0.175	0.175		0.175		0.175		0.175		0.175
FULL PIPE VELOCITY (m/s)		0.22	0.44		1.11		0.29		0.26		0.14
NORMAL DEPTH VELOCITY (m/s)		1.12	1.36		1.72		1.21		1.18		0.97
DATUM RL		8.000			9.000		7.000		7.000		7.000
HGL ELEVATION (39.35% AEP)	17.573	17.556	17.391	17.415 17.418	17.433 17.436	18.877	18.543	18.545	17.198	17.168	17.171	17.133	13.643	13.618	13.614	13.577	17.915	17.908	17.486 17.476	17.440	17.103
DEPTH TO INVERT	1.312		1.526	1.446	1.781	1.920		1.395	1.978	1.527		1.623	2.899	1.177		1.311	1.388	1.227		1.322	3.043	1.959
INVERT LEVEL OF DRAIN	17.445		17.231	17.311	17.068	18.265		18.213	17.630	17.014		17.005	15.729	13.089		12.955	12.878	17.821		17.812	16.091	16.890
DESIGN (& EXISTING) SURFACE LEVEL	18.907 (20.006)		18.907 (19.161)		18.845 (19.219)	20.185 (21.434)		19.758 (21.336)		18.691 (15.026)		18.628 (15.130)		14.416 (20.864)		14.416 (19.235)		19.198 (18.036)		19.135 (18.108)		
SETOUT COORDINATES (EASTING & NORTHING)	2680.636E 6951.744N		2678.346E 6937.642N		2695.404E 6934.866N	2606.677E 6969.880N		2605.700E 6963.862N		2568.232E 6733.574N		2567.213E 6735.414N		2448.839E 7008.673N		2434.820E 7010.949N		2498.729E 6695.069N		2497.710E 6696.909N		
CHAINAGE	0.000	13.404	14.286	16.293	31.569	0.000	5.230	6.097		0.000	0.888	2.103		0.000	13.320	14.203		0.000	0.888	2.103		
LINE	40			41		42				44				46								

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 12 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 12 OF 18

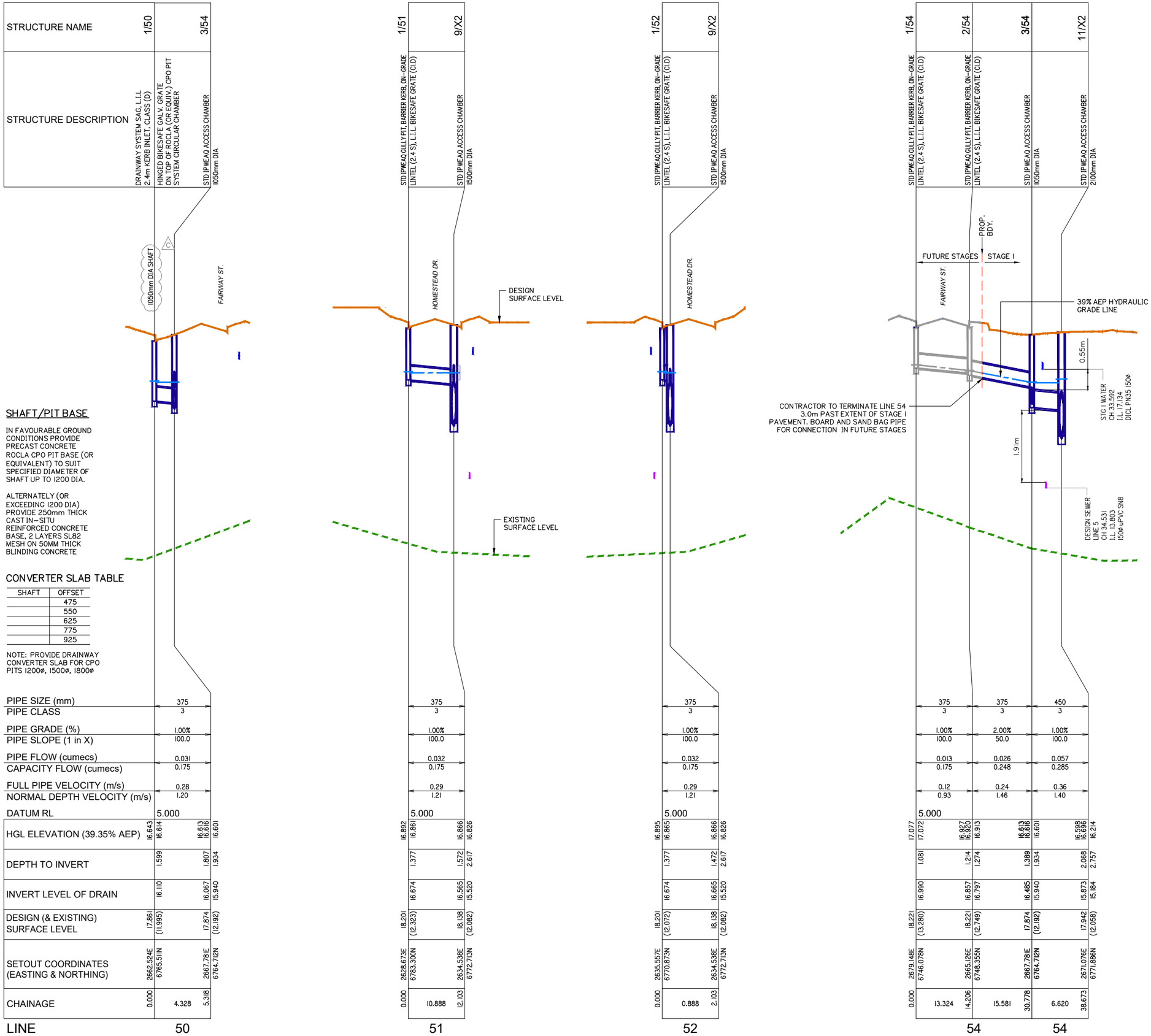
Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020
Drawing No:	5941 ENG OPW1 521
Rev. No:	D



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
	475
	550
	625
	775
	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 13 OF 18

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 13 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

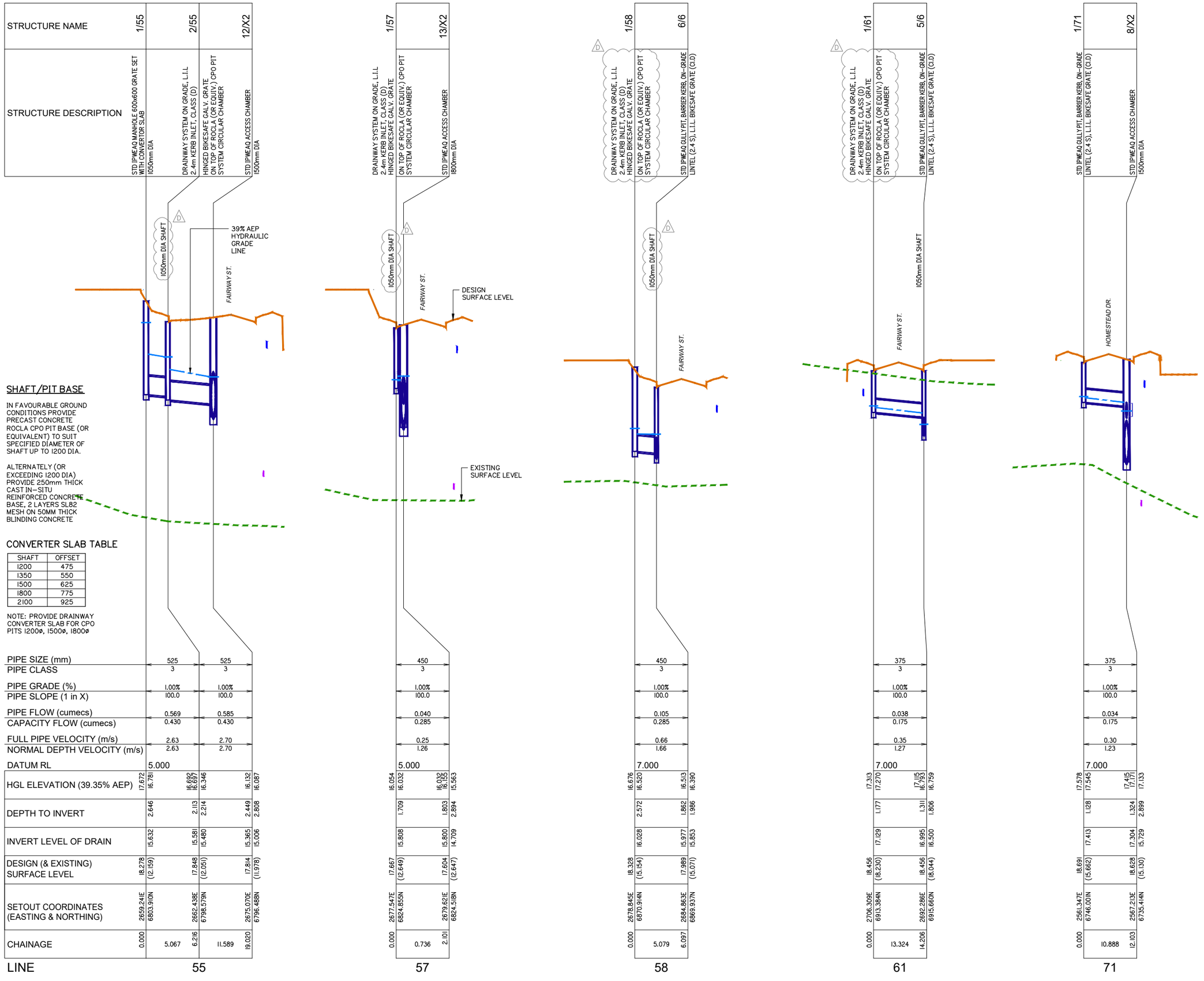
SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020
Drawing No:	5941 ENG OPW1 522
Rev. No:	D

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg



STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 14 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 14 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

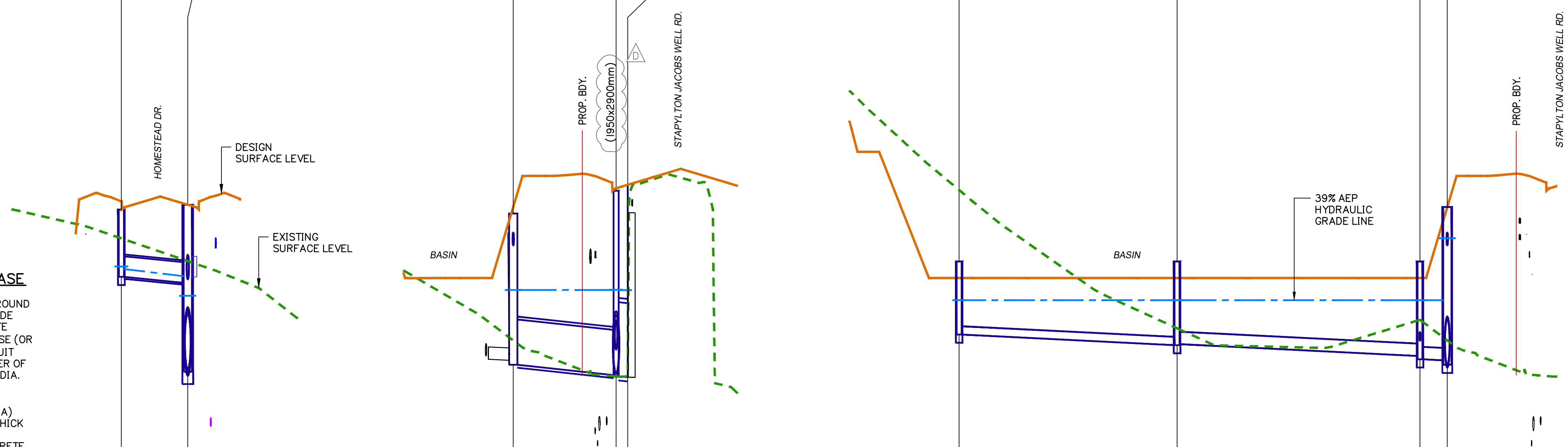
Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 523
Rev. No: D

STRUCTURE NAME	1/72	7/X2
STRUCTURE DESCRIPTION	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S), LIP IN LINE, GRATE(D)	STD IPWEA ACCESS CHAMBER 1500mm DIA

STRUCTURE NAME	1/100	2/100	3/100
STRUCTURE DESCRIPTION	GRATED FIELD INLET (SPECIAL) 1500x2835mm CHAMBER (IN BASIN) HIGH FLOW OUTLET STRUCTURE w/ ORIFICE	DRAINWAY SYSTEM ON GRADE, L.I.L 3T/IC KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF SPECIAL OVERSIZE CHAMBER 1950x2900mm	CONNECTION TO EXISTING CATTLE 'CREEP' CONSTRUCT CONCRETE ENDWALL TO FILL RCBC OPENING AND SET 1350ø PIPE INTO WALL

STRUCTURE NAME	1/101	2/101	3/101	1/100
STRUCTURE DESCRIPTION	STD IPWEAQ GRATED FIELD INLET 600x600mm (300mm ABOVE BASIN I.L)	STD IPWEAQ GRATED FIELD INLET 600x600mm (300mm ABOVE BASIN I.L)	STD IPWEAQ GRATED FIELD INLET 600x600mm (300mm ABOVE BASIN I.L)	GRATED FIELD INLET (SPECIAL) 1500x2835mm IN BASIN HIGH FLOW OUTLET STRUCTURE w/ ORIFICE



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN–SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

LINE 72

	1/72	Pipe	7/X2
PIPE SIZE (mm) / PIPE CLASS		375 / 3	
PIPE GRADE (%) / PIPE SLOPE (1 in X)		1.00% / 100.0	
PIPE FLOW (cumecs) / CAPACITY FLOW (cumecs)		0.040 / 0.175	
FULL PIPE VELOCITY (m/s) / NORMAL DEPTH VELOCITY (m/s)		0.36 / 1.28	
DATUM RL	7.000		
HGL ELEVATION (39.35% AEP)	18.009 / 17.964		17.833 / 17.476 / 17.440
DEPTH TO INVERT	1.227		1.422 / 3.043
INVERT LEVEL OF DRAIN	17.821		17.712 / 16.091
DESIGN (& EXISTING) SURFACE LEVEL	19.198 (18.522)		19.135 (18.108)
SETOUT COORDINATES (EASTING & NORTHING)	2491.845E 6707.496N		2497.710E 6696.909N
CHAINAGE	0.000	10.888	12.103

LINE 100

	1/100	Pipe	2/100	Pipe	3/100
PIPE SIZE (mm) / PIPE CLASS		(2x)825 / 3		1350 / 3	
PIPE GRADE (%) / PIPE SLOPE (1 in X)		1.08% / 92.3		1.08% / 92.2	
PIPE FLOW (cumecs) / CAPACITY FLOW (cumecs)		0.000 / 2.990		0.295 / 5.559	
FULL PIPE VELOCITY (m/s) / NORMAL DEPTH VELOCITY (m/s)		0.00 / 0.00		0.21 / 2.06	
DATUM RL	-5.000				
HGL ELEVATION (39.35% AEP)	5.583		5.583 / 5.584 / 5.578		5.578
DEPTH TO INVERT	2.756		3.360 / 3.380		3.508 / 3.508
INVERT LEVEL OF DRAIN	4.219		4.029 / 4.009		3.991 / 3.991
DESIGN (& EXISTING) SURFACE LEVEL	7.093 (4.662)		7.436 (4.008)		7.499 (4.006)
SETOUT COORDINATES (EASTING & NORTHING)	2241.191E 7038.970N		2230.246E 7054.184N		2229.019E 7055.913N
CHAINAGE	0.000	17.527	18.742	1.655	20.863

LINE 101

	1/101	Pipe	2/101	Pipe	3/101	Pipe	1/100
PIPE SIZE (mm) / PIPE CLASS		150 / uPVC SN10		225 / uPVC SN10		225 / uPVC SN10	
PIPE GRADE (%) / PIPE SLOPE (1 in X)		0.50% / 200.0		0.50% / 200.0		0.50% / 200.0	
PIPE FLOW (cumecs) / CAPACITY FLOW (cumecs)		0.000 / 0.013		0.000 / 0.038		0.000 / 0.037	
FULL PIPE VELOCITY (m/s) / NORMAL DEPTH VELOCITY (m/s)		0.00 / 0.00		0.00 / 0.00		0.00 / 0.00	
DATUM RL	-5.000						
HGL ELEVATION (39.35% AEP)	5.395		5.395		5.395		5.395 / 6.524
DEPTH TO INVERT	1.330		1.524 / 1.504		1.721 / 1.781		2.793 / 2.874
INVERT LEVEL OF DRAIN	4.770		4.576 / 4.596		4.379 / 4.319		4.300 / 4.219
DESIGN (& EXISTING) SURFACE LEVEL	6.100 (7.404)		6.100 (4.884)		6.100 (5.038)		7.093 (4.662)
SETOUT COORDINATES (EASTING & NORTHING)	2312.286E 7083.948N		2280.038E 7060.768N		2244.088E 7034.928N		2241.191E 7038.970N
CHAINAGE	0.000	38.814	39.714	43.373	83.987	3.772	88.960

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 15 OF 18

gassman development perspectives est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client: FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

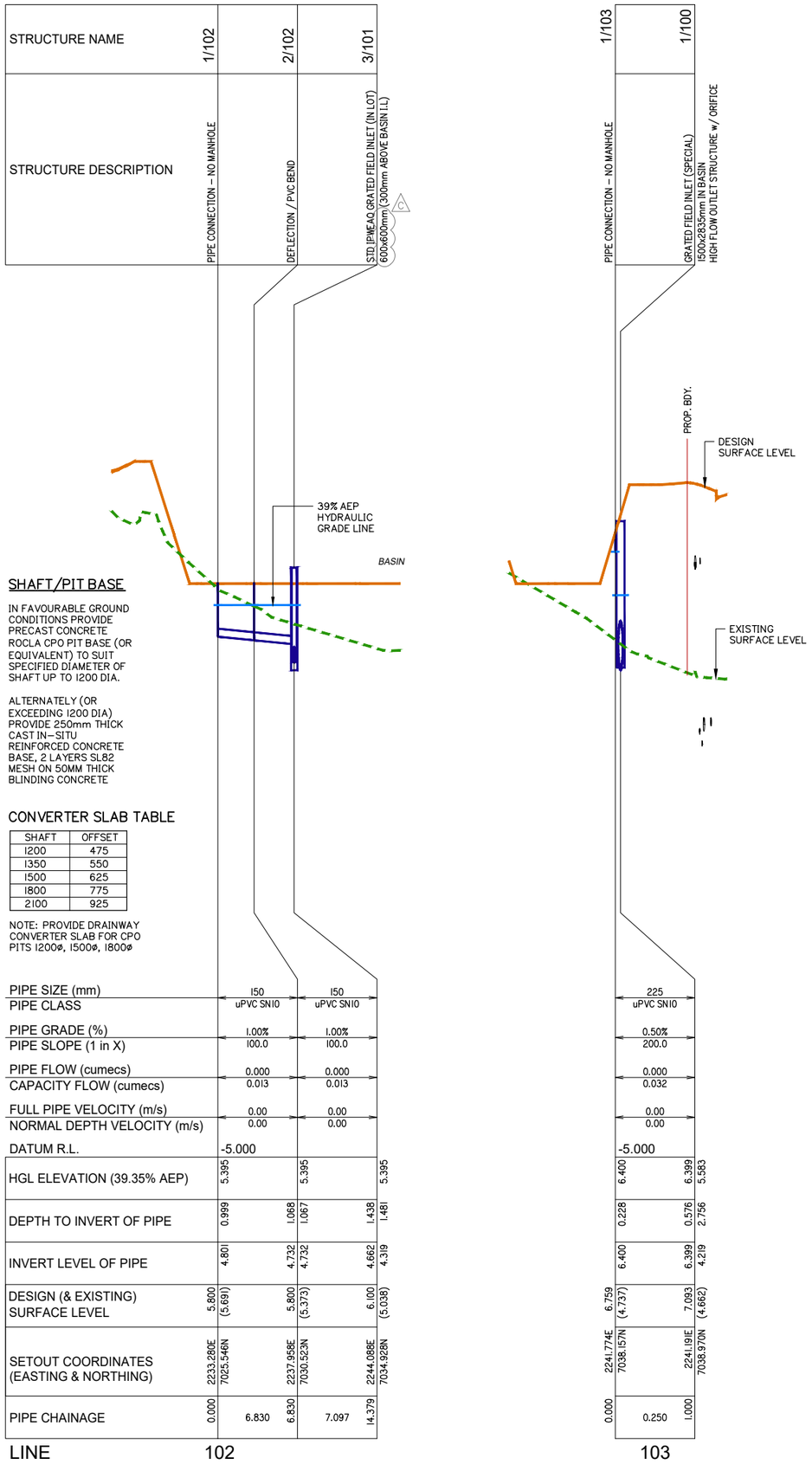
DRAWING TITLE
STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 15 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40
VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 524
Rev. No: D



SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 16 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 16 OF 18

Issue	Date	Description	DRN	CHK
C	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

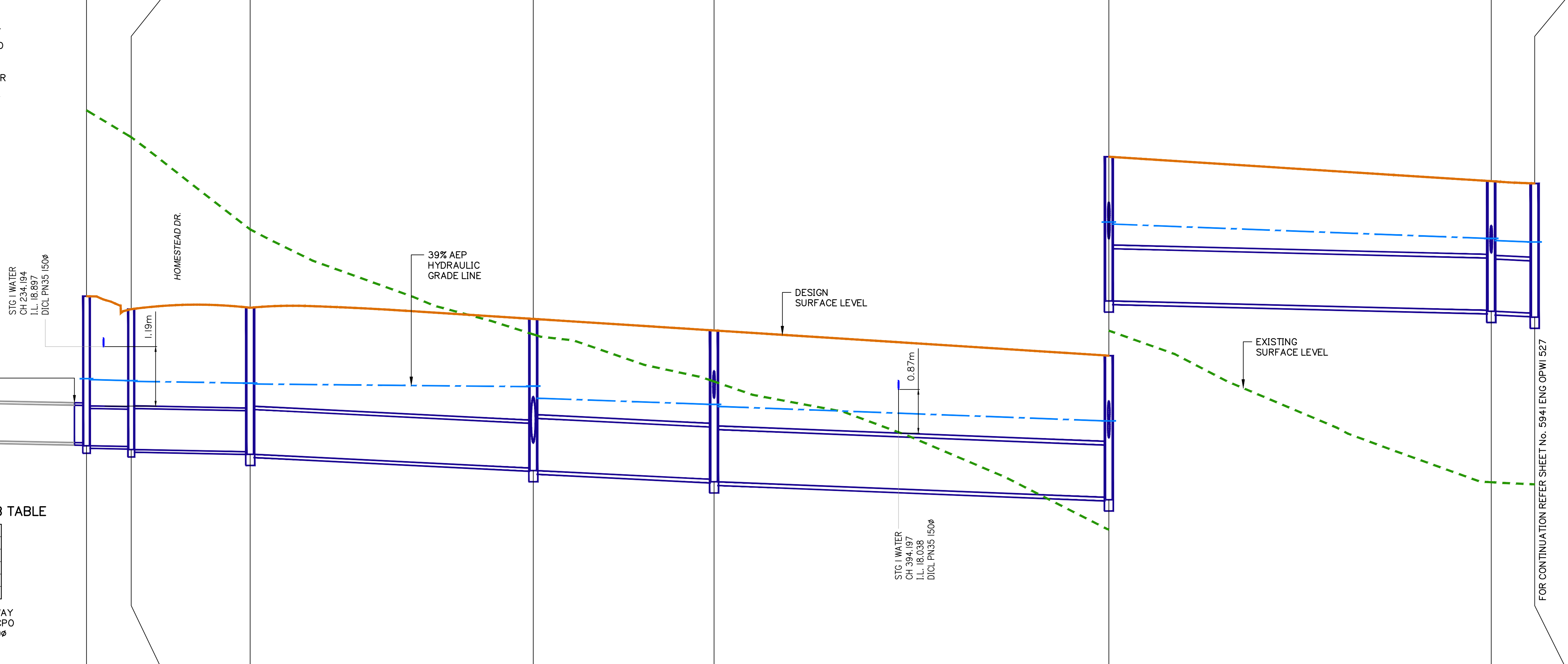
Drawing No: 5941 ENG OPW1 525
Rev. No: C

STRUCTURE NAME	3/X2	4/X2	5/X2	6/X2	7/X2	8/X2	9/X2	10/X2
STRUCTURE DESCRIPTION	STD IPWEAQ MANHOLE 600x600 GRATE SET WITH CONVERTOR SLAB 1200mm DIA PROVIDE 2.44m LENGTH STUB FOR FUTURE CONNECTION	STD IPWEAQ ACCESS CHAMBER 1200mm DIA	STD IPWEAQ ACCESS CHAMBER 1350mm DIA	STD IPWEAQ ACCESS CHAMBER 1500mm DIA (D)	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ ACCESS CHAMBER 1500mm DIA

SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN–SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE



CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

	3/X2 – 4/X2	4/X2 – 5/X2	5/X2 – 6/X2	6/X2 – 7/X2	7/X2 – 8/X2	8/X2 – 9/X2	9/X2 – 10/X2
PIPE SIZE (mm)	750	825	900	1050	1050	1050	1050
PIPE CLASS	3	3	3	3	3	3	3
PIPE GRADE (%)	0.20%	0.20%	0.50%	0.50%	0.40%	0.25%	0.50%
PIPE SLOPE (1 in X)	500.0	500.0	200.0	200.0	250.0	400.0	200.0
PIPE FLOW (cumecs)	0.572	0.570	0.564	1.636	1.671	1.690	1.701
CAPACITY FLOW (cumecs)	0.498	0.642	1.281	1.932	1.728	1.366	1.932
FULL PIPE VELOCITY (m/s)	1.29	1.07	0.89	1.89	1.93	1.95	1.96
NORMAL DEPTH VELOCITY (m/s)	1.29	1.36	1.95	2.50	2.27	1.95	2.52
PIPE CHAINAGE (length)	7.871	22.742	55.629	35.034	78.106	75.617	7.390

DATUM R.L. 9.000 (from 3/X2); 5.000 (from 8/X2)

	3/X2	4/X2	5/X2	6/X2	7/X2	8/X2	9/X2	10/X2
HGL ELEVATION (39.35% AEP)	18.166 / 18.147	18.126 / 18.111	18.076 / 18.058	18.004 18.015 / 17.773	17.647 / 17.608	17.316 / 17.275	16.985 / 16.942	16.914
DEPTH TO INVERT OF PIPE	2.724 / 2.784	2.763 / 2.823	2.897 / 2.947	3.000 / 3.050	2.993 / 3.043	2.849 / 2.899	2.597 / 2.617	2.608
INVERT LEVEL OF PIPE	16.876 / 16.816	16.800 / 16.740	16.695 / 16.645	16.367 / 16.317	16.141 / 16.091	15.779 / 15.729	15.540 / 15.520	15.483
DESIGN (& EXISTING) SURFACE LEVEL	19.823 (23.563)	19.563 (23.021)	19.592 (21.167)	19.367 (19.056)	19.135 (18.108)	18.628 (15.130)	18.138 (12.082)	18.092 (12.040)
SETOUT COORDINATES (EASTING & NORTHING)	2384.070E 6652.630N	2392.470E 6655.849N	2416.043E 6651.664N	2465.884E 6679.277N	2497.710E 6696.909N	2567.213E 6735.414N	2634.538E 6772.713N	2642.323E 6776.685N
PIPE CHAINAGE	230.762	239.758	263.699	320.678	357.062	436.518	513.485	522.225

LINE X2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 17 OF 18

gassman development perspectives est 1985

planning | environment | landscape | engineering | survey

T: 3807 3333 | F: 3287 5461 | www.gassman.com.au

Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives

All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 17 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

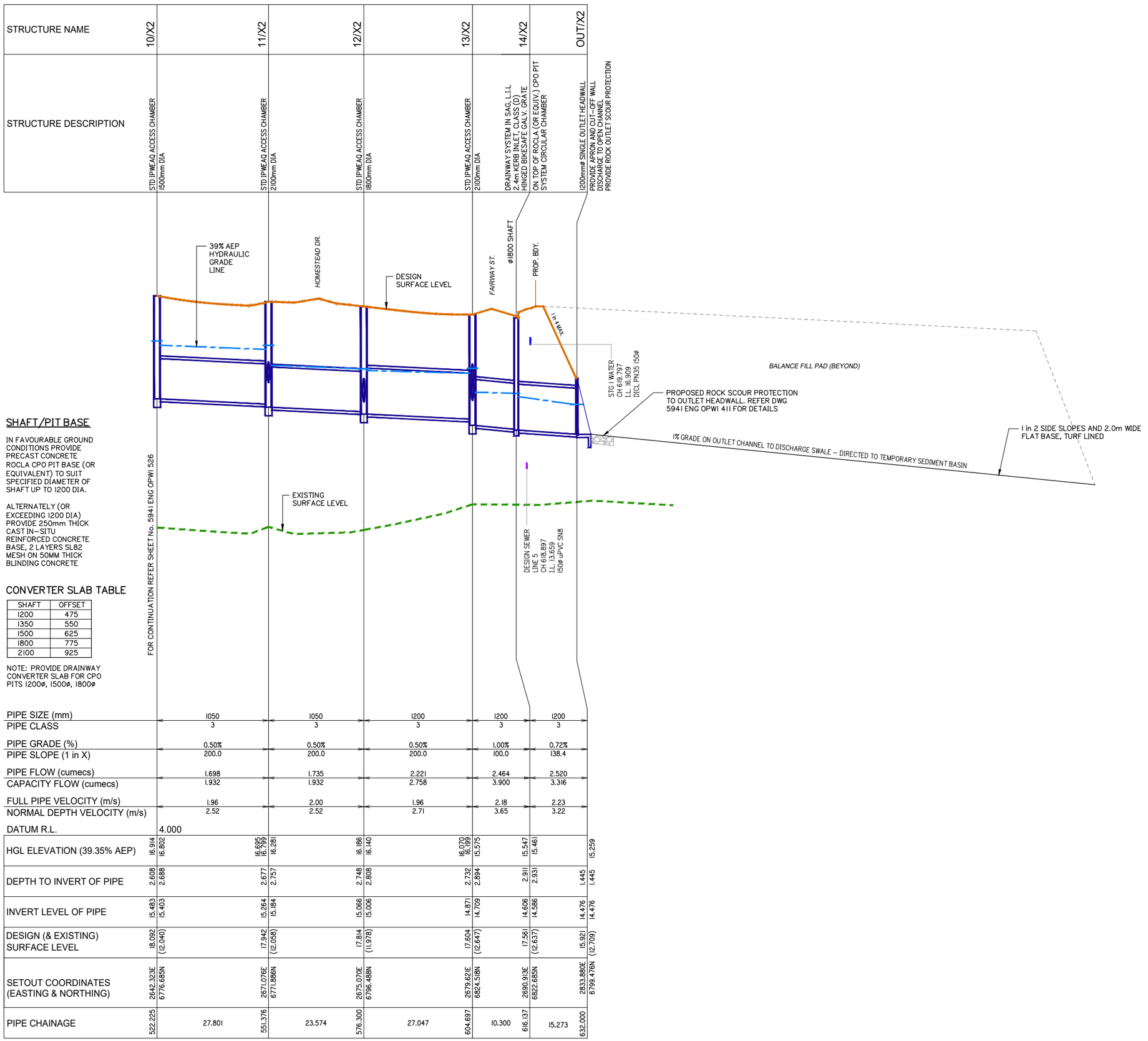
SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	(signature)
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 526 Rev. No: D



STRUCTURE NAME	10/X2	11/X2	12/X2	13/X2	14/X2	OUT/X2
STRUCTURE DESCRIPTION	STD IPWEAQ ACCESS CHAMBER 1500mm DIA	STD IPWEAQ ACCESS CHAMBER 2100mm DIA	STD IPWEAQ ACCESS CHAMBER 1800mm DIA	STD IPWEAQ ACCESS CHAMBER 2100mm DIA	DRAINWAY SYSTEM IN SAG, L.I.L 2.4m KERB INLET, CLASS (D) HINGED BIKESAFE GALV. GRATE ON TOP OF ROCLA (OR EQUIV.) CPO PIT SYSTEM CIRCULAR CHAMBER	1200mmø SINGLE OUTLET HEADWALL PROVIDE APRON AND CUT–OFF WALL DISCHARGE TO OPEN CHANNEL PROVIDE ROCK OUTLET SCOUR PROTECTION
PIPE SIZE (mm)		1050	1050	1200	1200	1200
PIPE CLASS		3	3	3	3	3
PIPE GRADE (%)		0.50%	0.50%	0.50%	1.00%	0.72%
PIPE SLOPE (1 in X)		200.0	200.0	200.0	100.0	138.4
PIPE FLOW (cumecs)		1.698	1.735	2.221	2.464	2.520
CAPACITY FLOW (cumecs)		1.932	1.932	2.758	3.900	3.316
FULL PIPE VELOCITY (m/s)		1.96	2.00	1.96	2.18	2.23
NORMAL DEPTH VELOCITY (m/s)		2.52	2.52	2.71	3.65	3.22
DATUM R.L.	4.000					
HGL ELEVATION (39.35% AEP)	16.914 / 16.802	16.685 / 16.593	16.281	16.186 / 16.140	16.070 / 16.199 / 15.575	15.547 / 15.461 / 15.259
DEPTH TO INVERT OF PIPE	2.608 / 2.688	2.677	2.757	2.748 / 2.808	2.732 / 2.894	2.911 / 2.931 / 1.445 / 1.445
INVERT LEVEL OF PIPE	15.483 / 15.403	15.264 / 15.184	15.066 / 15.006	14.871 / 14.709	14.606 / 14.586 / 14.476 / 14.476	
DESIGN (& EXISTING) SURFACE LEVEL	18.092 / (18.040)	17.942 / (18.058)	17.814 / (18.978)	17.604 / (18.647)	17.561 / (18.637)	15.921 / (18.709)
SETOUT COORDINATES (EASTING & NORTHING)	2642.323E 6776.685N	2671.076E 6771.886N	2675.070E 6796.488N	2679.621E 6824.518N	2690.913E 6822.685N	2833.880E 6799.476N
PIPE CHAINAGE	522.225	27.801 / 551.376	23.574 / 576.300	27.047 / 604.697	10.300 / 616.137	15.273 / 632.000

LINE X2

SHAFT/PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE ROCLA CPO PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN–SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR CPO PITS 1200ø, 1500ø, 1800ø

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 18 OF 18

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 510.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 18 OF 18

Issue	Date	Description	DRN	CHK
D	10-09-2020	RESPONSE TO RFI No. 4	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:50 - Lengths are in Metres. 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	10-09-2020

Drawing No: 5941 ENG OPW1 527
Rev. No: D

STORMWATER DRAINAGE NETWORK - 39.35% AEP (2 YR ARI) DESIGN SHEET

LOCATION		SUB-CATCHMENT RUNOFF					INLET DESIGN							
STRUCTURE No.	DRAIN SECTION	Tc SUB-CATCHMENT TIME OF CONC. min	I RAINFALL INTENSITY mm/h	A SUB-CATCHMENT AREA ha	CA EQUIVALENT AREA ha	Qc SUB-CATCHMENT DISCHARGE L/s	Qa FLOW IN K&C (INC. BYPASS) L/s	ROAD GRADE AT INLET %	ROAD XFALL AT INLET %	INLET TYPE	INLET CURVE	Qg FLOW INTO INLET L/s	Qb BYPASS FLOW L/s	BYPASS STRUCTURE No.
1/1	1/1 to 2/1	5	138	0.058	0.046	18	18	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	18	0	1/11
2/1	2/1 to 3/1	5	138	0.077	0.061	23	23	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	23	0	3/1
3/1	3/1 to 4/1	5	138	0.044	0.035	13	13	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	13	0	4/1
4/1	4/1 to 5/1	5	138	0.044	0.035	13	13	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	13	0	2/14
5/1	5/1 to 6/1									ACC_CHA_1350				
6/1	6/1 to 7/1									ACC_CHA_1050				
7/1	7/1 to 8/1									ACC_CHA_1050				
8/1	8/1 to 9/1									ACC_CHA_1050				
9/1	9/1 to 10/1									ACC_CHA_1800				
10/1	10/1 to 11/1									ACC_CHA_1800				
11/1	11/1 to 12/1									ACC_CHA_2100				
12/1	12/1 to 13/1									ACC_CHA_2100				
13/1										HW outlet				
1/2	1/2 to 2/2	5	138	0.362	0.287	110	110			900x900		110	0	2/2
2/2	2/2 to 3/2	5	138	0.033	0.026	10	10	2.82	3	GRADE_BK_2400_Lip	2G 3X	10	0	1/40
3/2	3/2 to 4/2	5	138	0.017	0.014	5	5	1	3	GRADE_BK_2400_Lip	1G 3X	5	0	4/2
4/2	4/2 to 5/2	5	138	0.048	0.038	15	15	3.17	3	GRADE_BK_2400_Lip	3G 3X	15	0	5/2
5/2	5/2 to 6/2	5	138	0.022	0.017	7	7	3.17	3	GRADE_BK_2400_Lip	3G 3X	7	0	6/2
6/2	6/2 to 7/2	5	138	0.028	0.022	8	8	3.17	3	GRADE_BK_2400_Lip	3G 3X	8	0	2/34
7/2	7/2 to 8/2									ACC_CHA_1200				
8/2	8/2 to 9/2									ACC_CHA_1200				
9/2	9/2 to 10/2									ACC_CHA_1200				
10/2	10/2 to 11/2									ACC_CHA_1200				
11/2	11/2 to 12/2									ACC_CHA_1500				
12/2	12/2 to 13/2									ACC_CHA_1500				
13/2	13/2 to 14/2									ACC_CHA_1500				
14/2	14/2 to 15/2									ACC_CHA_1200				
15/2	15/2 to 16/2									ACC_CHA_1500				
16/2	16/2 to 17/2									ACC_CHA_1500				
17/2	17/2 to 9/1									ACC_CHA_1500				
1/3	1/3 to 2/3	5	138	1.113	0.883	339	339			1200x1200		339	0	2/3
2/3	2/3 to 11/2	5	138	0.140	0.111	43	43	2.98	3	1TCS0_UNCHECKED	2G 3X	43	0	2/30
1/4	1/4 to 2/4	5	138	0.050	0.040	15	15	3.68	3	GRADE_BK_2400_Lip	3G 3X	15	0	1/44
2/4	2/4 to 3/4	5	138	0.062	0.050	19	19	3.68	3	GRADE_BK_2400_Lip	3G 3X	19	0	3/4
3/4	3/4 to 9/2	5	138	0.065	0.052	20	20			SAG_BK_2400_Lip	SAG	20	0	1/32
1/5	1/5 to 2/5	5	138	1.836	1.457	559	559			900x900		559	0	2/5
2/5	2/5 to 5/1	5	138	0.041	0.032	12	13	1	3	GRADE_BK_2400_Lip		13	0	1/15
1/6	1/6 to 2/6	5	138	0.044	0.035	13	13	2.81	3	GRADE_BK_2400_Lip	2G 3X	13	0	1/61
2/6	2/6 to 3/6	5	138	0.035	0.028	11	11	2.81	3	GRADE_BK_2400_Lip	2G 3X	11	0	3/6
3/6	3/6 to 4/6	5	138	0.045	0.036	14	14	2.81	3	GRADE_BK_2400_Lip	2G 3X	14	0	1/40
4/6	4/6 to 5/6									ACC_CHA_1050				
5/6	5/6 to 6/6	5	138	0.050	0.040	15	15	2	3	GRADE_BK_2400_Lip	2G 3X	15	0	6/6
6/6	6/6 to 13/X2	5	138	0.064	0.051	20	20	0.98	3	GRADE_BK_2400_Lip	0.5G 3X	20	0	1/57
1/8	1/8 to 2/1	5	138	0.287	0.228	87	87			900x900		87	0	2/1
1/10	1/10 to 3/1	5	138	0.287	0.228	87	87			900x900		87	0	3/1
1/11	1/11 to 4/1	5	138	0.111	0.088	34	34	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	33	1	2/5
1/12	1/12 to 4/1	5	138	0.287	0.228	87	87			900x900		87	0	4/1
1/14	1/14 to 2/14	5	138	0.287	0.228	87	87			900x900		87	0	5/1
2/14	2/14 to 5/1	5	138	0.043	0.034	13	13	2	3	GRADE_BK_2400_Lip		13	0	2/16
1/15	1/15 to 6/1	5	138	0.066	0.053	20	20	4.5	3	GRADE_BK_2400_Lip	4G 3X	20	0	1/19
1/16	1/16 to 2/16	5	138	0.287	0.228	87	87			900x900		87	0	6/1
2/16	2/16 to 6/1	5	138	0.042	0.033	13	13	4.5	3	GRADE_BK_2400_Lip		13	0	2/18
1/18	1/18 to 2/18	5	138	0.287	0.228	87	87			900x900		87	0	7/1
2/18	2/18 to 7/1	5	138	0.042	0.033	13	13	6	3	GRADE_BK_2400_Lip		13	0	2/20
1/19	1/19 to 8/1	5	138	0.108	0.086	33	33	6	3	GRADE_BK_2400_Lip	4G 3X	32	1	1/26
1/20	1/20 to 2/20	5	138	0.287	0.228	87	87			900x900		87	0	8/1
2/20	2/20 to 8/1	5	138	0.044	0.035	13	13	6	3	GRADE_BK_2400_Lip		13	0	2/21
1/21	1/21 to 2/21	5	138	0.287	0.228	87	87			900x900		87	0	2/21
2/21	2/21 to 9/1	5	138	0.047	0.037	14	14	3	3	GRADE_BK_2400_Lip	3G 3X	14	0	2/22
1/22	1/22 to 2/22	5	138	0.287	0.228	87	87			900x900		87	0	2/22
2/22	2/22 to 10/1	5	138	0.043	0.034	13	13	4.3	3	GRADE_BK_2400_Lip	4G 3X	13	0	2/23
1/23	1/23 to 2/23	5	138	0.248	0.197	75	75			900x900		75	0	2/EXT2
2/23	2/23 to 11/1	5	138	0.029	0.023	9	9	5	3	GRADE_BK_3600_Lip	4G 3X	9	0	2/EXT2
1/24	1/24 to 2/24	5	138	0.056	0.045	17	17	4.3	3	GRADE_BK_2400_Lip	4G 3X	17	0	2/24
2/24	2/24 to 12/1	5	138	0.016	0.013	5	5	5.5	3	GRADE_BK_2400_Lip	4G 3X	5	0	3/EXT2
1/25	1/25 to 2/25	5	138	0.194	0.154	59	59			900x900		59	0	1/25
2/25	2/25 to 17/2	5	138	0.047	0.037	14	14			SAG_BK_2400_Lip	SAG	14	0	1/24
1/26	1/26 to 17/2	5	138	0.183	0.146	56	56			SAG_BK_2400_Lip	SAG	56	0	1/25
1/27	1/27 to 2/27	5	138	0.191	0.151	58	58			900x900		58	0	1/27
2/27	2/27 to 16/2	5	138	0.044	0.035	13	13	0.69	3	GRADE_BK_2400_Lip	0.5G 3X	13	0	1/25

LOCATION	DRAIN DESIGN									HEAD LOSSES								
STRUCTURE No.	Tc CRITICAL TIME OF CONC. min	I RAINFALL INTENSITY mm/hr	CA TOTAL (C x A) ha	Qrat PEAK FLOW L/s	Q PIPE FLOW L/s	L REACH LENGTH m	S PIPE GRADE %	PIPE SIZE mm	PIPE CLASS	Vf=Q/A FULL PIPE VELOCITY m/s	Qcap CAPACITY FLOW L/s	Vcap CAPACITY VELOCITY m/s	Vt TRAVEL VELOCITY m/s	CHART(S) USED	Vf²/2g VELOCITY HEAD m	Ku U/S HEAD LOSS COEFFICIENT	hu U/S HEAD LOSS m	Kw W.S.E COEFFICIENT
1/1	5	138	0.046	18	18	13.324	2	375	3	0.16	248	2.25	1.3	G1	0.001	7	0.009	
2/1	5.05	138	0.334	128	128	39.535	1.25	450	3	0.8	319	2.01	1.89	T10	0.033	2.18	0.072	2.66
3/1	5.4	136	0.597	226	226	39.535	1	450	3	1.42	285	1.79	1.99	T2/T5	0.103	0.75	0.077	
4/1	5.73	134	0.949	355	354	39.379	1	450	3	2.22	285	1.79	2.22	T2/T5	0.253	0.6	0.151	
5/1	5.68	135	2.683	1004	1004	39.265	2.5	600	3	3.55	971	3.44	3.9	T2/T5	0.643	0.57	0.368	
6/1	5.85	134	2.998	1115	1115	39.415	5	600	3	3.94	1374	4.86	5.41	T1/T2	0.794	0.23	0.182	
7/1	5.97	133	3.261	1208	1208	39.415	5	600	3	4.27	1374	4.86	5.48	T8/T10	0.931	1.25	1.161	1.4
8/1	6.09	133	3.612	1332	1331	39.04	5	600	3	4.71	1374	4.86	5.53	T1/T2	1.131	0.25	0.281	
9/1	6.25	132	10.192	3737	3737	38.665	2	1200	3	3.3	5516	4.88	5.24	T4/T8	0.557	0.94	0.522	0.97
10/1	6.33	132	10.439	3816	3816	15.567	2.5	1200	3	3.37	6167	5.45	5.74	T1/T2	0.581	0.21	0.12	
11/1	6.38	131	10.66	3891	3891	10.192	0.1	1200	3	3.44	1233	1.09	3.44	T8/T10	0.346	1.68	0.581	1.92
12/1	6.43	131	10.718	3905	3905	18.157	0.1	(2x)1200	3	1.73	2467	1.09	1.73	T1	0.152	0	0	
13/1																		
1/2	5	138	0.287	110	110	5.23	0.97	375	3	1	173	1.57	1.66	G1	0.051	3.67	0.186	
2/2	5.05	138	0.313	120	120	46.601	0.5	375	3	1.09	124	1.12	1.28	T10	0.06	1.75	0.105	1.97
3/2	5.66	135	0.65	243	243	44.564	1.5	375	3	2.2	215	1.95	2.2	T5	0.248	0.81	0.202	
4/2	6	133	0.997	369	369	18.876	3	450	3	2.32	494	3.11	3.41	T2/T5	0.275	0.6	0.164	
5/2	6.09	133	1.101	406	405	24.757	4	450	3	2.55	570	3.59	3.89	T1/T2	0.331	0.3	0.099	
6/2	6.2	132	1.432	526	526	38.604	3.33	450	3	3.3	521	3.27	3.73	T2	0.557	0.33	0.181	
7/2	5.76	134	2.825	1054	1054	11.316	2	675	3	2.95	1189	3.32	3.75	T5/T8	0.443	0.82	0.361	0.82
8/2	5.81	134	3.308	1232	1232	31.9	3.33	675	3	3.44	1534	4.29	4.76	T1/T2	0.605	0.24	0.146	
9/2	5.92	134	3.525	1308	1308	18.301	2.5	675	3	3.65	1330	3.72	4.23	T1/T2	0.682	0.22	0.148	
10/2	5.99	133	3.552	1315	1314	30.458	3	750	3	2.98	1929	4.37	4.7	T1	0.452	0.2	0.091	
11/2	6.04	133	4.543	1679	1679	21.359	3	825	3	3.14	2487	4.65	4.99	T1/T2	0.503	0.26	0.133	
12/2	5.88	134	5.023	1867	1867	8.805	2	825	3	3.49	2031	3.8	4.31	T2/T5	0.622	0.42	0.259	
13/2	5.91	134	5.023	1864	1864	15.022	2	825	3	3.49	2031	3.8	4.31	T1/T2	0.621	0.24	0.15	
14/2	5.93	134	5.603	2079	2079	11.092	2	825	3	3.89	2031	3.8	4.32	T1/T2	0.771	0.23	0.177	
15/2	5.97	133	5.82	2156	2156	38.067	1	825	3	4.03	1436	2.69	4.03	T1/T2	0.83	0.21	0.175	
16/2	6.13	133	6.008	2213	2213	29.049	1.25	900	3	3.48	2025	3.18	3.48	T1/T2	0.617	0.21	0.129	
17/2	6.27	132	6.348	2326	2327	27.6	1	1050	3	2.69	2732	3.15	3.54	T1/T2	0.368	0.22	0.082	
1/3	5	138	0.883	339	339	6.016	0.5	600	3	1.2	434	1.54	1.7	G1	0.073	3.02	0.221	
2/3	5.06	138	0.995	380	381	10.888	0.5	600	3	1.35	434	1.54	1.73	T2/T5	0.093	0.8	0.074	
1/4	5	138	0.04	15	15	13.324	1	375	3	0.14	175	1.59	0.97	G1	0.001	7	0.007	
2/4	5.23	137	0.089	34	34	41.281	3	375	3	0.31	304	2.75	1.82	G1/T10	0.005	2.82	0.014	3.15
3/4	5.61	135	0.217	81	81	20.135	0.67	375	3	0.74	143	1.3	1.34	T2/T5	0.028	1.34	0.037	
1/5	5	138	1.457	559	559	5.182	0.5	525	3	2.58	304	1.41	2.58	G1	0.34	2.75	0.933	
2/5	5.03	138	1.49	570	571	14.953	0.67	600	3	2.02	502	1.77	2.02	T2/T5	0.208	0.42	0.088	
1/6	5	138	0.035	13	13	13.324	1	375	3	0.12	175	1.59	0.94	G1	0.001	7	0.005	
2/6	5.24	137	0.063	24	24	40.436	3	375	3	0.22	304	2.75	1.64	T10	0.002	2.27	0.005	2.66
3/6	5.65	135	0.099	37	37	31.95	4	375	3	0.34	351	3.18	2.06	T1	0.006	1.66	0.01	
4/6	5.91	134	0.228	85	85	18.468	2	375	3	0.77	248	2.25	2.03	T5/T8	0.03	0.96	0.029	0.99
5/6	5.82	134	0.37	138	137	45.391	1.25	450	3	0.86	319	2.01	1.93	T2/T5	0.038	0.89	0.034	
6/6	5.94	133	0.694	257	256	44.355	1	450	3	1.61	285	1.79	2.03	T2/T5	0.132	0.93	0.123	
1/8	5	138	0.228	87	87	5.229	1	375	3	0.79	175	1.59	1.59	G1	0.032	5.69	0.181	
1/10	5	138	0.228	87	87	5.229	1	375	3	0.79	175	1.59	1.59	G1	0.032	4.3	0.137	
1/11	5	138	0.088	34	33	13.324	1	375	3	0.3	175	1.59	1.22	G1	0.005	7	0.032	
1/12	5	138	0.228	87	87	5.229	1	375	3	0.79	175	1.59	1.59	G1	0.032	4.06	0.13	
1/14	5	138	0.228	87	87	5.229	1	375	3	0.79	175	1.59	1.59	G1	0.032	4.17	0.133	
2/14	5.05	138	0.262	100	100	1.011	1	375	3	0.91	175	1.59	1.64	T1	0.042	0.67	0.028	
1/15	5	138	0.053	20	20	11.113	1	375	3	0.18	175	1.59	1.06	G1	0.002	7	0.012	
1/16	5	138	0.228	87	87	5.229	1	375	3	0.79	175	1.59	1.59	G1	0.032	6.69	0.214	
2/16	5.05	138	0.261	100	100	1.161	1	375	3	0.9	175	1.59	1.64	T1	0.042	0.79	0.033	
1/18	5	138	0.228	87	87	5.229	1	375	3	0.79	175	1.59	1.59	G1	0.032	3.87	0.123	
2/18	5.05	138	0.261	100	100	1.161	1	375	3	0.91	175	1.59	1.64	T1	0.042	0.64	0.027	
1/19	5	138	0.086	33	32	11.113	1	375	3	0.29	175	1.59	1.21	G1	0.004	7	0.031	
1/20	5	138	0.228	87	87	5.182	1	375	3	0.79	175	1.59	1.59	G1	0.032	6.69	0.214	
2/20	5.05	138	0.263	101	101	1.113	1	375	3	0.91	175	1.59	1.64	T1	0.042	0.81	0.034	
1/21	5	138	0.228	87	87	5.182	1	375	3	0.79	175	1.59	1.59	G1	0.032	6.69	0.214	
2/21	5.05	138	0.265	101	101	0.738	1	375	3	0.92	175	1.59	1.64	T1	0.043	0.84	0.036	
1/22	5	138	0.228	87	87	5.182	1	375	3	0.79	175	1.59	1.59	G1	0.032	4.79	0.153	
2/22	5.05	138	0.262	100	100	0.738	1	375	3	0.91	175	1.59	1.64	T1	0.042	0.71	0.03	
1/23	5	138	0.197	75	75	7.973	0.25	525	3	0.35	215	0.99	0.91	G1	0.006	3.27	0.02	
2/23	5.15	137	0.219	84	84	7.112	0.2	600	3	0.3	275	0.97	0.85	T8/T10	0.004	1.72	0.008	1.98
1/24	5	138	0.045	17	17	13.225	5	375	3	0.16	392	3.55	1.78	G1	0.001	7	0.009	
2/24	5.12	137	0.057	22	22	6.028	2	375	3	0.2	248	2.25	1.38	T1/T2	0.002	1.26	0.003	
1/25	5	138	0.154	59	59	5.329	1	375	3	0.53	175	1.59	1.43	G1	0.015	7	0.102	
2/25	5.06	138	0.191	73	73	0.956	1	375	3	0.66	175	1.59	1.52	T1	0.022	1.06	0.024	
1/26	5	138	0.146	56	56	10.956	1	375	3	0.51	175	1.59	1.41	G1	0.013	7	0.093	
1/27	5	138	0.151	58	58	5.182	1	375	3	0.53	175	1.59	1.43	G1	0.014	7	0.099	
2/27	5.06	138	0.187	71	71	0.888	1	375	3	0.65	175	1.59	1.51	T1	0.021	1.04	0.022	

LOCATION	PART FULL										
STRUCTURE No.	hw CHANGE IN W.S.E m	Sf PIPE FRICTION SLOPE %	hf PIPE FRICTION HEAD LOSS m	dn NORMAL DEPTH m	Vn NORMAL DEPTH VEL. m/s	PIPE U/S I.L m	PIPE D/S I.L m	PIPE U/S H.G.L m	PIPE D/S H.G.L m	W.S.E m	GRATE LEVEL m
1/1	0.009	0.45	0.092	0.068	1.3	18.283	18.016	18.377	18.317	18.386	19.411
2/1	0.088	0.2	0.079	0.198	1.89	17.672	17.178	18.245	18.166	18.333	19.411
3/1	0.077	0.63	0.247	0.302	1.99	17.158	16.762	18.089	17.842	18.166	19.05
4/1	0.151	1.54	0.606	0.45	2.22	16.742	16.349	17.691	17.085	17.842	18.676
5/1	0.368	2.67	0.928	0.513	3.9	16.137	15.155	16.717	15.668	17.085	18.312
6/1	0.182	3.77	1.494	0.411	5.41	14.791	12.82	15.378	13.892	15.56	17.057
7/1	1.3	4.34	1.719	0.437	5.48	12.141	10.17	12.731	11.019	14.031	14.802
8/1	0.281	4.7	1.834	0.476	5.53	9.695	7.743	10.738	8.904	11.019	12.374
9/1	0.541	1	0.481	0.724	5.24	7.336	6.563	8.382	7.995	8.923	10.657
10/1	0.12	0.96	0.149	0.683	5.74	6.543	6.154	7.875	7.726	7.995	9.15
11/1	0.664	1.59	0.054	1.2	3.44	6.048	6.038	7.144	6.982	7.808	8.345
12/1	0	0.92	0.06	1.2	1.73	6.018	6	6.935	6.769	6.935	8.058
13/1										6.769	7.45
1/2	0.186	0.39	0.021	0.217	1.66	18.113	18.062	18.888	18.868	19.075	20.06
2/2	0.119	0.47	0.218	0.297	1.28	17.883	17.65	18.762	18.545	18.881	19.357
3/2	0.202	1.92	0.857	0.375	2.2	17.63	16.962	18.343	17.486	18.545	19.608
4/2	0.164	1.74	0.353	0.29	3.41	16.912	16.345	17.322	16.994	17.486	18.458
5/2	0.099	2.02	0.5	0.28	3.89	16.264	15.274	16.895	16.396	16.994	17.831
6/2	0.181	3.4	1.311	0.373	3.73	15.084	13.798	16.214	14.904	16.396	17.018
7/2	0.364	1.57	0.178	0.494	3.75	13.603	13.376	14.542	14.365	14.907	15.85
8/2	0.146	2.15	0.685	0.458	4.76	13.278	12.217	14.219	13.534	14.365	15.457
9/2	0.148	2.42	0.443	0.544	4.23	12.197	11.74	13.386	12.943	13.534	14.558
10/2	0.091	1.39	0.424	0.454	4.7	11.633	10.719	12.852	12.427	12.943	13.872
11/2	0.133	1.37	0.292	0.497	4.99	10.569	9.928	12.294	12.002	12.427	12.924
12/2	0.259	1.69	0.149	0.623	4.31	9.828	9.652	11.744	11.595	12.002	12.264
13/2	0.15	1.69	0.253	0.623	4.31	9.572	9.272	11.445	11.191	11.595	12.021
14/2	0.177	2.09	0.232	0.695	4.32	9.097	8.875	11.014	10.782	11.191	11.562
15/2	0.175	2.25	0.858	0.825	4.03	8.774	8.394	10.607	9.749	10.782	11.273
16/2	0.129	1.49	0.434	0.9	3.48	8.292	7.929	9.62	9.186	9.749	10.829
17/2	0.082	0.73	0.2	0.745	3.54	7.849	7.573	9.104	8.904	9.186	10.64
1/3	0.221	0.3	0.018	0.399	1.7	10.871	10.841	12.562	12.544	12.783	13.562
2/3	0.074	0.38	0.042	0.436	1.73	10.761	10.707	12.469	12.427	12.544	12.838
1/4	0.007	1.1	0.128	0.075	0.97	14.463	14.33	14.55	14.404	14.557	15.607
2/4	0.015	1.81	0.792	0.085	1.82	14.23	12.991	14.362	13.614	14.377	15.607
3/4	0.037	0.22	0.043	0.203	1.34	12.878	12.744	13.577	13.534	13.614	14.266
1/5	0.933	1.69	0.087	0.525	2.58	16.446	16.421	17.39	17.302	18.323	18.645
2/5	0.088	0.86	0.129	0.6	2.02	16.351	16.251	17.214	17.085	17.302	18.398
1/6	0.005	1.09	0.129	0.07	0.94	19.744	19.611	19.826	19.681	19.831	20.803
2/6	0.006	2.96	1.209	0.071	1.64	19.551	18.338	19.661	18.465	19.668	20.803
3/6	0.01	4.15	1.217	0.082	2.06	18.318	17.04	18.456	17.131	18.465	19.643
4/6	0.03	1.68	0.348	0.151	2.03	16.89	16.52	17.103	16.793	17.132	18.849
5/6	0.034	0.54	0.315	0.206	1.93	16.5	15.933	16.759	16.513	16.793	18.306
6/6	0.123	0.81	0.358	0.333	2.03	15.853	15.409	16.39	16.032	16.513	17.839
1/8	0.181	0.25	0.013	0.187	1.59	17.837	17.785	18.33	18.317	18.511	19.806
1/10	0.137	0.25	0.013	0.187	1.59	17.477	17.425	18.179	18.166	18.316	19.452
1/11	0.032	0.02	0.004	0.11	1.22	17.548	17.415	17.844	17.842	17.876	18.676
1/12	0.13	0.25	0.013	0.187	1.59	17.103	17.051	17.855	17.842	17.985	19.07
1/14	0.133	0.25	0.013	0.187	1.59	16.401	16.348	17.13	17.117	17.263	18.642
2/14	0.028	0.33	0.003	0.203	1.64	16.328	16.318	17.088	17.085	17.117	18.225
1/15	0.012	1.14	0.105	0.086	1.06	15.793	15.682	15.894	15.768	15.906	16.971
1/16	0.214	0.22	0.012	0.187	1.59	15.248	15.196	15.608	15.597	15.821	17.416
2/16	0.033	0.32	0.004	0.203	1.64	15.166	15.154	15.564	15.56	15.597	16.97
1/18	0.123	0.25	0.013	0.187	1.59	13.142	13.089	13.935	13.922	14.059	15.061
2/18	0.027	0.32	0.004	0.203	1.64	13.059	13.048	13.896	13.892	13.922	14.715
1/19	0.031	1.18	0.103	0.109	1.21	11.059	10.948	11.188	11.057	11.219	12.287
1/20	0.214	0.2	0.012	0.187	1.59	10.713	10.661	11.067	11.057	11.281	12.629
2/20	0.034	0.33	0.004	0.204	1.64	10.631	10.62	11.022	11.019	11.057	12.286
1/21	0.214	1.31	0.049	0.187	1.59	8.948	8.896	9.165	9.097	9.378	10.945
2/21	0.036	4.98	0	0.205	1.64	8.827	8.819	9.061	9.024	9.097	10.571
1/22	0.153	0.25	0.013	0.187	1.59	7.44	7.388	8.04	8.027	8.193	9.49
2/22	0.03	0.33	0.002	0.203	1.64	7.319	7.311	7.998	7.995	8.027	9.064
1/23	0.02	0.03	0.002	0.215	0.91	6.234	6.214	7.737	7.735	7.758	9.482
2/23	0.009	0.02	0.001	0.227	0.85	6.144	6.13	7.727	7.726	7.736	7.808
1/24	0.009	5.3	0.572	0.053	1.78	7.722	7.06	7.815	7.114	7.823	9.027
2/24	0.003	-0.32	0.014	0.075	1.38	6.81	6.69	6.916	6.935	6.918	8.335
1/25	0.102	1.48	0.044	0.15	1.43	9.138	9.084	9.314	9.235	9.416	11.037
2/25	0.024	2.63	0.007	0.169	1.52	9.014	9.004	9.211	9.186	9.235	10.554
1/26	0.093	1.24	0.1	0.146	1.41	9.17	9.06	9.342	9.207	9.436	10.554
1/27	0.099	0.11	0.006	0.149	1.43	9.332	9.28	9.778	9.773	9.877	11.255
2/27	0.022	0.17	0.001	0.167	1.51	9.21	9.201	9.75	9.749	9.773	10.743

39% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 1 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 550.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
39% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 1 OF 2

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
NOT APPLICABLE

Scale at A1:	NOT APPLICABLE
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 550
Rev. No: B

STORMWATER DRAINAGE NETWORK - 39.35% AEP (2 YR ARI) DESIGN SHEET

LOCATION / SUB-CATCHMENT RUNOFF / INLET DESIGN

STRUCTURE No.	DRAIN SECTION	Tc SUB-CATCHMENT TIME OF CONC. min	I RAINFALL INTENSITY mm/h	A SUB-CATCHMENT AREA ha	CA EQUIVALENT AREA ha	Qc SUB-CATCHMENT DISCHARGE L/s	Qa FLOW IN K&C (INC. BYPASS) L/s	ROAD GRADE AT INLET %	ROAD XFALL AT INLET %	INLET TYPE	INLET CURVE	Qg FLOW INTO INLET L/s	Qb BYPASS FLOW L/s	BYPASS STRUCTURE No.
1/29	1/29 to 2/29	5	138	0.228	0.181	69	69			900x900		69	0	2/29
2/29	2/29 to 15/2	5	138	0.045	0.035	14	14	1.2	3	GRADE_BK_2400_Lip	1G 3X	14	0	1/27
1/30	1/30 to 2/30	5	138	0.679	0.539	207	207			1200x1200		207	0	2/30
2/30	2/30 to 14/2	5	138	0.058	0.046	18	18	2.8	3	GRADE_BK_2400_Lip	2G 3X	18	0	1/26
1/31	1/31 to 2/31	5	138	0.588	0.467	179	179			1200x1200		179	0	2/31
2/31	2/31 to 12/2	5	138	0.060	0.048	18	18	2.98	3	GRADE_BK_2400_Lip	2G 3X	18	0	2/29
1/32	1/32 to 10/2	5	138	0.033	0.027	10	10	2.98	3	GRADE_BK_2400_Lip	2G 3X	10	0	2/31
1/33	1/33 to 2/33	5	138	3.839	3.048	1168	1168			1200x1200		1168	0	2/33
2/33	2/33 to 6/X2	5	138	0.114	0.090	35	35	0.64	3	1TCS0_UNCHECKED	0.5G 3X	35	0	1/46
1/34	1/34 to 2/34	5	138	0.549	0.436	167	167			900x900		167	0	2/34
2/34	2/34 to 8/2	5	138	0.057	0.045	17	17	3.17	3	GRADE_BK_2400_Lip	3G 3X	17	0	1/44
1/35	1/35 to 2/35	5	138	1.710	1.358	521	521			1200x1200		521	0	2/35
2/35	2/35 to 7/2	5	138	0.090	0.071	27	28	3.17	3	GRADE_BK_2400_Lip	3G 3X	28	0	2/3
1/36	1/36 to 6/2	5	138	0.387	0.307	118	118			1200x1200		118	0	6/2
1/38	1/38 to 5/2	5	138	0.108	0.086	33	33	3.17	3	GRADE_BK_2400_Lip	3G 3X	32	1	2/35
1/39	1/39 to 4/2	5	138	0.387	0.307	118	118			900x900		118	0	4/2
1/40	1/40 to 2/40	5	138	0.080	0.063	24	24			SAG_BK_2400_Lip	SAG	24	0	2/40
2/40	2/40 to 4/6	5	138	0.082	0.065	25	25	0.6	3	GRADE_BK_2400_Lip		25	0	5/6
1/41	1/41 to 3/2	5	138	0.404	0.321	123	123			900x900		123	0	3/2
1/42	1/42 to 8/X2	5	138	0.109	0.086	33	33	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	32	1	1/52
1/44	1/44 to 3/4	5	138	0.096	0.076	29	29			SAG_BK_2400_Lip	SAG	29	0	3/4
1/46	1/46 to 7/X2	5	138	0.050	0.040	15	15	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	15	0	1/42
1/50	1/50 to 3/54	5	138	0.100	0.079	30	31			SAG_BK_2400_Lip	SAG	31	0	1/57
1/51	1/51 to 9/X2	5	138	0.106	0.084	32	33	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	32	1	2/55
1/52	1/52 to 9/X2	5	138	0.106	0.084	32	33	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	32	1	1/50
1/54	1/54 to 2/54	5	138	0.043	0.034	13	13	0.85	3	GRADE_BK_2400_Lip		13	0	14/X2
2/54	2/54 to 3/54	5	138	0.043	0.034	13	13	0.85	3	GRADE_BK_2400_Lip		13	0	1/50
3/54	3/54 to 11/X2									ACC_CHA_1050				
1/55	1/55 to 2/55	5	138	1.869	1.484	569	569			1200x1200		569	0	1/57
2/55	2/55 to 12/X2	5	138	0.053	0.042	16	17	0.62	3	GRADE_BK_2400_Lip	0.5G 3X	17	0	1/57
1/57	1/57 to 13/X2	5	138	0.130	0.103	40	40			SAG_BK_4800_Lip	SAG	40	0	14/X2
1/58	1/58 to 6/6	5	138	0.346	0.275	105	105			1200x1200		105	0	1/57
1/61	1/61 to 5/6	5	138	0.130	0.103	40	40	2	3	GRADE_BK_2400_Lip	2G 3X	38	1	14/X2
1/71	1/71 to 8/X2	5	138	0.109	0.086	33	34	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	34	1	1/51
1/72	1/72 to 7/X2	5	138	0.134	0.106	41	41	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	40	1	1/71
1/100	1/100 to 2/100	0	0	0.000	0.000	0	0			CHAMBER ONLY		0	0	2/100
2/100	2/100 to 3/100	5	138	0.072	0.058	22	22	2	3	3TCS0_UNCHECKED	2G 3X	22	0	3/EXT2
3/100										HW outlet				
1/ORIFICE	1/103 to 1/100									PC				
1/EXT1	1/EXT1 to 2/EXT1	5	138	0.383	0.304	117	117			SAG_BK_4800_Lip	SAG	117	0	2/EXT1
2/EXT1	2/EXT1 to 3/EXT1	5	138	0.004	0.003	1	1	0.6	3	GRADE_BK_2400_Lip	0.5G 3X	1	0	2/EXT2
3/EXT1	3/EXT1 to 4/EXT2	5	138	0.006	0.005	2	2	1	3	GRADE_BK_2400_Lip		2	0	3/EXT2
1/EXT2	1/EXT2 to 2/EXT2	5	138	0.057	0.045	17	17			1200x1200		17	0	2/EXT2
2/EXT2	2/EXT2 to 3/EXT2	5	138	0.107	0.085	33	33			SAG_BK_4800_Lip	SAG	33	0	3/EXT2
3/EXT2	3/EXT2 to 4/EXT2	5	138	0.135	0.107	41	41			SAG_BK_4800_Lip	SAG	41	0	13/1
4/EXT2	4/EXT2 to 2/100									ACC_CHA_1800				
1/EXT3	1/EXT3 to 2/EXT3	5	138	0.154	0.122	47	47	2.25	3	GRADE_BK_4800_Lip	2G 3X	45	2	3/EXT3
2/EXT3	2/EXT3 to 3/EXT3									ACC_CHA_1050				
3/EXT3	3/EXT3 to 4/EXT3	5	138	0.015	0.012	4	6	2.13	3	GRADE_BK_2400_Lip	2G 3X	6	0	4/EXT3
4/EXT3	4/EXT3 to 5/EXT3	5	138	0.034	0.027	10	10	2	3	GRADE_BK_2400_Lip	2G 3X	10	0	5/EXT3
5/EXT3	5/EXT3 to 2/100	5	138	0.031	0.025	10	10	1.5	3	GRADE_BK_2400_Lip	1G 3X	10	0	2/100
1/EXT4	1/EXT4 to 2/EXT3	5	138	0.019	0.015	6	6			900x900		6	0	LOST
1/X2	1/X2 to 2/X2	5	138	1.827	1.451	556	556			1500x1500		556	0	2/33
2/X2	2/X2 to 3/X2									ACC_CHA_1350				
3/X2	3/X2 to 4/X2	0	0	0.000	0.000	0	0			1200x1200		0	0	2/1
4/X2	4/X2 to 5/X2									ACC_CHA_1200				
5/X2	5/X2 to 6/X2									ACC_CHA_1350				
6/X2	6/X2 to 7/X2									ACC_CHA_1500				
7/X2	7/X2 to 8/X2									ACC_CHA_1500				
8/X2	8/X2 to 9/X2									ACC_CHA_1500				
9/X2	9/X2 to 10/X2									ACC_CHA_1500				
10/X2	10/X2 to 11/X2									ACC_CHA_1500				
11/X2	11/X2 to 12/X2									ACC_CHA_1500				
12/X2	12/X2 to 13/X2									ACC_CHA_1500				
13/X2	13/X2 to 14/X2									ACC_CHA_1800				
14/X2	14/X2 to 15/X2	5	138	0.234	0.185	71	72			2TCS0_SAG_UNCHECKED	SAG	72	0	15/X2
OUT/X2										HW outlet				

DRAIN DESIGN / HEAD LOSSES

STRUCTURE No.	Tc CRITICAL TIME OF CONC. min	I RAINFALL INTENSITY mm/hr	CA TOTAL (C x A) ha	Qrat PEAK FLOW L/s	Q PIPE FLOW L/s	L REACH LENGTH m	S PIPE GRADE %	PIPE SIZE mm	PIPE CLASS	Vf=Q/A FULL PIPE VELOCITY m/s	Qcap CAPACITY FLOW L/s	Vcap CAPACITY VELOCITY m/s	Vt TRAVEL VELOCITY m/s	CHART(S) USED	Vf²/2g VELOCITY HEAD m	Ku U/S HEAD LOSS COEFFICIENT	hu U/S HEAD LOSS m	Kw W.S.E COEFFICIENT
1/29	5	138	0.181	69	69	5.182	1	375	3	0.63	175	1.59	1.49	G1	0.02	3.11	0.062	
2/29	5.06	138	0.216	83	83	0.888	2	375	3	0.75	248	2.25	2.02	T1	0.029	0.65	0.019	
1/30	5	138	0.539	207	207	5.717	0.5	600	3	0.73	434	1.54	1.52	G1	0.027	2.94	0.08	
2/30	5.06	138	0.585	224	224	11.038	0.5	600	3	0.79	434	1.54	1.55	T2/T5	0.032	0.59	0.019	
1/31	5	138	0.467	179	179	5.484	1	525	3	0.83	430	1.99	1.9	G1	0.035	3.01	0.105	
2/31	5.05	138	0.515	197	197	0.781	2	600	3	0.7	869	3.07	2.48	T1/T2	0.025	0.14	0.003	
1/32	5	138	0.027	10	10	1.038	1	375	3	0.09	175	1.59	0.86	G1	0	7	0.003	
1/33	5	138	3.048	1168	1168	5.032	0.4	750	3	2.64	704	1.59	2.64	G1	0.357	3.43	1.224	
2/33	5.03	138	3.139	1202	1202	0.888	0.4	825	3	2.25	908	1.7	2.25	T1	0.258	0.01	0.002	
1/34	5	138	0.436	167	167	5.182	1	375	3	1.51	175	1.59	1.81	G1	0.117	3.9	0.455	
2/34	5.05	138	0.481	184	184	1.038	1	375	3	1.67	175	1.59	1.8	T1	0.142	0.64	0.09	
1/35	5	138	1.358	521	521	5.319	1	525	3	2.4	430	1.99	2.4	G1	0.295	2.69	0.792	
2/35	5.04	138	1.429	547	547	11.038	1	600	3	1.94	614	2.17	2.45	T1/T2	0.191	0.12	0.022	
1/36	5	138	0.307	118	118	5.079	1	375	3	1.07	175	1.59	1.7	G1	0.058	4.07	0.236	
1/38	5	138	0.086	33	32	13.324	1	375	3	0.29	175	1.59	1.21	G1	0.004	7	0.031	
1/39	5	138	0.307	118	118	5.23	1	375	3	1.07	175	1.59	1.7	G1	0.058	5.47	0.318	
1/40	5	138	0.063	24	24	13.404	1	375	3	0.22	175	1.59	1.12	G1	0.002	7	0.017	
2/40	5.2	137	0.129	49	49	16.293	1	375	3	0.44	175	1.59	1.36	G1/T10	0.01	2.36	0.024	2.73
1/41	5	138	0.321	123	123	5.23	1	375	3	1.11	175	1.59	1.72	G1	0.063	5.28	0.334	
1/42	5	138	0.086	33	32	0.888	1	375	3	0.29	175	1.59	1.21	G1	0.004	7	0.031	
1/44	5	138	0.076	29	29	13.32	1	375	3	0.26	175	1.59	1.18	G1	0.004	7	0.025	
1/46	5	138	0.04	15	15	0.888	1	375	3	0.14	175	1.59	0.97	G1	0.001	7	0.007	
1/50	5	138	0.079	30	31	4.328	1	375	3	0.28	175	1.59	1.2	G1	0.004	7	0.028	
1/51	5	138	0.084	32	32	10.888	1	375	3	0.29	175	1.59	1.21	G1	0.004	7	0.03	
1/52	5	138	0.084	32	32	0.888	1	375	3	0.29	175	1.59	1.21	G1	0.004	7	0.03	
1/54	5	138	0.034	13	13	13.324	1	375	3	0.12	175	1.59	0.93	G1	0.001	7	0.005	
2/54	5.24	137	0.069	26	26	15.581	2	375	3	0.24	248	2.25	1.46	T10	0.003	2.29	0.007	2.66
3/54	5.42	136	0.149	56	57	6.62	1	450	3	0.36	285	1.79	1.4	T8/T10	0.006	1.87	0.012	2.25
1/55	5	138	1.484	569	569	5.067	1	525	3	2.63	430	1.99	2.63	G1	0.352	2.53	0.891	
2/55	5.03	138	1.526	584	585	11.589	1	525	3	2.7	430	1.99	2.7	T5/T8	0.372	0.93	0.346	0.94
1/57	5	138	0.103	40	40	0.736	1	450	3	0.25	285	1.79	1.26	G1	0.003	7	0.022	
1/58	5	138	0.275	105	105	5.079	1	450	3	0.66	285	1.79	1.66	G1	0.022	7	0.156	
1/61	5	138	0.103	40	38	13.324	1	375	3	0.35	175	1.59	1.27	G1	0.006	7	0.043	
1/71	5	138	0.086	33	34	10.888	1	375	3	0.3	175	1.59	1.23	G1	0.005	7	0.033	
1/72	5	138	0.106	41	40	10.888	1	375	3	0.36	175	1.59	1.28	G1	0.007	7	0.046	
1/100	1	194	0	0	0	17.527	1.08	(2x)825	3	0	2990	2.8	2		0	0	0	
2/100	6.43	131	0.809	295	295	1.655	1.08	1350	3	0.21	5559	3.88	2.06	T10	0.002	2.12	0.005	2.65
3/100																		
1/ORIFICE	1	194	0	0	0	0.25	0.5	225	PVC SN	0	32	0.8	2		0	2	0	
1/EXT1	5	138	0.304	117	117	21.608	1	600	3	0.41	614	2.17	1.67	G1	0.009	7	0.061	
2/EXT1	5.22	137	0.308	117	117	48.472	0.5	600	3	0.41	434	1.54	1.3	T1	0.009	0.25	0.002	
3/EXT1	5.84	134	0.312	116	116	4.889	0.25	600	3	0.41	307	1.09	1.01	T1/T2	0.009	0.32	0.003	
1/EXT2	5	138	0.045	17	17	9.631	1	450	3	0.11	285	1.79	0.99	G1	0.001	4.78	0.003	
2/EXT2	5.16	137	0.13	50	50	27.476	0.67	675	3	0.14	687	1.92	1.11	G1/T1/T2	0.001	2.68	0.003	
3/EXT2	5.57	135	0.237	89	89	12.571	0.15	750	3	0.2	431	0.98	0.77	T5/T8	0.002	1.85	0.004	1.91
4/EXT2	5.92	134	0.55	204	204	25.118	0.1	1050	3	0.24	864	1	0.82	T2/T5	0.003	0.3	0.001	
1/EXT3	5	138	0.122	47	45	12.568	4	375	3	0.41	351	3.18	2.18	G1	0.008	7	0.059	
2/EXT3	5.1	138	0.137	52	51	12.568	2	375	3	0.46	248	2.25	1.76	T1/T2	0.011	0.23	0.002	
3/EXT3	5.21	137	0.149	57	57	23.257	1.5	375	3	0.51	215	1.95	1.64	T1	0.013	0.71	0.01	
4/EXT3	5.45	136	0.176	66	66	19.938	2	375	3	0.6	248	2.25	1.9	T1/T2	0.018	0.92	0.017	
5/EXT3	5.63	135	0.201	75	75	44.29	2	450	3	0.47	403	2.54	1.94	T1	0.011	0.14	0.002	
1/EXT4	5	138	0.015	6	6	2.967	2	375	3	0.05	248	2.25	0.93	G1	0	7	0.001	
1/X2	5	138	1.451	556	556	158.331	0.3	750	3	1.26	610	1.38	1.56	G1	0.081	5.02	0.406	
2/X2	6.69	130	1.451	523	523	69.719	0.2	750	3	1.18	498	1.13	1.28	T10	0.072	2.07	0.148	2.59
3/X2	7.6	126	1.451	506	506	7.796	0.2	750	3	1.15	498	1.13	1.28	T1/T2	0.067	0.22	0.015	
4/X2	7.7	125	1.451	504	504	22.667	0.2	825	3	0.94	642	1.2	1.33	T2/T5	0.045	0.26	0.012	
5/X2	7.98	124	1.451	498	498	55.554	0.5	900	3	0.78	1281	2.01	1.89	T2/T5	0.031	0.43	0.014	
6/X2	8.47	121	4.659	1570	1570	34.884	0.5	1050	3	1.81	1932	2.23	2.48	T5/T8	0.168	1.38	0.231	1.45
7/X2	8.71	120	4.808	1606	1604	77.956	0.4	1050	3	1.85	1728	2	2.27	T1/T2	0.175	0.21	0.037	
8/X2	9.28	117	4.986	1627	1625	75.467	0.25	1050	3	1.88	1366	1.58	1.88	T1/T2	0.18	0.21	0.038	
9/X2	9.95	114	5.159	1637	1636	7.24	0.5	1050	3	1.89	1932	2.23	2.5	T1/T2	0.182	0.22	0.039	
10/X2	10	114	5.159	1634	1632	27.651	0.5	1050	3	1.89	1932	2.23	2.5	T2/T5	0.181	0.57	0.103	
11/X2	10.18	113	5.312	1671	1671	23.424	0.5	1050	3	1.93	1932	2.23	2.51	T8/T10	0.19	2.03	0.385	2.54
12/X2	10.34	113	6.889	2156	2156	26.747	0.5	1200	3	1.91	2758	2.44	2.7	T2	0.185	0.24	0.045	
13/X2	10.5	112	7.714	2400	2398	10.075	1	1200	3	2.12	3900	3.45	3.62	T8/T10	0.229	2.05	0.469	2.58
14/X2	10.55	112	7.906	2455	2455	15.273	0.74	1200	3	2.17	3349	2.96	3.23	T1	0.24	0.34	0.082	
OUT/X2																		

PART FULL

STRUCTURE No.	hw CHANGE IN W.S.E m	Sf PIPE FRICTION SLOPE %	hf PIPE FRICTION HEAD LOSS m	dn NORMAL DEPTH m	Vn NORMAL DEPTH VEL. m/s	PIPE U/S I.L m	PIPE D/S I.L m	PIPE U/S H.G.L m	PIPE D/S H.G.L m	W.S.E m	GRATE LEVEL m
1/29	0.062	0.16	0.008	0.164	1.49	9.726	9.674	10.81	10.802	10.873	11.654
2/29	0.019	0.22	0.002	0.149	2.02	9.603	9.586	10.784	10.782	10.802	11.189
1/30	0.08	0.11	0.006	0.291	1.52	9.328	9.299	11.231	11.225	11.311	13
2/30	0.019	0.13	0.015	0.305	1.55	9.219	9.164	11.206	11.191	11.225	11.476
1/31	0.105	0.17	0.01	0.236	1.9	10.44	10.385	12.016	12.007	12.121	12.579
2/31	0.003	0.1	0.001	0.194	2.48	10.305	10.289	12.003	12.002	12.007	12.18
1/32	0.003	0	0	0.061	0.86	12.56	12.549	12.943	12.943	12.946	13.786
1/33	1.224	1.1	0.055	0.75	2.64	17.033	17.013	17.886	17.831	19.11	19.6
2/33	0.002	0.7	0.006	0.825	2.25	16.928	16.925	17.829	17.823	17.831	19.281
1/34	0.455	0.91	0.047	0.293	1.81	14.059	14.007	14.513	14.466	14.969	15.809
2/34	0.09	1.1	0.011	0.327	1.8	13.938	13.927	14.376	14.365	14.466	15.371
1/35	0.792	1.46	0.078	0.525	2.4	13.961	13.908	15.091	15.013	15.884	18.6
2/35	0.022	0.79	0.088	0.442	2.45	13.868	13.757	14.991	14.904	15.013	15.764
1/36	0.236	0.45	0.023	0.225	1.7	15.773	15.723	16.418	16.396	16.655	17.591
1/38	0.031	0.03	0.005	0.109	1.21	16.603	16.47	16.999	16.994	17.029	17.831
1/39	0.318	0.41	0.023	0.225	1.7	17.145	17.093	17.507	17.486	17.825	19.032
1/40	0.017	1.05	0.133	0.094	1.12	17.445	17.311	17.556	17.415	17.573	18.757
2/40	0.027	1.15	0.153	0.136	1.36	17.231	17.068	17.391	17.203	17.418	18.757
1/41	0.334	-0.04	0.026	0.232	1.72	18.265	18.213	18.543	18.545	18.877	20.438
1/42	0.031	-0.36	0.002	0.109	1.21	17.014	17.005	17.168	17.171	17.198	18.541
1/44	0.025	0.03	0.004	0.103	1.18	13.089	12.955	13.618	13.614	13.643	14.266
1/46	0.007	2.44	0.004	0.075	0.97	17.821	17.812	17.908	17.886	17.915	19.048
1/50	0.028	0.03	0.001	0.107	1.2	16.11	16.067	16.614	16.613	16.643	17.709
1/51	0.03	-0.04	0.007	0.109	1.21	16.674	16.565	16.861	16.866	16.892	18.051
1/52	0.03	-0.1	0.001	0.109	1.21	16.674	16.665	16.865	16.866	16.895	18.051
1/54	0.005	1.09	0.129	0.07	0.93	16.99	16.857	17.072	16.927	17.077	18.07
2/54	0.008	1.92	0.31	0.082	1.46	16.797	16.485	16.913	16.613	16.92	18.07
3/54	0.015	0.04	0.003	0.136	1.4	15.94	15.873	16.601	16.598	16.616	17.874
1/55	0.891	1.75	0.089	0.525	2.63	15.632	15.581	16.781	16.692	17.672	18.278
2/55	0.351	1.85	0.214	0.525	2.7	15.48	15.365	16.346	16.132	16.697	17.695
1/57	0.022	-0.07	0.001	0.113	1.26	15.808	15.8	16.032	16.032	16.054	17.517
1/58	0.156	0.14	0.007	0.189	1.66	16.028	15.977	16.52	16.513	16.676	18.6
1/61	0.043	1.16	0.125	0.119	1.27	17.129	16.995	17.27	17.115	17.313	18.306
1/71	0.033	1.19	0.101	0.111	1.23	17.413	17.304	17.545	17.415	17.578	18.541
1/72	0.046	1.2	0.1	0.121	1.28	17.821	17.712	17.964	17.833	18.009	19.048
1/100	0	0	0	0	0	4.219	4.029	5.583	5.583	5.583	6.975
2/100	0.006	0	0	0.211	2.06	4.009	3.991	5.578	5.578	5.584	7.389
3/100										5.578	7.499
1/ORIFICE	0	0.5	0.001	0	0	6.4	6.399	6.4	6.399	6.4	6.628
1/EXT1	0.061	0.04	0.008	0.177	1.67	4.801	4.585	5.617	5.609	5.678	6.903
2/EXT1	0.002	0.04	0.018	0.213	1.3	4.555	4.313	5.607	5.589	5.609	6.93
3/EXT1	0.003	0.04	0.002	0.256	1.01	4.253	4.241	5.587	5.585	5.589	7.193
1/EXT2	0.003	0	0	0.075	0.99	4.693	4.596	5.593	5.593	5.596	7.984
2/EXT2	0.003	0	0.001	0.123	1.11	4.399	4.216	5.59	5.59	5.593	6.767
3/EXT2	0.004	0.01	0.001	0.231	0.77	4.153	4.134	5.586	5.585	5.59	6.686
4/EXT2	0.001	0.01	0.001	0.347	0.82	4.094	4.069	5.584	5.583	5.585	7.181
1/EXT3	0.059	4.3	0.473	0.091	2.18	7.167	6.664	7.32	6.779	7.379	9.662
2/EXT3	0.002	2.24	0.236	0.115	1.76	6.614	6.363	6.777	6.495	6.779	9.341
3/EXT3	0.01	1.54	0.348	0.131	1.64	6.313	5.964	6.485	6.126	6.495	9.026
4/EXT3	0.017	2.28	0.343	0.132	1.9	5.922	5.523	6.109	5.656	6.126	8.537
5/EXT3	0.002	0.07	0.09	0.132	1.94	5.423	4.537	5.612	5.583	5.614	8.125
1/EXT4	0.001	2.47	0.047	0.039	0.93	7.792	7.732	7.845	7.772	7.846	9.186
1/X2	0.406	0.25	0.395	0.563	1.56	17.59	17.115	18.646	18.251	19.052	19.6
2/X2	0.185	0.22	0.154	0.657	1.28	17.015	16.876	18.103	17.949	18.288	19.6
3/X2	0.015	0.21	0.016	0.626	1.28	16.816	16.8	17.934	17.918	17.949	19.6
4/X2	0.012	0.12	0.028	0.551	1.33	16.74	16.695	17.906	17.878	17.918	19.563
5/X2	0.014	0.08	0.042	0.39	1.89	16.645	16.367	17.865	17.823	17.878	19.592
6/X2	0.244	0.33	0.115	0.719	2.48	16.317	16.142	17.591	17.476	17.835	19.367
7/X2	0.037	0.34	0.269	0.8	2.27	16.091	15.78	17.44	17.171	17.476	19.134
8/X2	0.038	0.35	0.267	1.05	1.88	15.729	15.54	17.133	16.866	17.171	18.628
9/X2	0.039	0.36	0.026	0.742	2.5	15.52	15.484	16.826	16.8	16.866	18.137
10/X2	0.103	0.36	0.099	0.741	2.5	15.403	15.265	16.697	16.598	16.8	18.091
11/X2	0.483	0.35	0.084	0.754	2.51	15.184	15.067	16.214	16.132	16.696	17.941
12/X2	0.045	0.2	0.071	0.799	2.7	15.006	14.872	16.087	16.032	16.132	17.814
13/X2	0.592	0.28	0.09	0.68	3.62	14.709	14.608	15.563	15.534	16.155	17.603
14/X2	0.082	1.4	0.084	0.763	3.23	14.588	14.476	15.452	15.239	15.534	17.517
OUT/X2										15.239	15.921

39% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 2 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 550.dwg

gassman development perspectives est 1985

planning | environment | landscape | engineering | survey

T: 3807 3333 | F: 3287 5461 | www.gassman.com.au

Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives

All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

39% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 2 OF 2

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NOT APPLICABLE
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 551

Rev. No: B

STORMWATER DRAINAGE NETWORK - 1.00% AEP (100 YR ARI) DESIGN SHEET

LOCATION	SUB-CATCHMENT RUNOFF						INLET DESIGN								DRAIN DESIGN								
STRUCTURE No.	DRAIN SECTION	Tc SUB-CATCHMENT TIME OF CONC. min	I RAINFALL INTENSITY mm/h	A SUB-CATCHMENT AREA ha	CA EQUIVALENT AREA ha	Qc SUB-CATCHMENT DISCHARGE L/s	Qa FLOW IN K&C (INC. BYPASS) L/s	ROAD GRADE AT INLET %	ROAD XFALL AT INLET %	INLET TYPE	INLET CURVE	Qg FLOW INTO INLET L/s	Qb BYPASS FLOW L/s	BYPASS STRUCTURE No.	Tc CRITICAL TIME OF CONC. min	I RAINFALL INTENSITY mm/hr	CA TOTAL (C x A) ha	Qrat PEAK FLOW L/s	Q PIPE FLOW L/s	L REACH LENGTH m	S PIPE GRADE %	PIPE SIZE mm	PIPE CLASS
1/1	1/1 to 2/1	5	307	0.058	0.057	49	49	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	2	47	1/11	5	307	0.057	49	2	13.324	2	375	3
2/1	2/1 to 3/1	5	307	0.077	0.076	65	110	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	-2	112	3/1	5.05	306	0.414	352	193	39.535	1.25	450	3
3/1	3/1 to 4/1	5	307	0.044	0.043	37	193	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	-141	333	4/1	5.36	302	0.741	622	242	39.535	1	450	3
4/1	4/1 to 5/1	5	307	0.044	0.043	37	416	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	-98	514	2/14	5.69	298	1.179	975	323	39.379	1	450	3
5/1	5/1 to 6/1									ACC_CHA_1350					5.7	298	3.34	2762	822	39.265	2.5	600	3
6/1	6/1 to 7/1									ACC_CHA_1050					5.87	295	3.733	3063	1365	39.415	5	600	3
7/1	7/1 to 8/1									ACC_CHA_1050					5.99	294	4.06	3313	1581	39.415	5	600	3
8/1	8/1 to 9/1									ACC_CHA_1050					5.78	297	4.433	3652	2125	39.04	5	600	3
9/1	9/1 to 10/1									ACC_CHA_1800					6.19	291	12.655	10231	4884	38.665	2	1200	3
10/1	10/1 to 11/1									ACC_CHA_1800					6.31	289	12.984	10440	5197	15.567	2.5	1200	3
11/1	11/1 to 12/1									ACC_CHA_2100					6.35	289	13.259	10640	5384	10.192	0.1	1200	3
12/1	12/1 to 13/1									ACC_CHA_2100					6.39	288	13.331	10680	5697	18.157	0.1	(2x)1200	3
13/1										HW outlet													
1/2	1/2 to 2/2	5	307	0.362	0.358	305	305			900x900		261	44	2/2	5	307	0.358	305	261	5.23	0.97	375	3
2/2	2/2 to 3/2	5	307	0.033	0.032	28	72	2.82	3	GRADE_BK_2400_Lip	2G 3X	-224	296	1/40	5.04	307	0.39	332	36	46.601	0.5	375	3
3/2	3/2 to 4/2	5	307	0.017	0.017	15	85	1	3	GRADE_BK_2400_Lip	1G 3X	63	22	4/2	5.83	296	0.809	665	348	44.564	1.5	375	3
4/2	4/2 to 5/2	5	307	0.048	0.047	40	154	3.17	3	GRADE_BK_2400_Lip	3G 3X	-135	288	5/2	6.07	293	1.242	1010	426	18.876	3	450	3
5/2	5/2 to 6/2	5	307	0.022	0.021	18	307	3.17	3	GRADE_BK_2400_Lip	3G 3X	36	270	6/2	6.16	291	1.371	1110	455	24.757	4	450	3
6/2	6/2 to 7/2	5	307	0.028	0.027	23	388	3.17	3	GRADE_BK_2400_Lip	3G 3X	-154	542	2/34	6.23	291	1.782	1438	511	38.604	3.33	450	3
7/2	7/2 to 8/2									ACC_CHA_1200					5.64	298	3.498	2900	889	11.316	2	675	3
8/2	8/2 to 9/2									ACC_CHA_1200					5.69	298	4.1	3391	1186	31.9	3.33	675	3
9/2	9/2 to 10/2									ACC_CHA_1200					5.8	296	4.37	3596	1288	18.301	2.5	675	3
10/2	10/2 to 11/2									ACC_CHA_1200					5.87	295	4.403	3612	1433	30.458	3	750	3
11/2	11/2 to 12/2									ACC_CHA_1500					5.75	297	5.597	4617	1845	21.359	3	825	3
12/2	12/2 to 13/2									ACC_CHA_1500					5.82	296	6.242	5133	1876	8.805	2	825	3
13/2	13/2 to 14/2									ACC_CHA_1500					5.85	296	6.242	5125	1868	15.022	2	825	3
14/2	14/2 to 15/2									ACC_CHA_1200					5.9	295	6.969	5710	1842	11.092	2	825	3
15/2	15/2 to 16/2									ACC_CHA_1500					5.94	294	7.24	5920	1829	38.067	1	825	3
16/2	16/2 to 17/2									ACC_CHA_1500					6.1	292	7.467	6061	1777	29.049	1.25	900	3
17/2	17/2 to 9/1									ACC_CHA_1500					6.14	292	7.855	6364	2465	27.6	1	1050	3
1/3	1/3 to 2/3	5	307	1.113	1.100	938	938			1200x1200		481	457	2/3	5	307	1.1	938	481	6.016	0.5	600	3
2/3	2/3 to 11/2	5	307	0.140	0.138	118	1749	2.98	3	1TCS0_UNCHECKED	2G 3X	-18	1766	2/30	5.06	306	1.238	1053	460	10.888	0.5	600	3
1/4	1/4 to 2/4	5	307	0.050	0.049	42	42	3.68	3	GRADE_BK_2400_Lip	3G 3X	33	9	1/44	5	307	0.049	42	33	13.324	1	375	3
2/4	2/4 to 3/4	5	307	0.062	0.062	53	53	3.68	3	GRADE_BK_2400_Lip	3G 3X	40	12	3/4	5.18	305	0.111	94	72	41.281	3	375	3
3/4	3/4 to 9/2	5	307	0.065	0.064	55	889			SAG_BK_2400_Lip	SAG	50	840	1/32	5.33	303	0.268	225	122	20.135	0.67	375	3
1/5	1/5 to 2/5	5	307	1.836	1.814	1547	1547			900x900		293	1254	2/5	5	307	1.814	1547	293	5.182	0.5	525	3
2/5	2/5 to 5/1	5	307	0.041	0.040	34	1427	1	3	GRADE_BK_2400_Lip		116	1310	1/15	5.05	306	1.854	1577	406	14.953	0.67	600	3
1/6	1/6 to 2/6	5	307	0.044	0.044	37	37	2.81	3	GRADE_BK_2400_Lip	2G 3X	29	8	1/61	5	307	0.044	37	29	13.324	1	375	3
2/6	2/6 to 3/6	5	307	0.035	0.035	30	30	2.81	3	GRADE_BK_2400_Lip	2G 3X	24	6	3/6	5.19	304	0.078	66	52	40.436	3	375	3
3/6	3/6 to 4/6	5	307	0.045	0.044	38	44	2.81	3	GRADE_BK_2400_Lip	2G 3X	34	10	1/40	5.52	300	0.123	103	84	31.95	4	375	3
4/6	4/6 to 5/6									ACC_CHA_1050					5.57	299	0.282	235	180	18.468	2	375	3
5/6	5/6 to 6/6	5	307	0.050	0.050	43	385	2	3	GRADE_BK_2400_Lip	2G 3X	76	309	6/6	5.7	298	0.461	381	251	45.391	1.25	450	3
6/6	6/6 to 13/X2	5	307	0.064	0.064	54	363	0.98	3	GRADE_BK_2400_Lip	0.5G 3X	-311	675	1/57	5.81	296	0.862	709	213	44.355	1	450	3
1/8	1/8 to 2/1	5	307	0.287	0.284	242	242			900x900		196	46	2/1	5	307	0.284	242	196	5.229	1	375	3
1/10	1/10 to 3/1	5	307	0.287	0.284	242	242			900x900		198	44	3/1	5	307	0.284	242	198	5.229	1	375	3
1/11	1/11 to 4/1	5	307	0.111	0.109	93	140	0.93	3	GRADE_BK_2400_Lip	0.5G 3X	2	138	2/5	5	307	0.109	93	2	13.324	1	375	3
1/12	1/12 to 4/1	5	307	0.287	0.284	242	242			900x900		196	46	4/1	5	307	0.284	242	196	5.229	1	375	3
1/14	1/14 to 2/14	5	307	0.287	0.284	242	242			900x900		242	0	5/1	5	307	0.284	242	242	5.229	1	375	3
2/14	2/14 to 5/1	5	307	0.043	0.043	36	550	2	3	GRADE_BK_2400_Lip		-79	629	2/16	5.04	306	0.326	278	162	1.011	1	375	3
1/15	1/15 to 6/1	5	307	0.066	0.065	56	1366	4.5	3	GRADE_BK_2400_Lip	4G 3X	166	1200	1/19	5	307	0.065	56	166	11.113	1	375	3
1/16	1/16 to 2/16	5	307	0.287	0.284	242	242			900x900		242	0	6/1	5	307	0.284	242	242	5.229	1	375	3
2/16	2/16 to 6/1	5	307	0.042	0.041	35	665	4.5	3	GRADE_BK_2400_Lip		166	498	2/18	5.04	306	0.325	277	408	1.161	1	375	3
1/18	1/18 to 2/18	5	307	0.287	0.284	242	242			900x900		242	0	7/1	5	307	0.284	242	242	5.229	1	375	3
2/18	2/18 to 7/1	5	307	0.042	0.042	36	534	6	3	GRADE_BK_2400_Lip		1	532	2/20	5.04	306	0.325	277	243	1.161	1	375	3
1/19	1/19 to 8/1	5	307	0.108	0.107	91	1291	6	3	GRADE_BK_2400_Lip	4G 3X	166	1125	1/26	5	307	0.107	91	166	11.113	1	375	3
1/20	1/20 to 2/20	5	307	0.287	0.284	242	242			900x900		242	0	8/1	5	307	0.284	242	242	5.182	1	375	3
2/20	2/20 to 8/1	5	307	0.044	0.043	37	569	6	3	GRADE_BK_2400_Lip		166	403	2/21	5.04	306	0.327	278	408	1.113	1	375	3
1/21	1/21 to 2/21	5	307	0.287	0.284	242	242			900x900		192	50	2/21	5	307	0.284	242	192	5.182	1	375	3
2/21	2/21 to 9/1	5	307	0.047	0.046	39	493	3	3	GRADE_BK_2400_Lip	3G 3X	171	322	2/22	5.05	306	0.33	281	361	0.738	1	375	3
1/22	1/22 to 2/22	5	307	0.287	0.284	242	242			900x900		233	9	2/22	5	307	0.284	242	233	5.182	1	375	3
2/22	2/22 to 10/1	5	307	0.043	0.042	36	367	4.3	3	GRADE_BK_2400_Lip	4G 3X	148	219	2/23	5.04	306	0.326	277	380	0.738	1	375	3
1/23	1/23 to 2/23	5	307	0.248	0.245	209	209			900x900		209	0	2/EXT2	5	307	0.245	209	209	7.973	0.25	525	3
2/23	2/23 to 11/1	5	307	0.029	0.028	24	243	5	3	GRADE_BK_3600_Lip	4G 3X	12	232	2/EXT2	5.12	305	0.273	232	219	7.112	0.2	600	3
1/24	1/24 to 2/24	5	307	0.056	0.056	48	4776	4.3	3	GRADE_BK_2400_Lip	4G 3X	166	4609	2/24	5	307	0.056	48	166	13.225	5	375	3
2/24	2/24 to 12/1	5	307	0.016	0.016	13	4623	5.5	3	GRADE_BK_2400_Lip	4G 3X	166	4456	3/EXT2	5.06	306	0.072	61	333	6.028	2	375	3
1/25	1/25 to 2/25	5	307	0.194	0.192	163	5428			900x900		5428	0	1/25	5	307	0.192	163	5428	5.329	1	375	3

LOCATION	HEAD LOSSES									PART FULL										
STRUCTURE No.	Vf=Q/A FULL PIPE VELOCITY m/s	Qcap CAPACITY FLOW L/s	Vcap CAPACITY VELOCITY m/s	Vt TRAVEL VELOCITY m/s	CHART(S) USED	Vf²/2g VELOCITY HEAD m	Ku U/S HEAD LOSS COEFFICIENT	hu U/S HEAD LOSS m	Kw W.S.E COEFFICIENT	hw CHANGE IN W.S.E m	Sf PIPE FRICTION SLOPE %	hf PIPE FRICTION HEAD LOSS m	dn NORMAL DEPTH m	Vn NORMAL DEPTH VEL. m/s	PIPE U/S I.L m	PIPE D/S I.L m	PIPE U/S H.G.L m	PIPE D/S H.G.L m	W.S.E m	GRATE LEVEL m
1/1	0.02	248	2.25	0.67	G1	0	3.14	0		0	0	0	0.023	0.67	18.283	18.016	19.411	19.411	19.411	19.411
2/1	1.21	319	2.01	2.1	T10	0.075	1.56	0.117	1.94	0.146	0.46	0.181	0.253	2.1	17.672	17.178	19.231	19.05	19.377	19.411
3/1	1.52	285	1.79	2.01	T5	0.118	0.76	0.09		0.09	0.72	0.284	0.318	2.01	17.158	16.762	18.96	18.676	19.05	19.05
4/1	2.03	285	1.79	2.03	T2/T5	0.211	0.66	0.14		0.14	1.29	0.506	0.45	2.03	16.742	16.349	18.537	18.03	18.676	18.676
5/1	2.91	971	3.44	3.85	T2/T5	0.431	0.63	0.271		0.271	1.79	0.703	0.424	3.85	16.137	15.155	17.759	17.056	18.03	18.312
6/1	4.83	1374	4.86	5.54	T2/T5	1.096	0.58	0.635		0.635	4.55	1.794	0.488	5.54	14.791	12.82	16.421	14.627	17.056	17.057
7/1	5.59	1374	4.86	5.59	T8/T10	0.784	1.24	0.972	1.35	1.059	3.25	1.283	0.6	5.59	12.141	10.17	13.656	12.373	14.715	14.802
8/1	7.52	1374	4.86	7.52	T2/T4	1.439	0.37	0.53		0.53	5.98	2.333	0.6	7.52	9.695	7.743	11.843	9.511	12.373	12.374
9/1	4.32	5516	4.88	5.51	T4/T8	0.952	0.69	0.652	0.69	0.66	1.57	0.606	0.878	5.51	7.336	6.563	8.858	8.252	9.519	10.657
10/1	4.59	6167	5.45	6.11	T1/T2	1.077	0.22	0.237		0.237	1.78	0.276	0.844	6.11	6.543	6.154	8.015	7.739	8.252	9.15
11/1	4.76	1233	1.09	4.76	T8/T10	0.278	1.7	0.473	1.95	0.543	0.46	0.045	1.2	4.76	6.048	6.038	7.265	7.218	7.808	8.345
12/1	2.52	2467	1.09	2.52	T1/T2	0.324	-1.14	-0.368		-0.368	0.53	0.097	1.2	2.52	6.018	6	7.586	7.489	7.218	8.058
13/1																			7.489	7.45
1/2	2.36	173	1.57	2.36	G1	0.285	2.06	0.587		0.587	2.21	0.116	0.375	2.36	18.113	18.062	19.473	19.357	20.06	20.06
2/2	0.33	124	1.12	0.98	T10	0.006	1.54	0.009	1.93	0.011	0.04	0.02	0.139	0.98	17.883	17.65	19.342	19.322	19.353	19.357
3/2	3.15	215	1.95	3.15	T8/T10	0.178	1.4	0.248	1.59	0.283	1.38	0.616	0.375	3.15	17.63	16.962	19.074	18.458	19.357	19.608
4/2	2.68	494	3.11	3.49	T2/T5	0.366	0.56	0.206		0.206	2.23	0.421	0.322	3.49	16.912	16.345	18.243	17.822	18.449	18.458
5/2	2.86	570	3.59	3.98	T1	0.417	0.42	0.175		0.175	2.54	0.629	0.304	3.98	16.264	15.274	17.647	17.018	17.822	17.831
6/2	3.21	521	3.27	3.73	T2/T5	0.526	0.48	0.253		0.253	3.21	1.237	0.361	3.73	15.084	13.798	16.198	14.961	16.451	17.018
7/2	2.48	1189	3.32	3.64	T2/T5	0.315	0.7	0.222		0.222	1.12	0.127	0.435	3.64	13.603	13.376	14.739	14.612	14.961	15.85
8/2	3.31	1534	4.29	4.73	T2/T5	0.56	0.29	0.164		0.164	1.99	0.634	0.446	4.73	13.278	12.217	14.449	13.815	14.612	15.457
9/2	3.6	1330	3.72	4.23	T1/T2	0.661	0.23	0.149		0.149	2.34	0.429	0.535	4.23	12.197	11.74	13.665	13.236	13.815	14.558
10/2	3.24	1929	4.37	4.78	T1/T2	0.537	0.23	0.124		0.124	1.65	0.504	0.481	4.78	11.633	10.719	13.112	12.608	13.236	13.872
11/2	3.45	2487	4.65	5.09	T2	0.608	0.27	0.164		0.164	1.65	0.353	0.529	5.09	10.569	9.928	12.444	12.092	12.608	12.924
12/2	3.51	2031	3.8	4.31	T2/T5	0.628	0.34	0.211		0.211	1.71	0.15	0.626	4.31	9.828	9.652	11.881	11.731	12.092	12.264
13/2	3.49	2031	3.8	4.31	T1/T2	0.623	0.24	0.151		0.151	1.69	0.254	0.624	4.31	9.572	9.272	11.58	11.326	11.731	12.021
14/2	3.45	2031	3.8	4.3	T1	0.606	0.2	0.122		0.122	1.65	0.183	0.616	4.3	9.097	8.875	11.204	11.021	11.326	11.562
15/2	3.42	1436	2.69	3.42	T1	0.597	0.2	0.12		0.12	1.62	0.617	0.825	3.42	8.774	8.394	10.901	10.284	11.021	11.273
16/2	2.79	2025	3.18	3.59	T1	0.398	0.2	0.08		0.08	0.96	0.28	0.654	3.59	8.292	7.929	10.204	9.924	10.284	10.829
17/2	2.85	2732	3.15	3.57	T2/T5	0.413	0.46	0.189		0.189	0.81	0.225	0.781	3.57	7.849	7.573	9.735	9.511	9.924	10.64
1/3	1.7	434	1.54	1.7	G1	0.147	2.49	0.366		0.366	0.61	0.037	0.6	1.7	10.871	10.841	12.875	12.838	13.241	13.562
2/3	1.63	434	1.54	1.73	T2/T5	0.135	0.53	0.072		0.072	0.56	0.061	0.533	1.73	10.761	10.707	12.67	12.608	12.742	12.838
1/4	0.29	175	1.59	1.21	G1	0.004	7	0.031		0.031	0.8	0.125	0.109	1.21	14.463	14.33	14.592	14.486	14.623	15.607
2/4	0.65	304	2.75	2.25	G1/T10	0.022	2.79	0.061	3.12	0.068	1.06	0.494	0.124	2.25	14.23	12.991	14.426	13.988	14.493	15.607
3/4	1.11	143	1.3	1.46	T1/T2	0.063	1.2	0.075		0.075	0.49	0.098	0.267	1.46	12.878	12.744	13.912	13.815	13.988	14.266
1/5	1.35	304	1.41	1.6	G1	0.093	2.56	0.239		0.239	0.46	0.024	0.414	1.6	16.446	16.421	18.229	18.205	18.467	18.645
2/5	1.43	502	1.77	1.97	T2/T5	0.105	1.04	0.109		0.109	0.44	0.065	0.409	1.97	16.351	16.251	18.095	18.03	18.205	18.398
1/6	0.26	175	1.59	1.17	G1	0.003	7	0.024		0.024	0.93	0.132	0.103	1.17	19.744	19.611	19.866	19.741	19.89	20.803
2/6	0.47	304	2.75	2.05	T10	0.011	2.28	0.026	2.66	0.03	2.43	1.033	0.105	2.05	19.551	18.338	19.716	18.735	19.746	20.803
3/6	0.76	351	3.18	2.61	T1	0.03	1.76	0.052		0.052	0.23	0.073	0.125	2.61	18.318	17.04	18.682	18.609	18.735	19.643
4/6	1.63	248	2.25	2.45	T5/T8	0.135	0.81	0.11	0.82	0.11	1.05	0.194	0.237	2.45	16.89	16.52	18.5	18.306	18.61	18.849
5/6	1.58	319	2.01	2.22	T1	0.127	0.9	0.115		0.115	0.78	0.352	0.301	2.22	16.5	15.933	18.191	17.839	18.306	18.306
6/6	1.34	285	1.79	1.97	T5/T8	0.092	0.81	0.074	0.81	0.075	0.56	0.247	0.29	1.97	15.853	15.409	17.764	17.517	17.839	17.839
1/8	1.78	175	1.59	1.78	G1	0.161	2.05	0.33		0.33	1.25	0.065	0.375	1.78	17.837	17.785	19.476	19.411	19.806	19.806
1/10	1.79	175	1.59	1.79	G1	0.164	2.05	0.335		0.335	1.27	0.067	0.375	1.79	17.477	17.425	19.117	19.05	19.452	19.452
1/11	0.02	175	1.59	0.53	G1	0	3.15	0		0	0	0	0.028	0.53	17.548	17.415	18.676	18.676	18.676	18.676
1/12	1.78	175	1.59	1.78	G1	0.16	2.05	0.329		0.329	1.25	0.065	0.375	1.78	17.103	17.051	18.741	18.676	19.07	19.07
1/14	2.19	175	1.59	2.19	G1	0.18	1.9	0.344		0.344	1.4	0.073	0.375	2.19	16.401	16.348	18.298	18.225	18.642	18.642
2/14	1.47	175	1.59	1.8	T1	0.11	0.2	0.022		0.022	0.85	0.009	0.284	1.8	16.328	16.318	18.039	18.03	18.061	18.225
1/15	1.51	175	1.59	1.81		0	0	0		0	0	0	0.292	1.81	15.793	15.682	17.056	17.056	17.056	16.971
1/16	2.19	175	1.59	2.19	G1	0.153	1.94	0.298		0.298	1.19	0.062	0.375	2.19	15.248	15.196	17.118	17.056	17.416	17.416
2/16	3.69	175	1.59	3.69		0	0	0		0	0	0	0.375	3.69	15.166	15.154	17.056	17.056	17.056	16.97
1/18	2.19	175	1.59	2.19	G1	0.144	2.08	0.3		0.3	1.12	0.059	0.375	2.19	13.142	13.089	14.761	14.703	15.061	15.061
2/18	2.2	175	1.59	2.2	T1	0.246	0.22	0.053		0.053	1.92	0.022	0.375	2.2	13.059	13.048	14.65	14.627	14.703	14.715
1/19	1.51	175	1.59	1.81		0	0	0		0	0	0	0.292	1.81	11.059	10.948	12.373	12.373	12.373	12.287
1/20	2.19	175	1.59	2.19	G1	0.103	2.08	0.214		0.214	0.8	0.042	0.375	2.19	10.713	10.661	12.415	12.373	12.629	12.629
2/20	3.69	175	1.59	3.69		0	0	0		0	0	0	0.375	3.69	10.631	10.62	12.373	12.373	12.373	12.286
1/21	1.73	175	1.59	1.73	G1	0.153	2.28	0.35		0.35	1.19	0.062	0.375	1.73	8.948	8.896	10.275	10.213	10.625	10.945
2/21	3.27	175	1.59	3.27	T1	0.546	1.23	0.671		0.671	4.25	0.031	0.375	3.27	8.827	8.819	9.542	9.511	10.213	10.571
1/22	2.11	175	1.59	2.11	G1	0.227	2.01	0.458		0.458	1.77	0.092	0.375	2.11	7.44	7.388	9.023	8.932	9.481	9.49
2/22	3.44	175	1.59	3.44	T1	0.605	1.07	0.645		0.645	4.7	0.035	0.375	3.44	7.319	7.311	8.287	8.252	8.932	9.064
1/23	0.96	215	0.99	1.13	G1	0.047	2.95	0.14		0.14	0.24	0.019	0.417	1.13	6.234	6.214	7.818	7.799	7.958	9.482
2/23	0.77	275	0.97	1.08	T8/T10	0.031	1.68	0.052	1.97	0.06	0.13	0.009	0.405	1.08	6.144	6.13	7.748	7.739	7.808	7.808
1/24	1.51	392	3.55	3.4	G1	0.116	3.79	0.439		0.439	0.9	0.119	0.171	3.4	7.722	7.06	8.214	8.095	8.652	9.027
2/24	3.01	248	2.25	3.01	T1/T2	0.463	1.43	0.66		0.66	3.6	0.217	0.375	3.01	6.81	6.69	7.435	7.218	8.095	8.335
1/25	49.14	175	1.59	49.14	G1	0.193	2.09	0.403		0.403	1.5	0.08	0.375	49.14	9.138	9.084	10.634	10.554	11.037	11.037

1% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 1 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 550.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

1% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 1 OF 2

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NOT APPLICABLE
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 552
Rev. No: B

STORMWATER DRAINAGE NETWORK - 1.00% AEP (100 YR ARI) DESIGN SHEET

LOCATION		SUB-CATCHMENT RUNOFF					INLET DESIGN								DRAIN DESIGN									HEAD LOSSES									PART FULL										
STRUCTURE No.	DRAIN SECTION	Tc SUB-CATCHMENT TIME OF CONC. min	I RAINFALL INTENSITY mm/h	A SUB-CATCHMENT AREA ha	CA EQUIVALENT AREA ha	Qc SUB-CATCHMENT DISCHARGE L/s	Qa FLOW IN K&C (INC. BYPASS) L/s	ROAD GRADE AT INLET %	ROAD XFALL AT INLET %	INLET TYPE	INLET CURVE	Qg FLOW INTO INLET L/s	Qb BYPASS FLOW L/s	BYPASS STRUCTURE No.	Tc CRITICAL TIME OF CONC. min	I RAINFALL INTENSITY mm/hr	CA TOTAL (C x A) ha	Qrat PEAK FLOW L/s	Q PIPE FLOW L/s	L REACH LENGTH m	S PIPE GRADE %	PIPE SIZE mm	PIPE CLASS	Vf=Q/A FULL PIPE VELOCITY m/s	Qcap CAPACITY FLOW L/s	Vcap CAPACITY VELOCITY m/s	Vt TRAVEL VELOCITY m/s	CHART(S) USED	Vf²/2g VELOCITY HEAD m	Ku U/S HEAD LOSS COEFFICIENT	hu U/S HEAD LOSS m	Kw W.S.E COEFFICIENT	hw CHANGE IN W.S.E m	Sf PIPE FRICTION SLOPE %	hf PIPE FRICTION HEAD LOSS m	dn NORMAL DEPTH m	Vn NORMAL DEPTH VEL. m/s	PIPE U/S I.L m	PIPE D/S I.L m	PIPE U/S H.G.L m	PIPE D/S H.G.L m	W.S.E m	GRATE LEVEL m
2/25	2/25 to 17/2	5	307	0.047	0.046	40	40			SAG_BK_2400_Lip	SAG	-4689	4728	1/24	5	307	0.238	203	739	0.956	1	375	3	6.69	175	1.59	6.69	T1	2.285	0.2	0.46		0.46	17.76	0.17	0.375	6.69	9.014	9.004	10.094	9.924	10.554	10.554
1/26	1/26 to 17/2	5	307	0.183	0.181	155	3657			SAG_BK_2400_Lip	SAG	2	3654	1/25	5	307	0.181	155	2	10.956	1	375	3	0.02	175	1.59	0.55	G1	0	4.78	0		0	0	0	0.029	0.55	9.17	9.06	9.924	9.924	9.924	10.554
1/27	1/27 to 2/27	5	307	0.191	0.189	161	1579			900x900		1579	0	1/27	5	307	0.189	161	1579	5.182	1	375	3	14.3	175	1.59	14.3	G1	0.207	2.07	0.429		0.429	1.61	0.083	0.375	14.3	9.332	9.28	10.826	10.743	11.255	11.255
2/27	2/27 to 16/2	5	307	0.044	0.044	37	37	0.69	3	GRADE_BK_2400_Lip	0.5G 3X	-1573	1610	1/25	5.01	307	0.232	198	7	0.888	1	375	3	0.06	175	1.59	0.77	T1	0	0.2	0		0	0	0	0.05	0.77	9.21	9.201	10.284	10.284	10.284	10.743
1/29	1/29 to 2/29	5	307	0.228	0.225	192	192			900x900		192	0	2/29	5	307	0.225	192	192	5.182	1	375	3	1.74	175	1.59	1.74	G1	0.154	2.12	0.327		0.327	1.2	0.062	0.375	1.74	9.726	9.674	11.251	11.189	11.578	11.654
2/29	2/29 to 15/2	5	307	0.045	0.044	38	1232	1.2	3	GRADE_BK_2400_Lip	1G 3X	-186	1419	1/27	5.05	306	0.269	229	5	0.888	2	375	3	0.05	248	2.25	0.9	T1	0	0.2	0		0	0	0	0.037	0.9	9.603	9.586	11.021	11.021	11.021	11.189
1/30	1/30 to 2/30	5	307	0.679	0.671	572	572			1200x1200		481	91	2/30	5	307	0.671	572	481	5.717	0.5	600	3	1.7	434	1.54	1.7	G1	0.147	2.37	0.35		0.35	0.61	0.035	0.6	1.7	9.328	9.299	11.511	11.476	11.861	13
2/30	2/30 to 14/2	5	307	0.058	0.058	49	1907	2.8	3	GRADE_BK_2400_Lip	2G 3X	-471	2378	1/26	5.06	306	0.728	620	8	11.038	0.5	600	3	0.03	434	1.54	0.6	T2/T5	0	0.36	0		0	0	0	0.057	0.6	9.219	9.164	11.326	11.326	11.326	11.476
1/31	1/31 to 2/31	5	307	0.588	0.582	496	496			1200x1200		369	127	2/31	5	307	0.582	496	369	5.484	1	525	3	1.7	430	1.99	2.23	G1	0.148	2.42	0.359		0.359	0.73	0.04	0.374	2.23	10.44	10.385	12.22	12.18	12.579	12.579
2/31	2/31 to 12/2	5	307	0.060	0.060	51	888	2.98	3	GRADE_BK_2400_Lip	2G 3X	-307	1195	2/29	5.04	306	0.641	546	61	0.781	2	600	3	0.22	869	3.07	1.77	T1/T2	0.002	-0.25	-0.001		-0.001	0.01	0	0.108	1.77	10.305	10.289	12.092	12.092	12.091	12.18
1/32	1/32 to 10/2	5	307	0.033	0.033	28	868	2.98	3	GRADE_BK_2400_Lip	2G 3X	158	710	2/31	5	307	0.033	28	158	1.038	1	375	3	1.43	175	1.59	1.8	G1	0.104	3.42	0.356		0.356	0.81	0.008	0.278	1.8	12.56	12.549	13.245	13.236	13.6	13.786
1/33	1/33 to 2/33	5	307	3.839	3.794	3236	3236			1200x1200		680	2556	2/33	5	307	3.794	3236	680	5.032	0.4	750	3	1.54	704	1.59	1.82	G1	0.121	3.74	0.453		0.453	0.37	0.019	0.593	1.82	17.033	17.013	18.459	18.441	18.912	19.6
2/33	2/33 to 6/X2	5	307	0.114	0.112	96	3557	0.64	3	1TCS0_UNCHECKED	0.5G 3X	239	3317	1/46	5.05	306	3.907	3325	913	0.888	0.4	825	3	1.71	908	1.7	1.94	T1	0.149	0.99	0.147		0.147	0.4	0.004	0.68	1.94	16.928	16.925	18.294	18.291	18.441	19.281
1/34	1/34 to 2/34	5	307	0.549	0.542	463	463			900x900		200	263	2/34	5	307	0.542	463	200	5.182	1	375	3	1.81	175	1.59	1.81	G1	0.167	2.43	0.407		0.407	1.3	0.067	0.375	1.81	14.059	14.007	15.171	15.104	15.578	15.809
2/34	2/34 to 8/2	5	307	0.057	0.056	48	853	3.17	3	GRADE_BK_2400_Lip	3G 3X	116	736	1/44	5.05	306	0.598	509	315	1.038	1	375	3	2.85	175	1.59	2.85	T1	0.415	1.1	0.458		0.458	3.23	0.034	0.375	2.85	13.938	13.927	14.646	14.612	15.104	15.371
1/35	1/35 to 2/35	5	307	1.710	1.690	1441	1441			1200x1200		481	961	2/35	5	307	1.69	1441	480	5.319	1	525	3	2.22	430	1.99	2.22	G1	0.251	2.23	0.561		0.561	1.25	0.066	0.525	2.22	13.961	13.908	15.83	15.764	16.391	18.6
2/35	2/35 to 7/2	5	307	0.090	0.088	75	1126	3.17	3	GRADE_BK_2400_Lip	3G 3X	-47	1173	2/3	5.04	306	1.779	1514	431	11.038	1	600	3	1.52	614	2.17	2.35	T1/T2	0.118	-0.14	-0.017		-0.017	0.49	0.054	0.37	2.35	13.868	13.757	15.015	14.961	14.998	15.764
1/36	1/36 to 6/2	5	307	0.387	0.383	326	326			1200x1200		232	94	6/2	5	307	0.383	326	232	5.079	1	375	3	2.1	175	1.59	2.1	G1	0.225	2.15	0.484		0.484	1.75	0.089	0.375	2.1	15.773	15.723	17.107	17.018	17.591	17.591
1/38	1/38 to 5/2	5	307	0.108	0.107	91	91	3.17	3	GRADE_BK_2400_Lip	3G 3X	1	90	2/35	5	307	0.107	91	1	13.324	1	375	3	0.01	175	1.59	0.48	G1	0	2.97	0		0	0	0	0.024	0.48	16.603	16.47	17.822	17.822	17.822	17.831
1/39	1/39 to 4/2	5	307	0.387	0.383	326	326			900x900		234	92	4/2	5	307	0.383	326	234	5.23	1	375	3	2.12	175	1.59	2.12	G1	0.23	2.09	0.481		0.481	1.78	0.093	0.375	2.12	17.145	17.093	18.551	18.458	19.032	19.032
1/40	1/40 to 2/40	5	307	0.080	0.079	67	373			SAG_BK_2400_Lip	SAG	2	371	2/40	5	307	0.079	67	2	13.404	1	375	3	0.02	175	1.59	0.55	G1	0	2.8	0		0	0	0	0.03	0.55	17.445	17.311	18.755	18.755	18.755	18.757
2/40	2/40 to 4/6	5	307	0.082	0.081	69	440	0.6	3	GRADE_BK_2400_Lip		98	342	5/6	5.41	302	0.16	134	98	16.293	1	375	3	0.89	175	1.59	1.63	G1/T10	0.04	2.38	0.095	2.39	0.096	0.31	0.051	0.2	1.63	17.231	17.068	18.66	18.609	18.756	18.757
1/41	1/41 to 3/2	5	307	0.404	0.400	341	341			900x900		271	70	3/2	5	307	0.4	341	271	5.23	1	375	3	2.45	175	1.59	2.45	G1	0.306	2.14	0.654		0.654	2.38	0.124	0.375	2.45	18.265	18.213	19.446	19.322	20.101	20.438
1/42	1/42 to 8/X2	5	307	0.109	0.108	92	3234	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	212	3022	1/52	5	307	0.108	92	212	0.888	1	375	3	1.92	175	1.59	1.92	G1	0.188	2.45	0.461		0.461	1.46	0.013	0.375	1.92	17.014	17.005	18.054	18.041	18.515	18.541
1/44	1/44 to 3/4	5	307	0.096	0.094	81	826			SAG_BK_2400_Lip	SAG	5	822	3/4	5	307	0.094	81	5	13.32	1	375	3	0.04	175	1.59	0.68	G1	0	3.96	0		0	0	0	0.041	0.68	13.089	12.955	13.988	13.988	13.988	14.266
1/46	1/46 to 7/X2	5	307	0.050	0.049	42	3359	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	217	3143	1/42	5	307	0.049	42	217	0.888	1	375	3	1.96	175	1.59	1.96	G1	0.197	3.39	0.666		0.666	1.53	0.014	0.375	1.96	17.821	17.812	18.204	18.191	18.871	19.048
1/50	1/50 to 3/54	5	307	0.100	0.099	84	3076			SAG_BK_2400_Lip	SAG	11	3065	1/57	5	307	0.099	84	11	4.328	1	375	3	0.1	175	1.59	0.88	G1	0.001	2.36	0.001		0.001	0	0	0.064	0.88	16.11	16.067	17.708	17.707	17.709	17.709
1/51	1/51 to 9/X2	5	307	0.106	0.104	89	122	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	89	34	2/55	5	307	0.104	89	89	10.888	1	375	3	0.8	175	1.59	1.59	G1	0.033	2.81	0.093		0.093	0.26	0.028	0.189	1.59	16.674	16.565	17.887	17.859	17.98	18.051
1/52	1/52 to 9/X2	5	307	0.106	0.104	89	3111	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	127	2984	1/50	5	307	0.104	89	127	0.888	1	375	3	1.15	175	1.59	1.73	G1	0.068	2.69	0.183		0.183	0.53	0.005	0.237	1.73	16.674	16.665	17.864	17.859	18.047	18.051
1/54	1/54 to 2/54	5	307	0.043	0.043	37	37	0.85	3	GRADE_BK_2400_Lip		29	8	14/X2	5	307	0.043	37	29	13.324	1	375	3	0.26	175	1.59	1.17	G1	0.003	4.66	0.016		0.016	0.03	0.004	0.102	1.17	16.99	16.857	17.749	17.746	17.765	18.07
2/54	2/54 to 3/54	5	307	0.043	0.043	37	37	0.85	3	GRADE_BK_2400_Lip		29	8	1/50	5.19	304	0.086	73	56	15.581	2	375	3	0.51	248	2.25	1.82	T10	0.013	1.66	0.022	2.09	0.028	0.1	0.016	0.122	1.82	16.797	16.485	17.724	17.707	17.751	18.07
3/54	3/54 to 11/X2									ACC_CHA_1050					5.33	303	0.185	155	66	6.62	1	450	3	0.41	285	1.79	1.46	T8/T10	0.004	1.49	0.007	1.84	0.008	0.03	0.002	0.147	1.46	15.94	15.873	17.701	17.699	17.709	17.874
1/55	1/55 to 2/55	5	307	1.869	1.847	1575	1575			1200x1200		478	1097	1/57	5	307	1.847	1575	478	5.067	1	525	3	2.21	430	1.99	2.21	G1	0.249	2.09	0.52		0.52	1.23	0.063	0.525	2.21	15.632	15.581	17.758	17.695	18.278	18.278
2/55	2/55 to 12/X2	5	307	0.053	0.052	45	78	0.62	3	GRADE_BK_2400_Lip	0.5G 3X	-173	252	1/57	5.04	306	1.899	1617	302	11.589	1	525	3	1.4	430	1.99	2.15	T5/T8	0.099	0.84	0.083	0.85	0.084	0.49	0.057	0.325	2.15	15.48	15.365	17.611	17.554	17.695	17.695
1/57	1/57 to 13/X2	5	307	0.130	0.128	109	5198			SAG_BK_4800_Lip	SAG	3	5195	14/X2	5	307	0.128	109	3	0.736	1	450	3	0.02	285	1.79	0.57	G1	0	2.59	0		0	0	0	0.031	0.57	15.808	15.8	17.517	17.517	17.517	17.517
1/58	1/58 to 6/6	5	307	0.346	0.342	292	292			1200x1200		292	0	1/57	5	307	0.342	292	292	5.079	1	450	3	1.83	285	1.79	2.04	G1	0.171	2.12	0.363		0.363	1.04	0.053	0.379	2.04	16.028	15.977	17.892	17.839	18.255	18.6
1/61	1/61 to 5/6	5	307	0.130	0.129	110	118	2	3	GRADE_BK_2400_Lip	2G 3X	1	117	14/X2	5	307	0.129	110	1	13.324	1	375	3	0.01	175	1.59	0.47	G1	0	3.05	0		0	0	0	0.023	0.47	17.129	16.995	18.306	18.306	18.306	18.306
1/71	1/71 to 8/X2	5	307	0.109	0.108	92	122	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	88	34	1/51	5	307	0.108	92	88	10.888	1	375	3	0.8	175	1.59	1.59	G1	0.033	4.5	0.147		0.147	0.25	0.028	0.189	1.59	17.413	17.304	18.069	18.041	18.216	18.541
1/72	1/72 to 7/X2	5	307	0.134	0.132	113	113	0.64	3	GRADE_BK_2400_Lip	0.5G 3X	83	30	1/71	5	307	0.132	113	83	10.888	1	375	3	0.75	175	1.59	1.56	G1	0.029	6.72	0.192		0.192	0.22	0.024	0.181	1.56	17.821	17.712	18.215	18.191	18.407	19.048
1/100	1/100 to 2/100	5	0	0.000	0.000	0	3164			CHAMBER ONLY		0	3164	2/100	1	419	0	3164	0	17.527	1.08	(2x)825	3	0	2990	2.8	2		0	0	0		0	0	0	0	0	4.219	4.029	7.053	7.053	7.053	6.975
2/100	2/100 to 3/100	5	307	0.072	0.072	61	3233	2	3	3TCS0_UNCHECKED	2G 3X	248	2985	3/EXT2	5.87	295	1.007	3990	8678	1.655	1.08	1350	3	6.06	5559	3.88	6.06	T10	0.523	1.91	0.996	2.18	1.141	0.74	0.012	1.35	6.06	4.009	3.991	5.912	5.9	7.053	7.389
3/100										HW outlet																																5.9	7.499
1/ORIFICE	1/103 to 1/100									PC					1	419	0	0	0	0.25	0.5	225	PVC SN1	0	32	0.8	2		0	2	0		0	0	0	0	0	6.4	6.399	7.053	7.053	7.053	6.628
1/EXT1	1/EXT1 to 2/EXT1	5	307	0.383	0.379	323	323			SAG_BK_4800_Lip	SAG	82	241	2/EXT1	5	307	0.379	323	82	21.608	1	600	3	0.29	614	2.17	1.51		0	0	0		0	0	0	0.148	1.51	4.801	4.585	7.053	7.053	7.053	6.903
2/EXT1	2/EXT1 to 3/EXT1	5	307	0.004	0.004	4	245	0.6	3	GRADE_BK_2400_Lip	0.5G 3X	145	99	2/EXT2	5.24	304	0.383	323	224	48.472	0.5	600	3	0.79	434	1.54	1.55		0	0	0		0	0	0	0.305	1.55	4.555	4.313	7.053	7.053	7.053	6.93
3/EXT1	3/EXT1 to 4/EXT2	5	307	0.006	0.006	5	5	1	3	GRADE_BK_2400_Lip		4	1	3/EXT2	5.76	297	0.389	321	220	4.889	0.25	600	3	0.78	307	1.09	1.18		0	0	0		0	0	0	0.376	1.18	4.253	4.241	7.053	7.053	7.053	7.193
1/EXT2	1/EXT2 to 2/EXT2	5	307	0.057	0.056	48	48			1200x1200		48	0	2/EXT2	5	307	0.056	48	48	9.631	1	450	3	0.3	285	1.79	1.33	G1	0.005	2.05	0.009		0.009	0.03	0.003	0.124	1.33	4.693	4.596	7.056	7.053	7.065	7.984
2/EXT2	2/EXT2 to 3/EXT2	5	307	0.107	0.106	90	422			SAG_BK_4800_Lip	SAG	82	340	3/EXT2	5.12	305	0.162	137	129	27.476	0.67	675	3	0.36	687	1.92	1.47		0	0	0		0	0	0	0.198	1.47	4.399	4.216	7.053	7.053	7.053	6.767
3/EXT2	3/EXT2 to 4/EXT2	5	307	0.135	0.133	113	7895			SAG_BK_4800_Lip	SAG	7895	0	13/1	5.31	303	0.294	247	8021	12.571	0.15	750	3	18.15	431	0.98	18.15		0	0	0		0	0	0	0.75	18.15	4.153	4.134	7.053	7.053	7.053	6.686
4/EXT2	4/EXT2 to 2/100									ACC_CHA_1800					5.83	296	0.685	563	8236	25.118	0.1	1050	3	9.51	864	1	9.51		0	0	0		0	0	0	1.05	9.51	4.094	4.069	7.053	7.053	7.053	7.181
1/EXT3	1/EXT3 to 2/EXT3	5	307	0.154	0.152	129	129	2.25	3	GRADE_BK_4800_Lip	2G 3X	94	36	3/EXT3	5	307	0.152	129	94	12.568	4	375	3	0.85	351	3.18	2.69	G1	0.037	4.84	0.177		0.177	0.28	0.036	0.132	2.69	7.167	6.664	7.736	7.701	7.913	9.662
2/EXT3	2/EXT3 to 3/EXT3									ACC_CHA_1050					5.08	306	0.17	145	109	12.568	2	375	3	0.99	248	2.25	2.17	T1/T2	0.05	0.24	0.012		0.012	0.39	0.048	0.174	2.17	6.614	6.363	7.689	7.64	7.701	9.341
3/EXT3	3/EXT3 to 4/EXT3	5	307	0.015	0.015	12	48	2.13	3	GRADE_BK_2400_Lip	2G 3X	37	11	4/EXT3	5.17	305	0.185	157	145	23.257	1.5	375	3	1.32	215	1.95	2.09	T1	0.088	0.85	0.075		0.075	0.69	0.16	0.226	2.09	6.313	5.964	7.565	7.405	7.64	9.026
4/EXT3	4/EXT3 to 5/EXT3	5	307	0.034	0.034	29	40	2	3	GRADE_BK_2400_Lip	2G 3X	31	9	5/EXT3	5.36	302	0.219	184	175	19.938	2	375	3	1.58	248	2.25	2.43	T1/T2	0.128	0.66	0.085		0.085	0.99	0.198	0.232	2.43	5.922	5.523	7.321	7.123	7.405	8.537
5/EXT3	5/EXT3 to 2/100	5	307	0.031	0.031	26	35	1.5	3	GRADE_BK_2400_Lip	1G 3X	28	8	2/100	5.5	300	0.25	208	201	44.29	2	450	3	1.26	403	2.54	2.53	T1	0.081	-0.06	-0.005		-0.005	0.5	0.219	0.224	2.53	5.423	4.537	7.128	6.908	7.123	8.125
1/EXT4	1/EXT4 to 2/EXT3	5	307	0.019	0.019	16	16			900x900		16	0	LOST	5	307	0.019	16	16	2.967	2	375	3	0.14	248	2.25	1.26	G1	0.001	7	0.007		0.007	2.85	0.035	0.064	1.26	7.792	7.732	7.881	7.797	7.889	9.186
1/X2	1/X2 to 2/X2	5	307	1.827	1.806	1540	1540			1500x1500		635	905	2/33	5	307	1.806	1540	635	158.331	0.3	750	3	1.44	610	1.38	1.57	G1	0.105	3.58	0.377		0.377	0.33	0.515	0.647	1.57	17.59	17.115	19.195	18.681	19.573	19.6
2/X2	2/X2 to 3/X2									ACC_CHA_1350					6.68	284	1.806	1427	522	69.719	0.2	750	3	1.18	498	1.13	1.28	T10	0.071	1.93	0.137	2.2	0.157	0.22	0.153	0.653	1.28	17.015	16.876	18.544	18.391	18.7	19.6
3/X2	3/X2 to 4/X2	0	0	0.000	0.000	0	0			1200x1200		0	0	2/1	7.59	272	1.806	1366	461	7.796	0.2	750	3	1.04	498	1.13	1.28	T1/T2	0.055	0.22	0.012		0.012	0.17	0.013	0.57	1.28	16.816	16.8	18.378	18.365	18.391	19.6
4/X2	4/X2 to 5/X2									ACC_CHA_1200					7.7	271	1.806	1359	454	22.667	0.2	825	3	0.85	642	1.2	1.3	T2/T5	0.037	0.26	0.009		0.009	0.1	0.023	0.512	1.3	16.74	16.695	18.355	18.333	18.365	19.563
5/X2	5/X2 to 6/X2									ACC_CHA_1350					7.99	267	1.806	1339	434	55.554	0.5	900	3	0.68	1281	2.01	1.82	T2/T5	0.024	0.43	0.01		0.01	0.06	0.032	0.361	1.82	16.645	16.367	18.322	18.291	18.333	19.592
6/X2	6/X2 to 7/X2									ACC_CHA_1500					8.49	260	5.812	4200	883	34.884	0.5	1050	3	1.02	1932	2.23	2.18	T5/T8	0.053	1.2	0.063	1.24	0.066	0.1	0.036	0.498	2.18	16.317	16.142	18.227	18.191	18.293	19.367
7/X2	7/X2 to 8/X2									ACC_CHA_1500					8.76	257	5.998	4275	1102	77.956	0.4	1050	3	1.27	1728	2	2.11	T2	0.083	0.28	0.023		0.023	0.16	0.127	0.61	2.11	16.091	15.78	18.168	18.041	18.191	19.134
8/X2	8/X2 to 9/X2									ACC_CHA_1500					9.38	248	6.22	4291	1236	75.467	0.25	1050	3	1.43	1366	1.58	1.79	T1/T2	0.104	0.26	0.027		0.027	0.2	0.154	0.782	1.79	15.729	15.54	18.014	17.859	18.041	18.628
9/X2	9/X2 to 10/X2									ACC_CHA_1500					10.08	239	6.436	4277	1259	7.24	0.5	1050	3	1.45	1932	2.23	2.38	T1/T2	0.108	0.25	0.027		0.027	0.21	0.015	0.618	2.38	15.52	15.484	17.833	17.817	17.859	18.137
10/X2	10/X2 to 11/X2									ACC_CHA_1500					10.13	239	6.436	4268	1250	27.651	0.5	1050	3	1.44	1932	2.23	2.37	T2/T5	0.106	0.57	0.06		0.06	0.21	0.058	0.615	2.37	15.403	15.265	17.757	17.699	17.817	18.091
11/X2	11/X2 to 12/X2									ACC_CHA_1500					10.33	237	6.628	4359	1252	23.424	0.5	1050	3	1.45	1932	2.23	2.37	T8/T10	0.065	1.76	0.115	1.91	0.125	0.13	0.03	0.616	2.37	15.184	15.067	17.584	17.554	17.709	17.941
12/X2	12/X2 to 13/X2									ACC_CHA_1500					10.49	235	8.602	5618	1196	26.747	0.5	1200	3	1.06	2758	2.44	2.35	T1/T2	0.057	0.2	0.012		0.012	0.09	0.025	0.553	2.35	15.006	14.872	17.542	17.517	17.554	17.814
13/X2	13/X2 to 14/X2									ACC_CHA_1800					7.24	277	8.199	6309	1285	10.075	1	1200	3	1.14	3900	3.45	3.09	T10	0	1.87	0	2.08	0	0	0	0.474	3.09	14.709	14.608	17.517	17.517	17.517	17.603
14/X2	14/X2 to 15/X2	5	307	0.234	0.231	197	5516			2TCS0_SAG_UNCHECKED	SAG	5516	0	15/X2	7.29	276	8.434	6472	6768	15.273	0.74	1200	3	5.98	3349	2.96	5.98	G1/T1	0.576	2.98	1.719		1.719	0.93	0.138	1.2	5.98	14.588	14.476	15.798	15.656	17.517	17.517
OUT/X2										HW outlet																																15.656	15.921

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 550.dwg

1% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 2 OF 2

gassman development perspectives
est 1985

planning | environment | landscape | engineering | survey

T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project: VANTAGE YATALA STAGE 1

Site Address: 60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

1% AEP STORMWATER DRAINAGE CALCULATIONS TABLES SHEET 2 OF 2

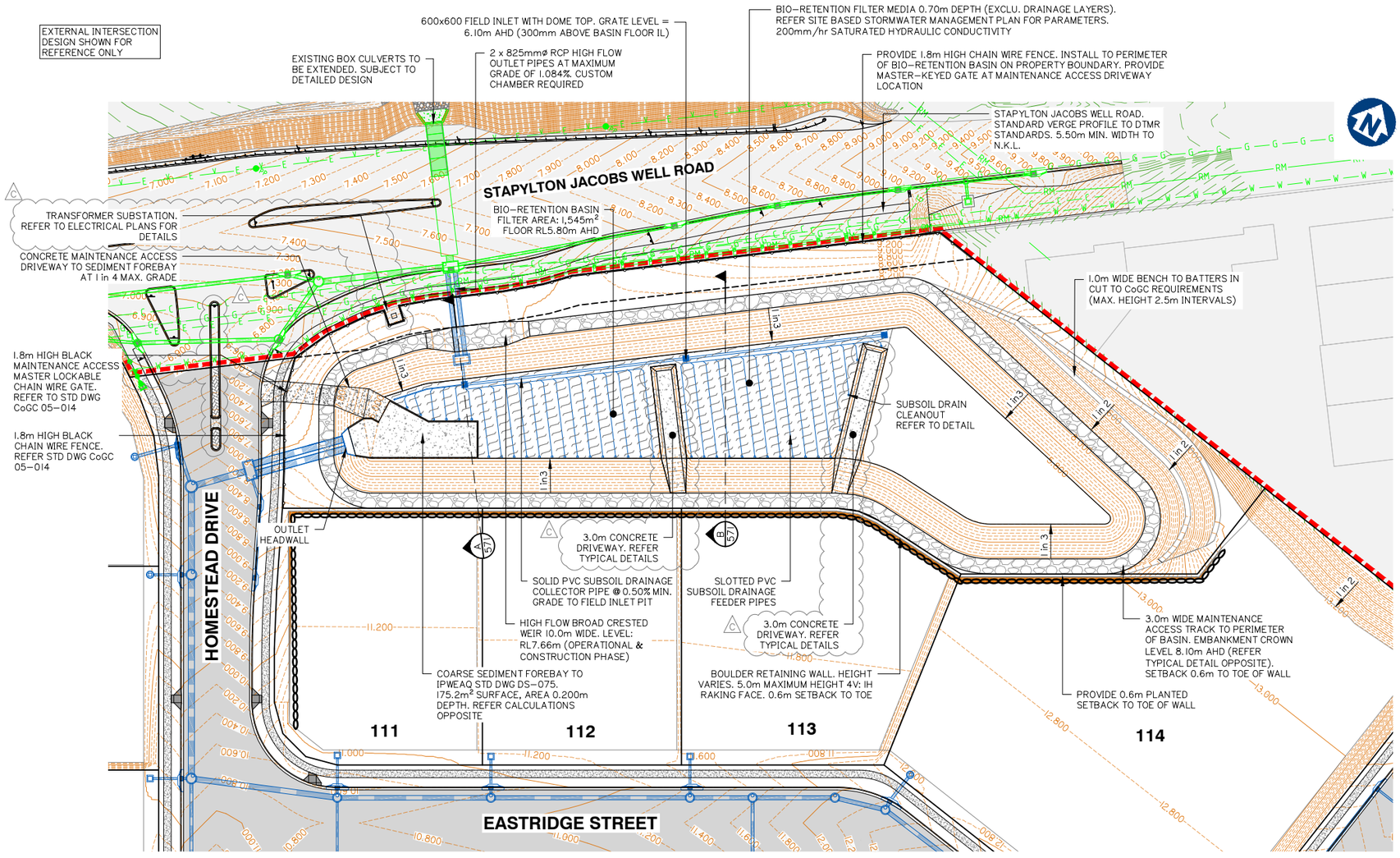
Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

NOT APPLICABLE

Scale at A1:	NOT APPLICABLE
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 553
Rev. No: B



BIORETENTION BASIN 1 LAYOUT PLAN

SCALE 1:500 (A1)

BIO-RETENTION NOTES:

MINIMUM BIO-RETENTION 'PROFILE' IS TO BE 1.00m AND IS TO CONSIST OF THE FOLLOWING:

* 0.70 OF SANDY LOAM MATERIAL WITH A HYDRAULIC CONDUCTIVITY OF 200mm/h AND A PARTICLE SIZE OF 0.45-0.50mm.
* 0.10m OF COURSE SAND. PARTICLE SIZE TYPICALLY 0.5-2.0mm.
* 0.20m OF GRAVEL DRAINAGE. PARTICLE SIZE 2-5mm SCREENING.

AGRICULTURAL PIPE TO BE INCLUDED IN FREE DRAINING AREAS TO ASSIST IN DRYING OUT THE DEVICE

BIO RETENTION – COARSE SEDIMENT FOREBAY SIZING GUIDE CALCULATIONS

$V_s = A_c \times R \times L_o \times F = 7.234\ m^3$

$R = 1 - \left[1 + \frac{1}{n} \times \frac{V_s}{0.7 A_f}\right]^{-n}$

$0.8 = 1 - \left[\frac{1 + \frac{0.10}{0.5}}{2.423/A_f}\right]^{-0.5}$ $A_f = 234.72\ m^2$

$D_s = \frac{V_s}{A_f}$ $D_s = \frac{7.234}{234.72} = 0.031\ m$

OPTIMIZATION OF MINIMUM FOREBAY SIZE:

$D_s = \frac{7.234\ m^3}{175.2\ m^2} = 0.041\ m$

V_s = 7.234 m³ (Workings Above)

A_c = 15.071 ha (Refer Catchment Plans)

UNMITIGATED POST-DEVELOPMENT FLOW
Q = 1.956 m³/s (3 month ARI = 0.5 x 63.2% AEP)

V_s = 0.1 m/s (Recommended for 1mm Particle)

R = 0.8 (Recommended 80% Capture)

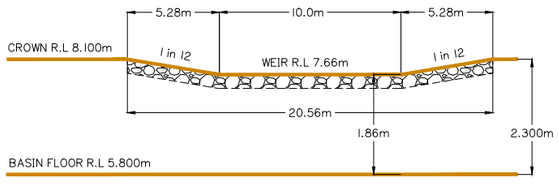
L_o = 0.6 (From Healthy Waterways Guide)

n = 0.5 (Recommended Turbulence)

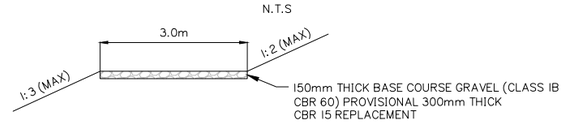
F_c = 1.0 (Frequency of Clean Out / Yr)

REFER TO BIO RETENTION TECHNICAL DESIGN GUIDELINES FOR FURTHER INFORMATION

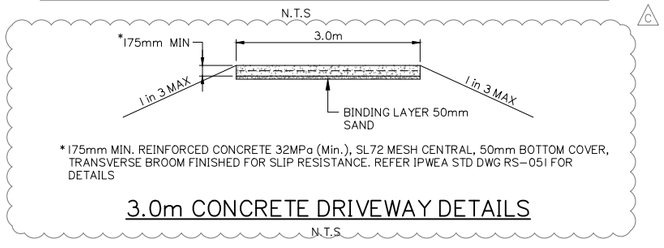
AEP (%)	MAX. WATER ELEVATION (m) A.H.D	MAX. WATER DEPTH (m)
63.2	6.635	0.835
50	6.720	0.920
20	7.057	1.257
10	7.179	1.379
5	7.256	1.456
2	7.357	1.557
1	7.489	1.689



EMERGENCY WEIR – TYPICAL ELEVATION

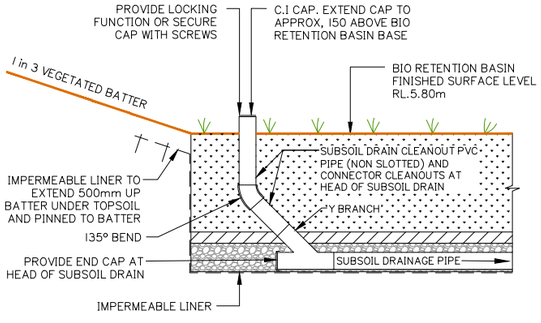


MAINTENANCE ACCESS TRACK – TYPICAL SECTION



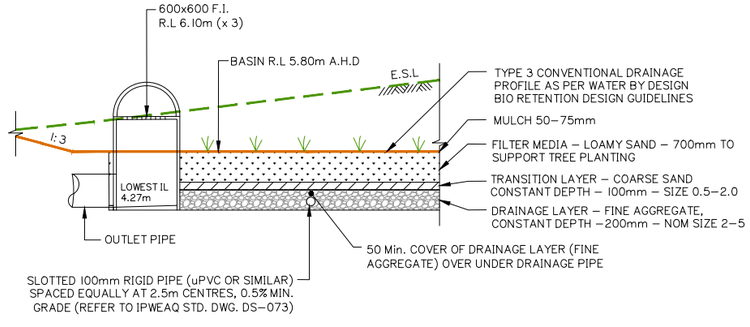
3.0m CONCRETE DRIVEWAY DETAILS

N.T.S



SUBSOIL DRAIN CLEANOUT – IN BASIN

N.T.S



TYPICAL BIO-RETENTION BASIN DETAIL

N.T.S

OPERATIONAL PHASE BIORETENTION BASIN SHEET 1 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 570-571.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

OPERATIONAL PHASE BIORETENTION BASIN SHEET 1 OF 2

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

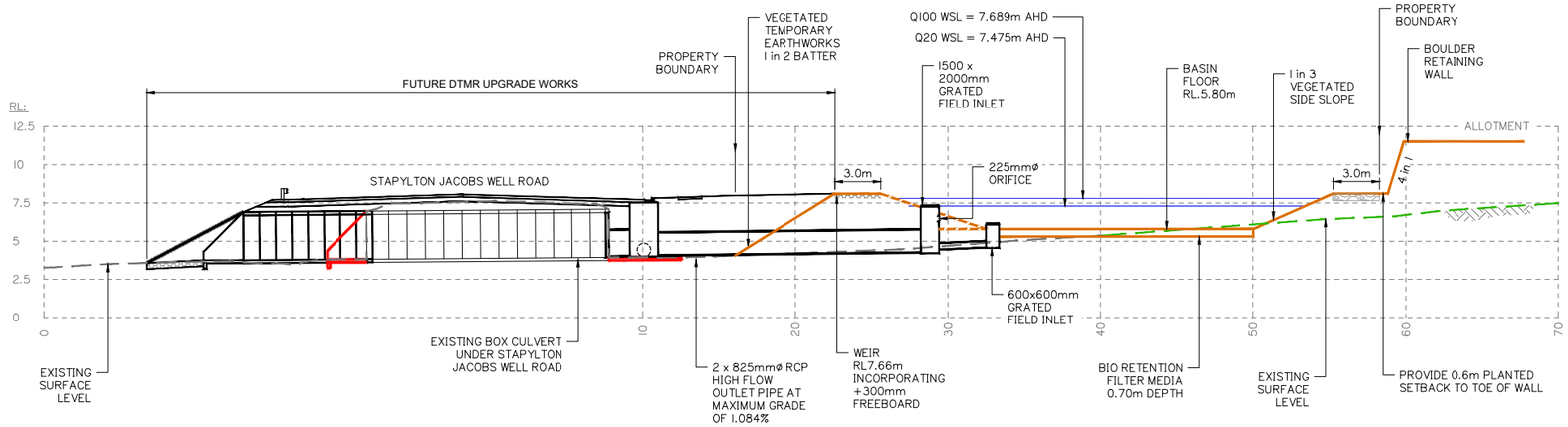
0 10 20 30 40 50

1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

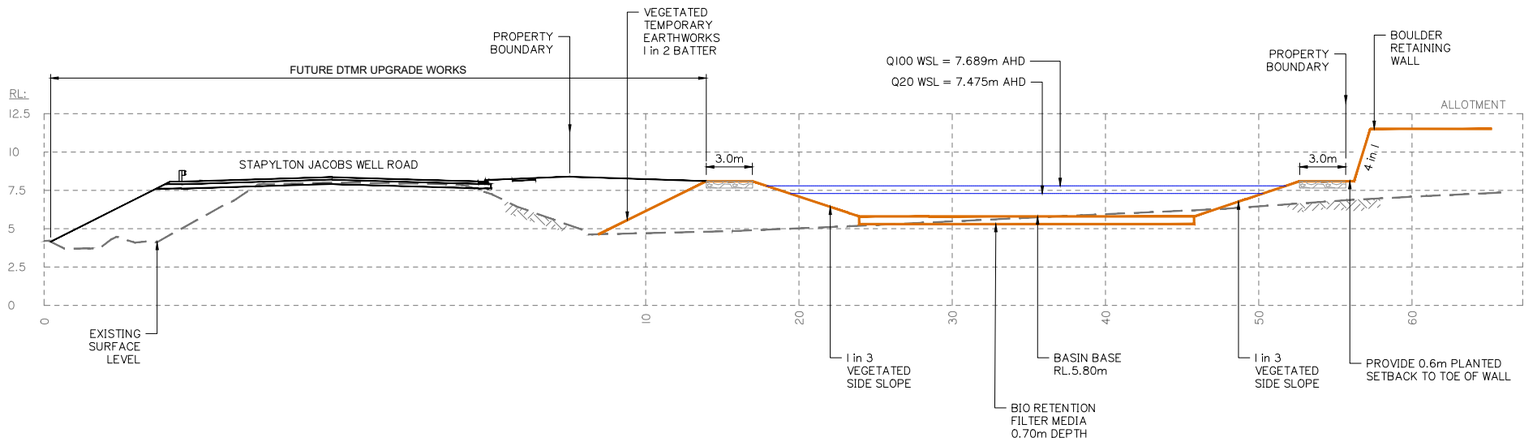
Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

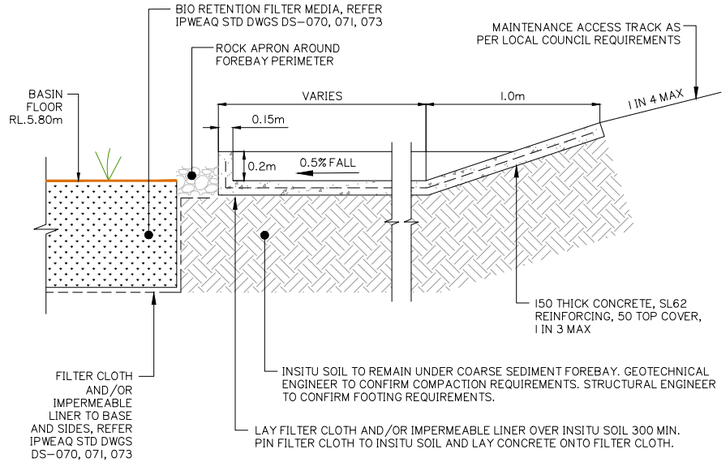
Drawing No: 5941 ENG OPW1 570
Rev. No: C

SECTION A
NTS
570

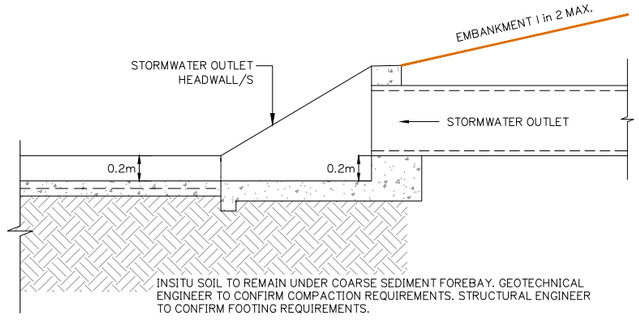


SECTION B
NTS
570





COURSE SEDIMENT FOREBAY TYPICAL SECTION
N.T.S



TYPICAL STORMWATER OUTLET TO SEDIMENT FOREBAY
N.T.S

OPERATIONAL PHASE BIORETENTION BASIN SHEET 2 OF 2

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 570-571.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1 (B)

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

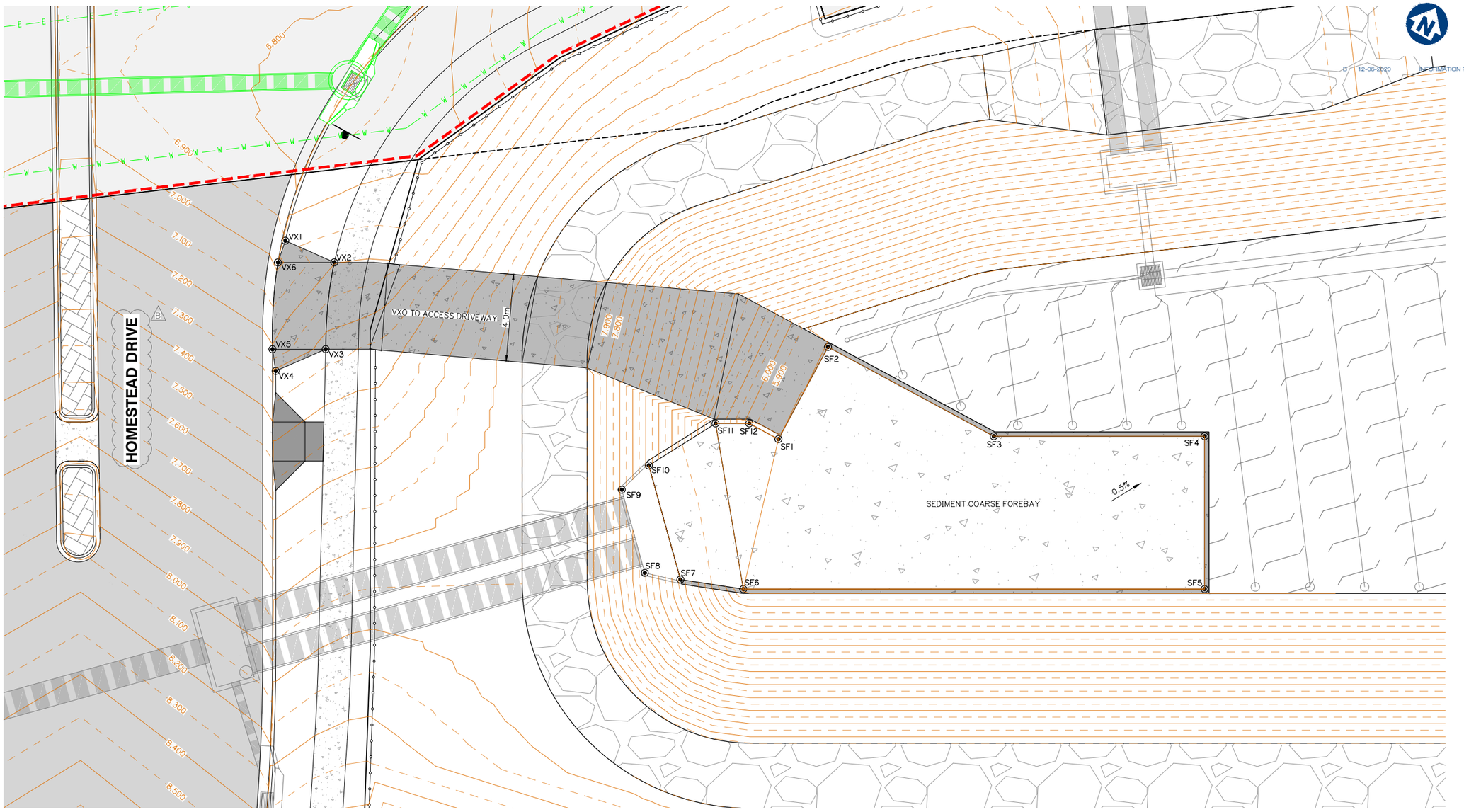
DRAWING TITLE
OPERATIONAL PHASE BIORETENTION BASIN SHEET 2 OF 2

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
NOT APPLICABLE

Scale at A1:	NTS
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 571
Rev. No: B



VXO TO ACCESS DRIVEWAY SETOUT TABLE				
POINT	EASTING	NORTHING	RL (m AHD)	DESCRIPTION
VX1	2208.421	7017.003	7.064	BACK OF KERB
VX2	2210.880	7017.223	7.195	RAMP
VX3	2212.468	7013.530	7.455	RAMP
VX4	2210.941	7011.540	7.420	RAMP
VX5	2210.325	7012.342	7.212	INVERT OF KERB
VX6	2208.606	7015.963	6.978	INVERT OF KERB

COARSE SEDIMENT FOREBAY SETOUT TABLE			
POINT	EASTING	NORTHING	RL (m AHD)
SF1	2232.724	7020.018	5.800
SF2	2232.665	7024.838	5.800
SF3	2241.340	7024.945	5.750
SF4	2249.837	7029.652	5.720
SF5	2253.250	7023.497	5.800
SF6	2234.654	7013.194	5.800
SF7	2231.908	7012.177	6.000
SF8	2230.325	7011.648	6.000
SF9	2227.539	7014.481	6.000
SF10	2228.087	7016.063	6.000
SF11	2229.841	7019.247	5.800
SF12	2231.200	7020.000	5.800

OPERATIONAL PHASE BIORETENTION BASIN SETOUT DETAILS

Q:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 572.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

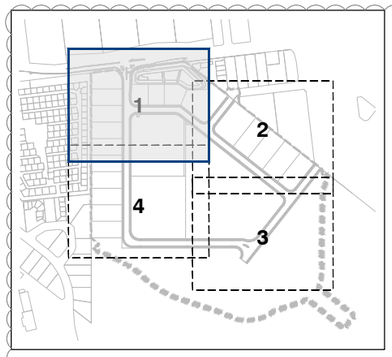
DRAWING TITLE
OPERATIONAL PHASE BIORETENTION BASIN SETOUT DETAILS

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 2 4 6 8 10
1:100 (FULL SIZE A1)
1:200 (HALF SIZE A3)

Scale at A1:	1:100
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 572
Rev. No: C



KEY PLAN
SCALE 1: 7500

WARNING
BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

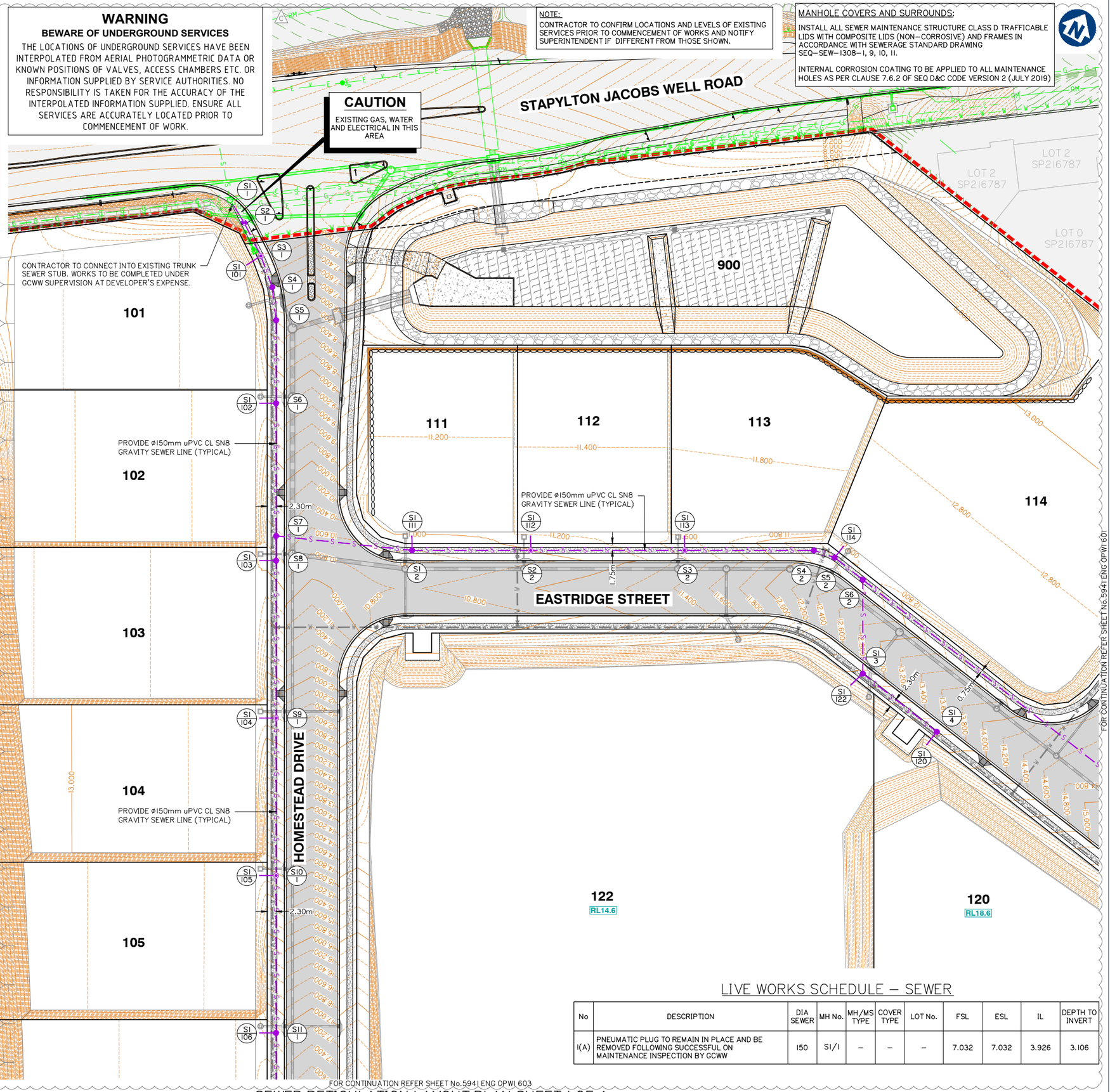
NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

MANHOLE COVERS AND SURROUNDS:

INSTALL ALL SEWER MAINTENANCE STRUCTURE CLASS D TRAFFICABLE LIDS WITH COMPOSITE LIDS (NON-CORROSIVE) AND FRAMES IN ACCORDANCE WITH SEWERAGE STANDARD DRAWING SEQ-SEW-1308-1, 9, 10, 11.

INTERNAL CORROSION COATING TO BE APPLIED TO ALL MAINTENANCE HOLES AS PER CLAUSE 7.6.2 OF SEQ D&C CODE VERSION 2 (JULY 2019)

CAUTION
EXISTING GAS, WATER AND ELECTRICAL IN THIS AREA



SEWER STRUCTURE SETOUT TABLE

STRUCTURE NO.	EASTING	NORTHING
SI5/1	2368.90	6688.885
SI4/1	2349.29	6724.281
SI3/1	2329.68	6759.677
SI2/1	2310.071	6795.073
SI1/1	2290.461	6830.469
SI0/1	2270.851	6865.865
S9/1	2251.241	6901.261
S8/1	2231.631	6936.657
S7/1	2228.555	6942.211
S6/1	2212.022	6972.053
S5/1	2201.684	6990.713
S4/1	2196.694	6997.665
S3/1	2190.233	7003.277
S2/1	2182.335	7008.663
S1/1	2176.367	7012.026
S11/2	2654.719	6958.586
S10/2	2607.803	6966.203
S9/2	2562.897	6973.492
S8/2	2517.991	6980.782
S7/2	2462.883	6989.728
S6/2	2365.966	7005.462
S5/2	2356.880	7006.937
S4/2	2351.295	7005.964
S3/2	2322.216	6989.854
S2/2	2287.605	6970.679
S1/2	2260.911	6955.890
S7/1	2228.555	6942.211
S1/3	2377.653	6984.367
S6/2	2365.966	7005.462
S1/4	2394.873	6981.571
S1/3	2377.653	6984.367
S7/5	2466.432	6674.779
S6/5	2553.455	6722.991
S5/5	2638.359	6770.028
S4/5	2645.503	6772.099
S3/5	2684.442	6765.600
S2/5	2694.062	6824.858
S1/5	3072.962	6763.348
S1/6	2326.009	6803.990
S2/6	2331.422	6794.501
S1/LOT 101	2188.125	6999.412
S1/LOT 102	2208.26	6969.969
S1/LOT 103	2227.870	6934.573
S1/LOT 104	2247.480	6899.177
S1/LOT 105	2267.090	6863.781
S1/LOT 111	2259.093	6959.170
S1/LOT 112	2285.788	6973.959
S1/LOT 113	2320.398	6993.134
S1/LOT 114	2357.481	7010.638
S1/LOT 120	2401.559	6980.486
S1/LOT 122	2377.653	6984.367

LIVE WORKS SCHEDULE – SEWER

No	DESCRIPTION	DIA SEWER	MH No.	MH/MS TYPE	COVER TYPE	LOT No.	FSL	ESL	IL	DEPTH TO INVERT
1(A)	PNEUMATIC PLUG TO REMAIN IN PLACE AND BE REMOVED FOLLOWING SUCCESSFUL ON MAINTENANCE INSPECTION BY GCWW	150	S1/1	–	–	–	7.032	7.032	3.926	3.106

SEWER RETICULATION LAYOUT PLAN SHEET 1 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 600.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

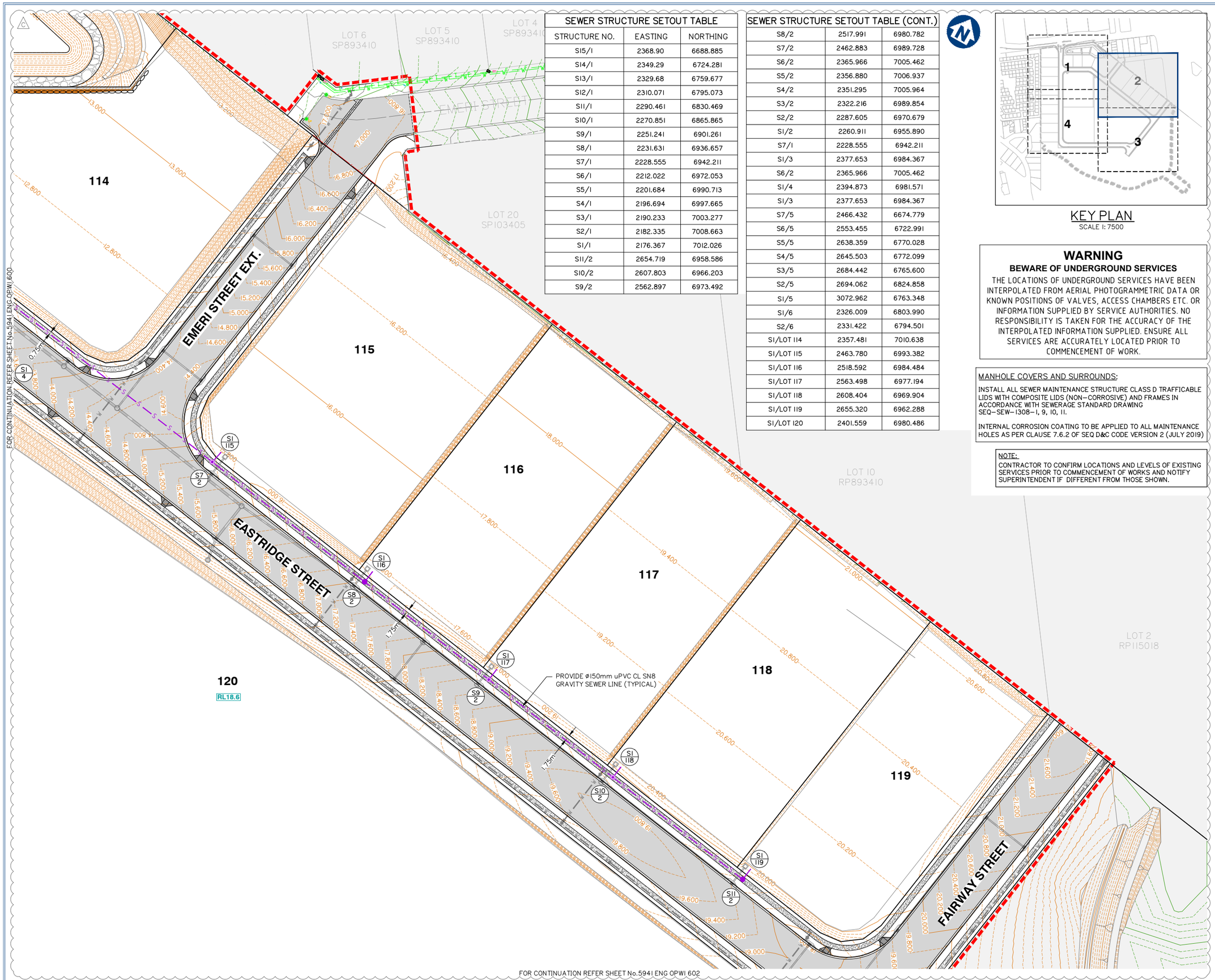
DRAWING TITLE
SEWER RETICULATION LAYOUT PLAN SHEET 1 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 600
Rev. No: C



SEWER STRUCTURE SETOUT TABLE		
STRUCTURE NO.	EASTING	NORTHING
SI5/1	2368.90	6688.885
SI4/1	2349.29	6724.281
SI3/1	2329.68	6759.677
SI2/1	2310.071	6795.073
SI1/1	2290.461	6830.469
SI0/1	2270.851	6865.865
S9/1	2251.241	6901.261
S8/1	2231.631	6936.657
S7/1	2228.555	6942.211
S6/1	2212.022	6972.053
S5/1	2201.684	6990.713
S4/1	2196.694	6997.665
S3/1	2190.233	7003.277
S2/1	2182.335	7008.663
S1/1	2176.367	7012.026
SI1/2	2654.719	6958.586
SI0/2	2607.803	6966.203
S9/2	2562.897	6973.492

SEWER STRUCTURE SETOUT TABLE (CONT.)		
S8/2	2517.991	6980.782
S7/2	2462.883	6989.728
S6/2	2365.966	7005.462
S5/2	2356.880	7006.937
S4/2	2351.295	7005.964
S3/2	2322.216	6989.854
S2/2	2287.605	6970.679
S1/2	2260.911	6955.890
S7/1	2228.555	6942.211
S1/3	2377.653	6984.367
S6/2	2365.966	7005.462
S1/4	2394.873	6981.571
S1/3	2377.653	6984.367
S7/5	2466.432	6674.779
S6/5	2553.455	6722.991
S5/5	2638.359	6770.028
S4/5	2645.503	6772.099
S3/5	2684.442	6765.600
S2/5	2694.062	6824.858
S1/5	3072.962	6763.348
S1/6	2326.009	6803.990
S2/6	2331.422	6794.501
S1/LOT 114	2357.481	7010.638
S1/LOT 115	2463.780	6993.382
S1/LOT 116	2518.592	6984.484
S1/LOT 117	2563.498	6977.194
S1/LOT 118	2608.404	6969.904
S1/LOT 119	2655.320	6962.288
S1/LOT 120	2401.559	6980.486

KEY PLAN
SCALE 1: 7500

WARNING
BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

MANHOLE COVERS AND SURROUNDS:

INSTALL ALL SEWER MAINTENANCE STRUCTURE CLASS D TRAFFICABLE LIDS WITH COMPOSITE LIDS (NON-CORROSIVE) AND FRAMES IN ACCORDANCE WITH SEWERAGE STANDARD DRAWING SEQ-SEW-1308-1, 9, 10, 11.

INTERNAL CORROSION COATING TO BE APPLIED TO ALL MAINTENANCE HOLES AS PER CLAUSE 7.6.2 OF SEQ D&C CODE VERSION 2 (JULY 2019)

NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

SEWER RETICULATION LAYOUT PLAN SHEET 2 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 600.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEWER RETICULATION LAYOUT PLAN SHEET 2 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

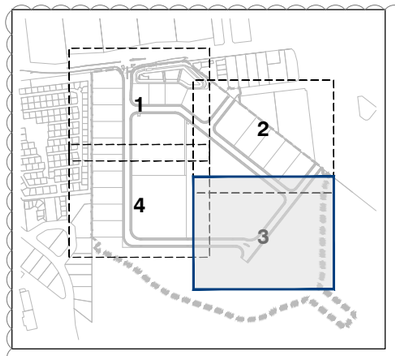
SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 601
Rev. No: C

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 601

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 603



KEY PLAN
SCALE 1: 7500

C

120
RL18.6

EASTRIDGE STREET

FAIRWAY STREET

HOMESTEAD DRIVE

FUTURE STAGES

PROVIDE ø150mm uPVC CL SN8 GRAVITY SEWER LINE (TYPICAL)

S1 119
S11 2
S2 5
S3 5
S4 5
S5 5
S6 5

2.30m

NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

MANHOLE COVERS AND SURROUNDS:

INSTALL ALL SEWER MAINTENANCE STRUCTURE CLASS D TRAFFICABLE LIDS WITH COMPOSITE LIDS (NON-CORROSIVE) AND FRAMES IN ACCORDANCE WITH SEWERAGE STANDARD DRAWING SEQ-SEW-1308-1, 9, 10, 11.

INTERNAL CORROSION COATING TO BE APPLIED TO ALL MAINTENANCE HOLES AS PER CLAUSE 7.6.2 OF SEQ D&C CODE VERSION 2 (JULY 2019)

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

SEWER STRUCTURE SETOUT TABLE

STRUCTURE NO.	EASTING	NORTHING
S15/1	2368.90	6688.885
S14/1	2349.29	6724.281
S13/1	2329.68	6759.677
S12/1	2310.071	6795.073
S11/1	2290.461	6830.469
S10/1	2270.851	6865.865
S9/1	2251.241	6901.261
S8/1	2231.631	6936.657
S7/1	2228.555	6942.211
S6/1	2212.022	6972.053
S5/1	2201.684	6990.713
S4/1	2196.694	6997.665
S3/1	2190.233	7003.277
S2/1	2182.335	7008.663
S1/1	2176.367	7012.026
S11/2	2654.719	6958.586
S10/2	2607.803	6966.203
S9/2	2562.897	6973.492
S8/2	2517.991	6980.782
S7/2	2462.883	6989.728
S6/2	2365.966	7005.462
S5/2	2356.880	7006.937
S4/2	2351.295	7005.964
S3/2	2322.216	6989.854
S2/2	2287.605	6970.679
S1/2	2260.911	6955.890
S7/1	2228.555	6942.211
S1/3	2377.653	6984.367
S6/2	2365.966	7005.462
S1/4	2394.873	6981.571
S1/3	2377.653	6984.367
S7/5	2466.432	6674.779
S6/5	2553.455	6722.991
S5/5	2638.359	6770.028
S4/5	2645.503	6772.099
S3/5	2684.442	6765.600
S2/5	2694.062	6824.858
S1/5	3072.962	6763.348
S1/6	2326.009	6803.990
S2/6	2331.422	6794.501
S1/LOT 120	2401.559	6980.486

SEWER RETICULATION LAYOUT PLAN SHEET 3 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 600.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

C
VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEWER RETICULATION LAYOUT PLAN SHEET 3 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

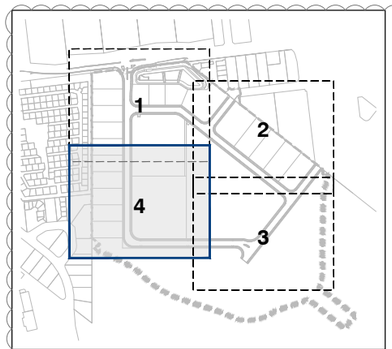
0 10 20 30 40 50

1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 602
Rev. No: C

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 600



KEY PLAN
SCALE 1: 7500

SEWER STRUCTURE SETOUT TABLE

STRUCTURE NO.	EASTING	NORTHING
SI5/1	2368.90	6688.885
SI4/1	2349.29	6724.281
SI3/1	2329.68	6759.677
SI2/1	2310.071	6795.073
SI1/1	2290.461	6830.469
SI0/1	2270.851	6865.865
S9/1	2251.241	6901.261
S8/1	2231.631	6936.657
S7/1	2228.555	6942.211
S6/1	2212.022	6972.053
S5/1	2201.684	6990.713
S4/1	2196.694	6997.665
S3/1	2190.233	7003.277
S2/1	2182.335	7008.663
S1/1	2176.367	7012.026
SI1/2	2654.719	6958.586
SI0/2	2607.803	6966.203
S9/2	2562.897	6973.492
S8/2	2517.991	6980.782
S7/2	2462.883	6989.728
S6/2	2365.966	7005.462
S5/2	2356.880	7006.937
S4/2	2351.295	7005.964
S3/2	2322.216	6989.854
S2/2	2287.605	6970.679
S1/2	2260.911	6955.890
S7/1	2228.555	6942.211
S1/6	2326.009	6803.990
S2/6	2331.422	6794.501
S1/3	2377.653	6984.367
S6/2	2365.966	7005.462
S1/4	2394.873	6981.571
S1/3	2377.653	6984.367
S7/5	2466.432	6674.779
S6/5	2553.455	6722.991
S5/5	2638.359	6770.028
S4/5	2645.503	6772.099
S3/5	2684.442	6765.600
S2/5	2694.062	6824.858
S1/5	3072.962	6763.348
S1/6	2326.009	6803.990
S2/6	2331.422	6794.501
SI/LOT 106	2286.699	6828.385
SI/LOT 107	2306.309	6792.989
SI/LOT 108	2325.919	6757.593
SI/LOT 109	2345.529	6722.197
SI/LOT 110	2365.139	6686.801
SI/LOT 121	2335.184	6796.585
SI/LOT FUTURE	2468.516	6671.018

105
106
107
108
109
110
121
122 RL14.6
120 RL18.6

PROVIDE ø150mm uPVC CL SN8 GRAVITY SEWER LINE (TYPICAL)

PROVIDE ø150mm uPVC CL SN8 GRAVITY SEWER LINE (TYPICAL)

PROVIDE ø150mm uPVC CL SN8 GRAVITY SEWER LINE (TYPICAL)

19.000

2.30m

HOMESTEAD DRIVE

FUTURE STAGES

NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

MANHOLE COVERS AND SURROUNDS:

INSTALL ALL SEWER MAINTENANCE STRUCTURE CLASS D TRAFFICABLE LIDS WITH COMPOSITE LIDS (NON-CORROSIVE) AND FRAMES IN ACCORDANCE WITH SEWERAGE STANDARD DRAWING SEQ-SEW-1308-1, 9, 10, 11.

INTERNAL CORROSION COATING TO BE APPLIED TO ALL MAINTENANCE HOLES AS PER CLAUSE 7.6.2 OF SEQ D&C CODE VERSION 2 (JULY 2019)

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 602

SEWER RETICULATION LAYOUT PLAN SHEET 4 OF 4

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

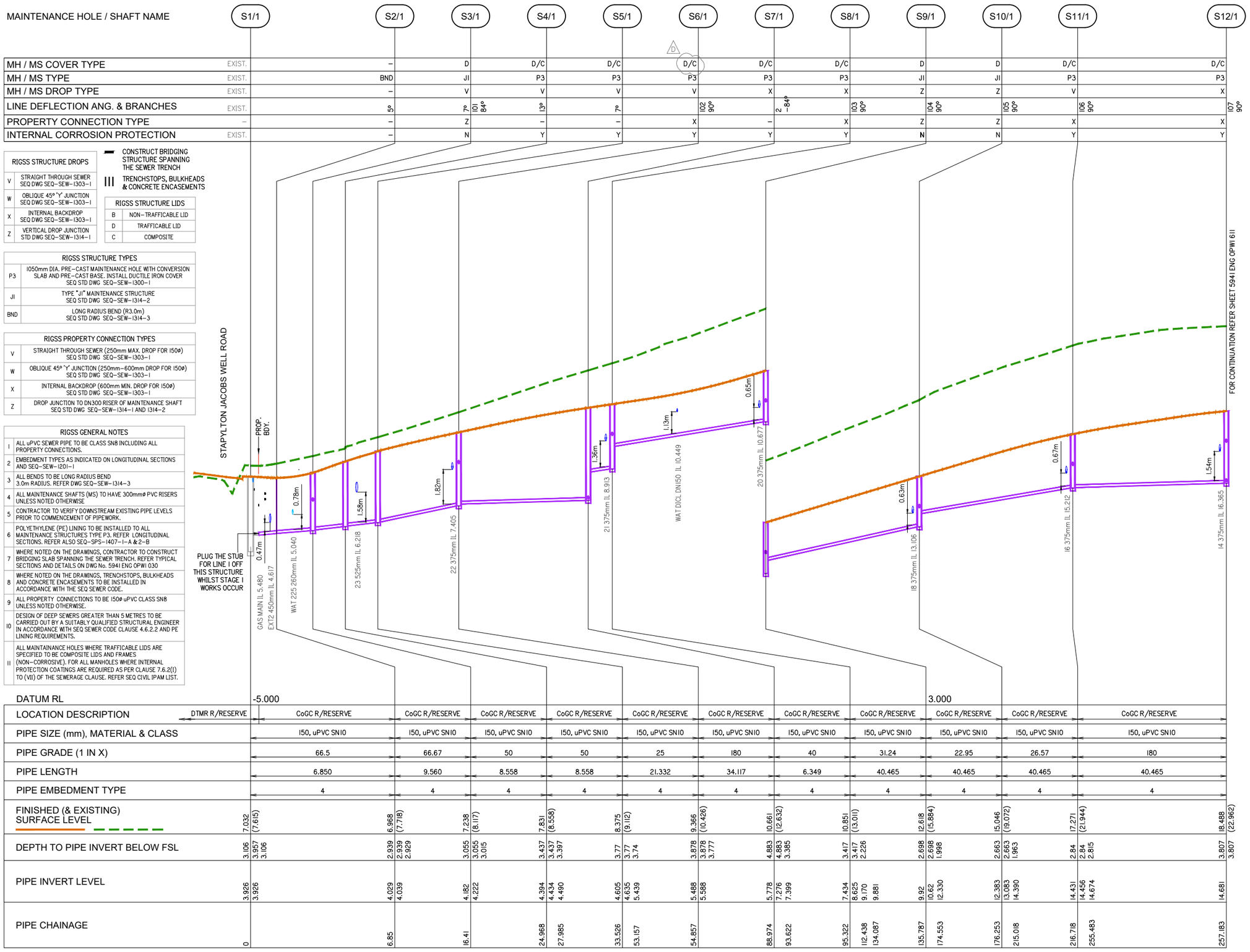
SEWER RETICULATION LAYOUT PLAN SHEET 4 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 603
Rev. No: C



LINE 1

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 1 OF 11

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 1 OF 11

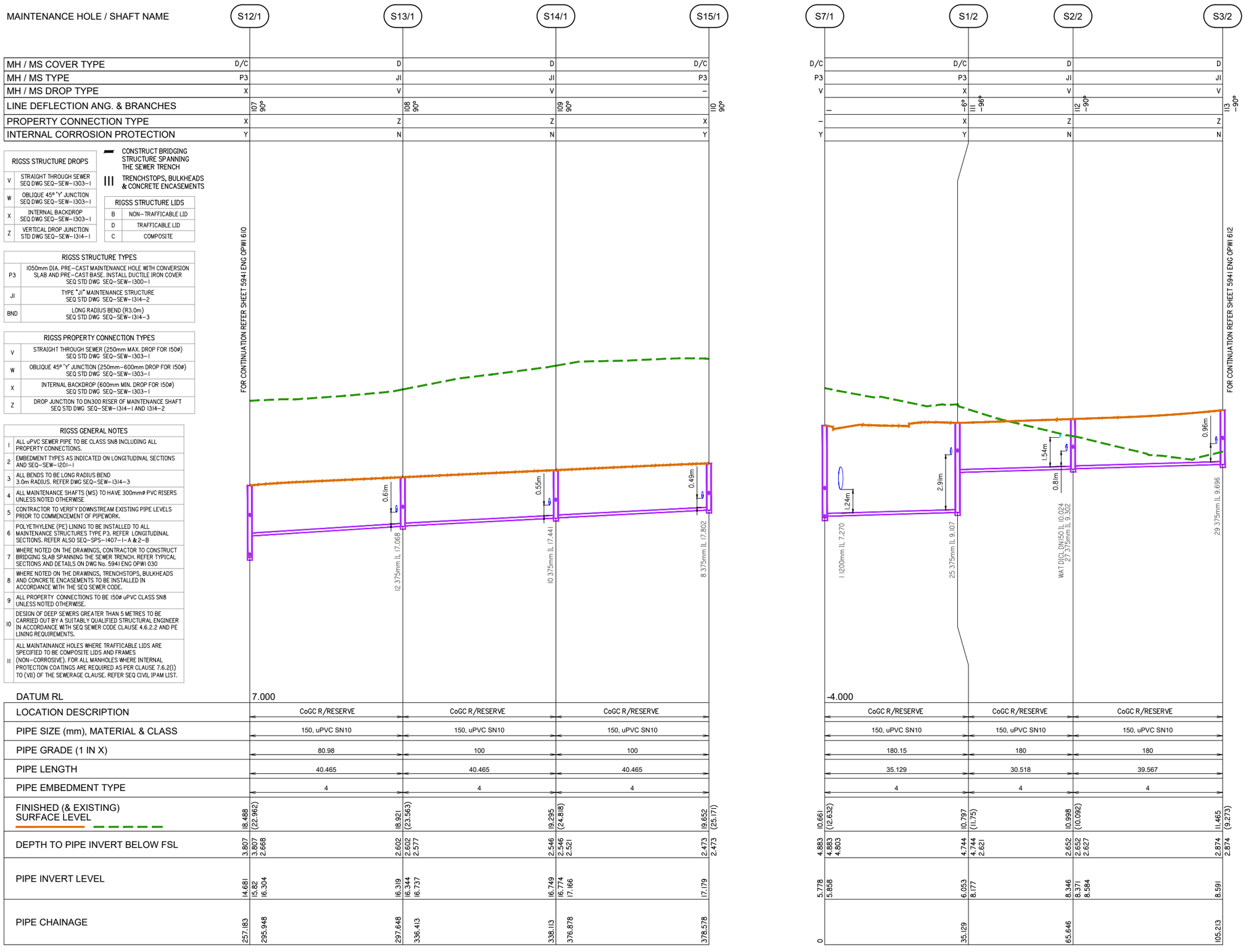
Issue	Date	Description	DRN	CHK
D	11-09-2020	AMENDED SEWER STRUCTURES	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:100 - Lengths are in Metres. 0 1 2 3 4 5 6 7 8

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	11-09-2020
Drawing No:	5941 ENG OPW1 610
Rev. No:	D



RIGSS STRUCTURE DROPS

V	STRAIGHT THROUGH SEWER SEQ DWG SEQ–SEW–1303–1
W	OBLIQUE 45° 'Y' JUNCTION SEQ DWG SEQ–SEW–1303–1
X	INTERNAL BACKDROP SEQ DWG SEQ–SEW–1303–1
Z	VERTICAL DROP JUNCTION STD DWG SEQ–SEW–1314–1

▬ CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH

||| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS

RIGSS STRUCTURE LIDS

B	NON–TRAFFICABLE LID
D	TRAFFICABLE LID
C	COMPOSITE

RIGSS STRUCTURE TYPES

P3	1050mm DIA. PRE–CAST MAINTENANCE HOLE WITH CONVERSION SLAB AND PRE–CAST BASE. INSTALL DUCTILE IRON COVER SEQ STD DWG SEQ–SEW–1300–1
JI	TYPE "JI" MAINTENANCE STRUCTURE SEQ STD DWG SEQ–SEW–1314–2
BND	LONG RADIUS BEND (R3.0m) SEQ STD DWG SEQ–SEW–1314–3

RIGSS PROPERTY CONNECTION TYPES

V	STRAIGHT THROUGH SEWER (250mm MAX. DROP FOR 150ø) SEQ STD DWG SEQ–SEW–1303–1
W	OBLIQUE 45° 'Y' JUNCTION (250mm–600mm DROP FOR 150ø) SEQ STD DWG SEQ–SEW–1303–1
X	INTERNAL BACKDROP (600mm MIN. DROP FOR 150ø) SEQ STD DWG SEQ–SEW–1303–1
Z	DROP JUNCTION TO DN300 RISER OF MAINTENANCE SHAFT SEQ STD DWG SEQ–SEW–1314–1 AND 1314–2

RIGSS GENERAL NOTES

1	ALL uPVC SEWER PIPE TO BE CLASS SN8 INCLUDING ALL PROPERTY CONNECTIONS.
2	EMBEDMENT TYPES AS INDICATED ON LONGITUDINAL SECTIONS AND SEQ–SEW–1201–1
3	ALL BENDS TO BE LONG RADIUS BEND 3.0m RADIUS. REFER DWG SEQ–SEW–1314–3
4	ALL MAINTENANCE SHAFTS (MS) TO HAVE 300mmø PVC RISERS UNLESS NOTED OTHERWISE
5	CONTRACTOR TO VERIFY DOWNSTREAM EXISTING PIPE LEVELS PRIOR TO COMMENCEMENT OF PIPEWORK.
6	POLYETHYLENE (PE) LINING TO BE INSTALLED TO ALL MAINTENANCE STRUCTURES TYPE P3. REFER LONGITUDINAL SECTIONS. REFER ALSO SEQ–SPS–1407–1–A & 2–B
7	WHERE NOTED ON THE DRAWINGS, CONTRACTOR TO CONSTRUCT BRIDGING SLAB SPANNING THE SEWER TRENCH. REFER TYPICAL SECTIONS AND DETAILS ON DWG No. 5941 ENG OPW1 030
8	WHERE NOTED ON THE DRAWINGS, TRENCHSTOPS, BULKHEADS AND CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH THE SEQ SEWER CODE.
9	ALL PROPERTY CONNECTIONS TO BE 150ø uPVC CLASS SN8 UNLESS NOTED OTHERWISE.
10	DESIGN OF DEEP SEWERS GREATER THAN 5 METRES TO BE CARRIED OUT BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER IN ACCORDANCE WITH SEQ SEWER CODE CLAUSE 4.6.2.2 AND PE LINING REQUIREMENTS.
11	ALL MAINTAINANCE HOLES WHERE TRAFFICABLE LIDS ARE SPECIFIED TO BE COMPOSITE LIDS AND FRAMES (NON–CORROSIVE). FOR ALL MANHOLES WHERE INTERNAL PROTECTION COATINGS ARE REQUIRED AS PER CLAUSE 7.6.2(I) TO (VII) OF THE SEWERAGE CLAUSE. REFER SEQ CIVIL IPAM LIST.

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 2 OF 11

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

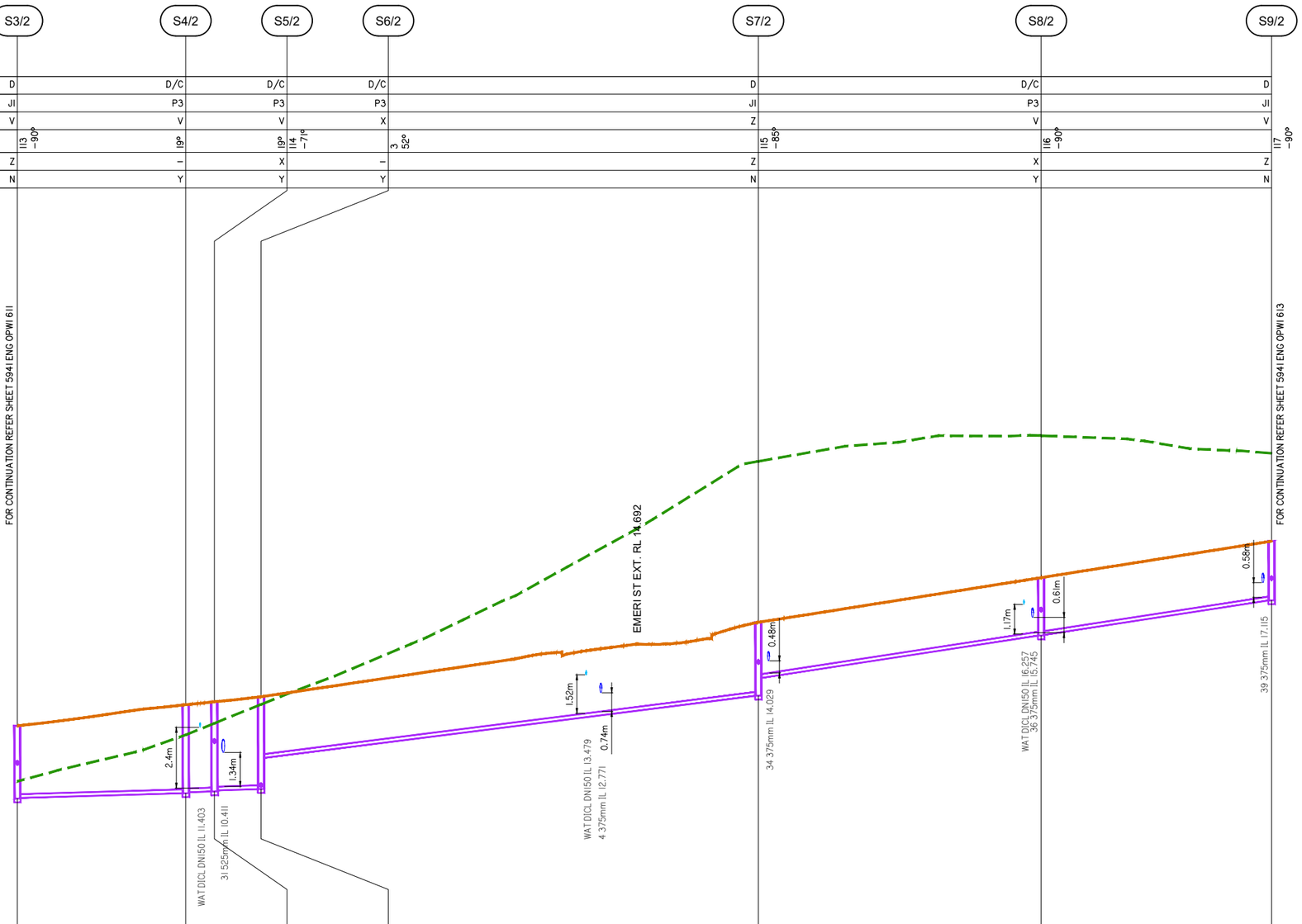
SCALE IN METRES
HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40
VERT: Scale 1:100 - Lengths are in Metres. 0 1 2 3 4 5 6 7 8

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 611
Rev. No: C

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg

MAINTENANCE HOLE / SHAFT NAME	S3/2	S4/2	S5/2	S6/2	S7/2	S8/2	S9/2
MH / MS COVER TYPE	D	D/C	D/C	D/C	D	D/C	D
MH / MS TYPE	JI	P3	P3	P3	JI	P3	JI
MH / MS DROP TYPE	V	V	V	X	Z	V	V
LINE DEFLECTION ANG. & BRANCHES	113 –90°	19°	114 –71°	3 52°	115 –85°	116 –90°	117 –90°
PROPERTY CONNECTION TYPE	Z	–	X	–	Z	X	Z
INTERNAL CORROSION PROTECTION	N	Y	Y	Y	N	Y	N



RIGSS STRUCTURE DROPS

V	STRAIGHT THROUGH SEWER SEQ DWG SEQ–SEW–1303–1
W	OBLIQUE 45° 'Y' JUNCTION SEQ DWG SEQ–SEW–1303–1
X	INTERNAL BACKDROP SEQ DWG SEQ–SEW–1303–1
Z	VERTICAL DROP JUNCTION STD DWG SEQ–SEW–1314–1

▬ CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH

||| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS

RIGSS STRUCTURE LIDS

B	NON–TRAFFICABLE LID
D	TRAFFICABLE LID
C	COMPOSITE

RIGSS STRUCTURE TYPES

P3	1050mm DIA. PRE–CAST MAINTENANCE HOLE WITH CONVERSION SLAB AND PRE–CAST BASE. INSTALL DUCTILE IRON COVER SEQ STD DWG SEQ–SEW–1300–1
JI	TYPE "JI" MAINTENANCE STRUCTURE SEQ STD DWG SEQ–SEW–1314–2
BND	LONG RADIUS BEND (R3.0m) SEQ STD DWG SEQ–SEW–1314–3

RIGSS PROPERTY CONNECTION TYPES

V	STRAIGHT THROUGH SEWER (250mm MAX. DROP FOR 150ø) SEQ STD DWG SEQ–SEW–1303–1
W	OBLIQUE 45° 'Y' JUNCTION (250mm–600mm DROP FOR 150ø) SEQ STD DWG SEQ–SEW–1303–1
X	INTERNAL BACKDROP (600mm MIN. DROP FOR 150ø) SEQ STD DWG SEQ–SEW–1303–1
Z	DROP JUNCTION TO DN300 RISER OF MAINTENANCE SHAFT SEQ STD DWG SEQ–SEW–1314–1 AND 1314–2

RIGSS GENERAL NOTES

1	ALL uPVC SEWER PIPE TO BE CLASS SN8 INCLUDING ALL PROPERTY CONNECTIONS.
2	EMBEDMENT TYPES AS INDICATED ON LONGITUDINAL SECTIONS AND SEQ–SEW–1201–1
3	ALL BENDS TO BE LONG RADIUS BEND 3.0m RADIUS. REFER DWG SEQ–SEW–1314–3
4	ALL MAINTENANCE SHAFTS (MS) TO HAVE 300mmø PVC RISERS UNLESS NOTED OTHERWISE
5	CONTRACTOR TO VERIFY DOWNSTREAM EXISTING PIPE LEVELS PRIOR TO COMMENCEMENT OF PIPEWORK.
6	POLYETHYLENE (PE) LINING TO BE INSTALLED TO ALL MAINTENANCE STRUCTURES TYPE P3. REFER LONGITUDINAL SECTIONS. REFER ALSO SEQ–SPS–1407–1–A & 2–B
7	WHERE NOTED ON THE DRAWINGS, CONTRACTOR TO CONSTRUCT BRIDGING SLAB SPANNING THE SEWER TRENCH. REFER TYPICAL SECTIONS AND DETAILS ON DWG No. 5941 ENG OPW1 030
8	WHERE NOTED ON THE DRAWINGS, TRENCHSTOPS, BULKHEADS AND CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH THE SEQ SEWER CODE.
9	ALL PROPERTY CONNECTIONS TO BE 150ø uPVC CLASS SN8 UNLESS NOTED OTHERWISE.
10	DESIGN OF DEEP SEWERS GREATER THAN 5 METRES TO BE CARRIED OUT BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER IN ACCORDANCE WITH SEQ SEWER CODE CLAUSE 4.6.2.2 AND PE LINING REQUIREMENTS.
11	ALL MAINTAINANCE HOLES WHERE TRAFFICABLE LIDS ARE SPECIFIED TO BE COMPOSITE LIDS AND FRAMES (NON–CORROSIVE). FOR ALL MANHOLES WHERE INTERNAL PROTECTION COATINGS ARE REQUIRED AS PER CLAUSE 7.6.2(I) TO (VII) OF THE SEWERAGE CLAUSE. REFER SEQ CIVIL IPAM LIST.

DATUM RL	3.000						
LOCATION DESCRIPTION	CoGC R/RESERVE	CoGC R/RESERVE	CoGC R/RESERVE	CoGC R/RESERVE	CoGC R/RESERVE	CoGC R/RESERVE	
PIPE SIZE (mm), MATERIAL & CLASS	150, uPVC SN10	150, uPVC SN10	150, uPVC SN10	150, uPVC SN10	150, uPVC SN10	150, uPVC SN10	
PIPE GRADE (1 IN X)	180	180	180	40	33.33	33.33	
PIPE LENGTH	33.243	5.670	9.205	98.186	55.829	45.494	
PIPE EMBEDMENT TYPE	4	4	4	4	4	4	
FINISHED (& EXISTING) SURFACE LEVEL	11.465 (9.273)	12.3 (11.106)	12.417 (11.563)	12.611 (12.308)	15.552 (21.907)	17.314 (22.92)	18.755 (22.225)
DEPTH TO PIPE INVERT BELOW FSL	2.874 2.874 2.849	3.499 3.499 3.459	3.545 3.545 3.505	3.647 3.647 2.44	2.901 2.901 2.201	2.288 2.288 2.263	2.338 2.338
PIPE INVERT LEVEL	8.591 8.616	8.801 8.84	8.872 8.912	8.963 10.197	12.651 13.351	15.026 15.052	16.417
PIPE CHAINAGE	105.213	138.456	144.126	153.331	251.517	307.346	352.84

LINE 2

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 3 OF 11

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 3 OF 11

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40
VERT: Scale 1:100 - Lengths are in Metres. 0 1 2 3 4 5 6 7 8

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 612
Rev. No: C

MAINTENANCE HOLE / SHAFT NAME		S9/2	S10/2	S11/2
MH / MS COVER TYPE		D	D	D/C
MH / MS TYPE		JI	JI	P3
MH / MS DROP TYPE		V	V	–
LINE DEFLECTION ANG. & BRANCHES		117 –90°	118 –90°	119 –90°
PROPERTY CONNECTION TYPE		Z	Z	X
INTERNAL CORROSION PROTECTION		N	N	Y

RIGSS STRUCTURE DROPS	
V	STRAIGHT THROUGH SEWER SEQ DWG SEQ–SEW–1303–1
W	OBLIQUE 45° 'Y' JUNCTION SEQ DWG SEQ–SEW–1303–1
X	INTERNAL BACKDROP SEQ DWG SEQ–SEW–1303–1
Z	VERTICAL DROP JUNCTION STD DWG SEQ–SEW–1314–1

▬ CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH

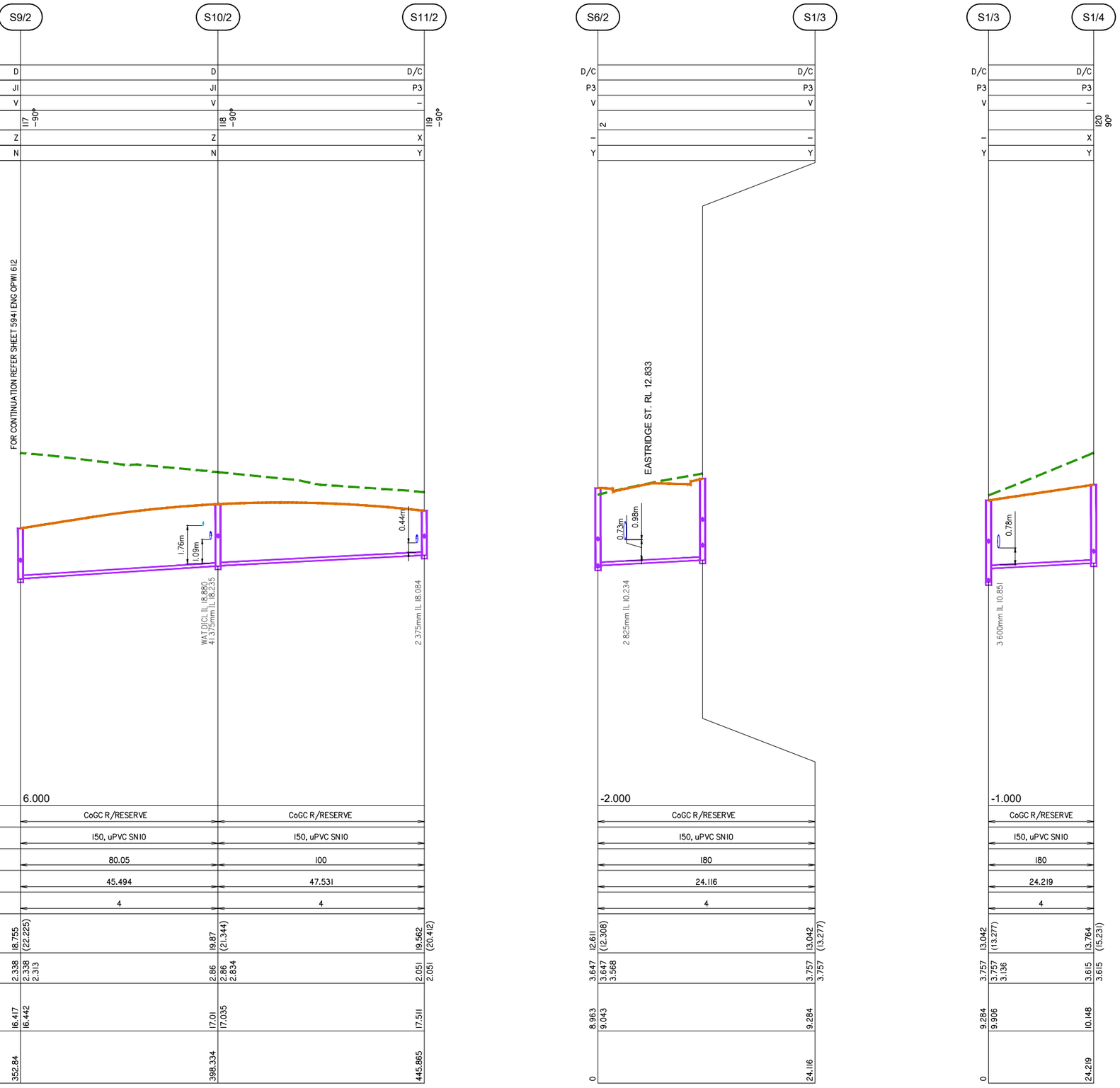
||| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS

RIGSS STRUCTURE LIDS	
B	NON–TRAFFICABLE LID
D	TRAFFICABLE LID
C	COMPOSITE

RIGSS STRUCTURE TYPES	
P3	1050mm DIA. PRE–CAST MAINTENANCE HOLE WITH CONVERSION SLAB AND PRE–CAST BASE. INSTALL DUCTILE IRON COVER SEQ STD DWG SEQ–SEW–1300–1
JI	TYPE "JI" MAINTENANCE STRUCTURE SEQ STD DWG SEQ–SEW–1314–2
BND	LONG RADIUS BEND (R3.0m) SEQ STD DWG SEQ–SEW–1314–3

RIGSS PROPERTY CONNECTION TYPES	
V	STRAIGHT THROUGH SEWER (250mm MAX. DROP FOR 150ø) SEQ STD DWG SEQ–SEW–1303–1
W	OBLIQUE 45° 'Y' JUNCTION (250mm–600mm DROP FOR 150ø) SEQ STD DWG SEQ–SEW–1303–1
X	INTERNAL BACKDROP (600mm MIN. DROP FOR 150ø) SEQ STD DWG SEQ–SEW–1303–1
Z	DROP JUNCTION TO DN300 RISER OF MAINTENANCE SHAFT SEQ STD DWG SEQ–SEW–1314–1 AND 1314–2

RIGSS GENERAL NOTES	
1	ALL uPVC SEWER PIPE TO BE CLASS SN8 INCLUDING ALL PROPERTY CONNECTIONS.
2	EMBEDMENT TYPES AS INDICATED ON LONGITUDINAL SECTIONS AND SEQ–SEW–1201–1
3	ALL BENDS TO BE LONG RADIUS BEND 3.0m RADIUS. REFER DWG SEQ–SEW–1314–3
4	ALL MAINTENANCE SHAFTS (MS) TO HAVE 300mmø PVC RISERS UNLESS NOTED OTHERWISE
5	CONTRACTOR TO VERIFY DOWNSTREAM EXISTING PIPE LEVELS PRIOR TO COMMENCEMENT OF PIPEWORK.
6	POLYETHYLENE (PE) LINING TO BE INSTALLED TO ALL MAINTENANCE STRUCTURES TYPE P3. REFER LONGITUDINAL SECTIONS. REFER ALSO SEQ–SPS–1407–1–A & 2–B
7	WHERE NOTED ON THE DRAWINGS, CONTRACTOR TO CONSTRUCT BRIDGING SLAB SPANNING THE SEWER TRENCH. REFER TYPICAL SECTIONS AND DETAILS ON DWG No. 5941 ENG OPW1 030
8	WHERE NOTED ON THE DRAWINGS, TRENCHSTOPS, BULKHEADS AND CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH THE SEQ SEWER CODE.
9	ALL PROPERTY CONNECTIONS TO BE 150ø uPVC CLASS SN8 UNLESS NOTED OTHERWISE.
10	DESIGN OF DEEP SEWERS GREATER THAN 5 METRES TO BE CARRIED OUT BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER IN ACCORDANCE WITH SEQ SEWER CODE CLAUSE 4.6.2.2 AND PE LINING REQUIREMENTS.
11	ALL MAINTAINANCE HOLES WHERE TRAFFICABLE LIDS ARE SPECIFIED TO BE COMPOSITE LIDS AND FRAMES (NON–CORROSIVE). FOR ALL MANHOLES WHERE INTERNAL PROTECTION COATINGS ARE REQUIRED AS PER CLAUSE 7.6.2(I) TO (VII) OF THE SEWERAGE CLAUSE. REFER SEQ CIVIL IPAM LIST.



DATUM RL		6.000		-2.000		-1.000	
LOCATION DESCRIPTION		CoGC R/RESERVE	CoGC R/RESERVE	CoGC R/RESERVE		CoGC R/RESERVE	
PIPE SIZE (mm), MATERIAL & CLASS		150, uPVC SN10	150, uPVC SN10	150, uPVC SN10		150, uPVC SN10	
PIPE GRADE (1 IN X)		80.05	100	180		180	
PIPE LENGTH		45.494	47.531	24.116		24.219	
PIPE EMBEDMENT TYPE		4	4	4		4	
FINISHED (& EXISTING) SURFACE LEVEL		18.755	(22.225)	19.87	(21.344)	19.562	(20.412)	12.611	(12.308)	13.042	(13.277)	13.042	(13.277)	13.764	(15.231)
DEPTH TO PIPE INVERT BELOW FSL		2.338	2.338	2.313	2.86	2.86	2.834	2.051	2.051	3.647	3.647	3.568	3.757	3.757	3.757	3.136	3.615	3.615
PIPE INVERT LEVEL		16.417	16.442	17.01	17.035	17.511	8.963	9.043	9.284	9.284	9.906	10.148
PIPE CHAINAGE		352.84	398.334	445.865	0	24.116	0	24.219
LINE		2			3			4										

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 4 OF 11

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 4 OF 11

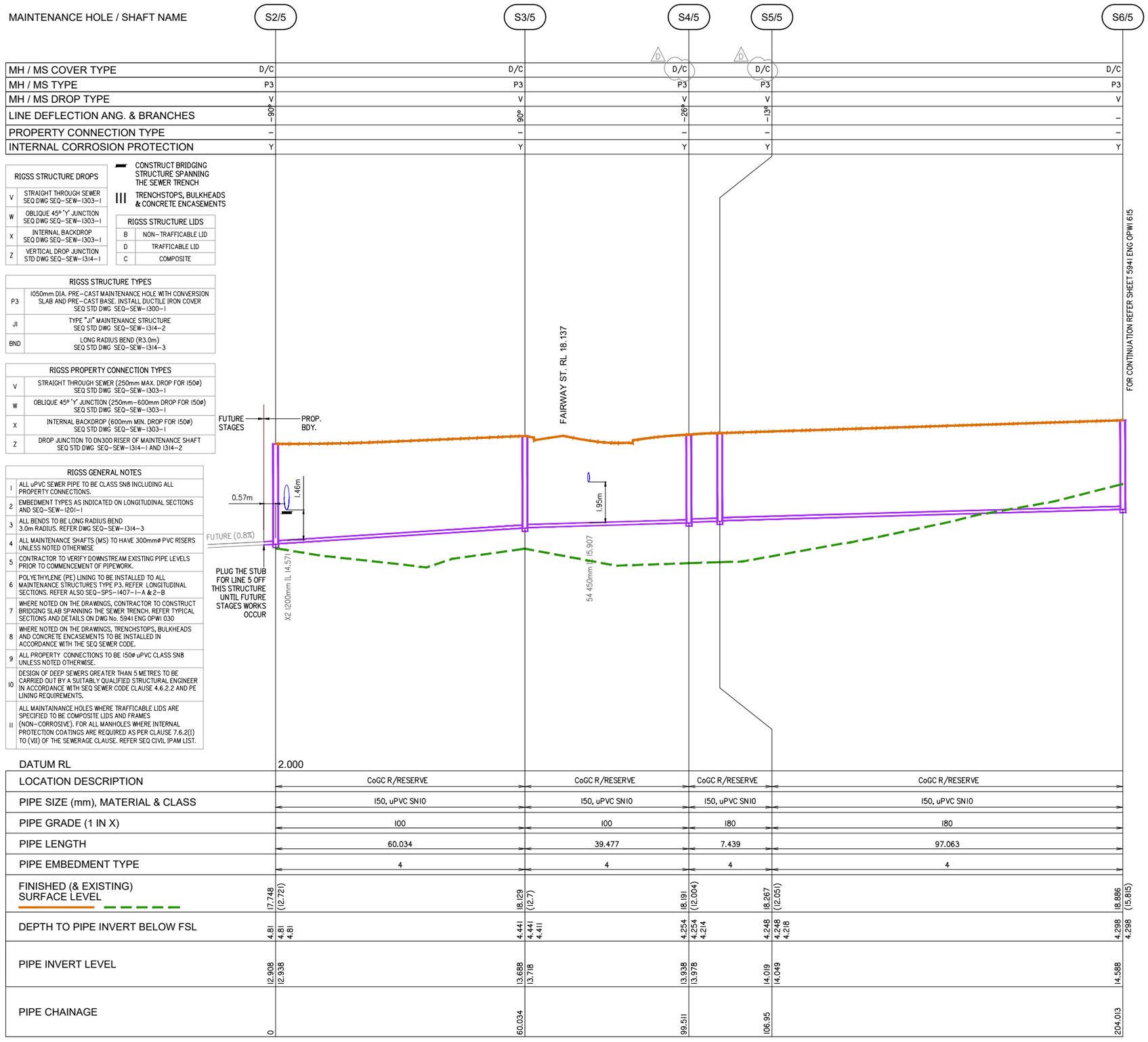
Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:100 - Lengths are in Metres. 0 1 2 3 4 5 6 7 8

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020
Drawing No:	5941 ENG OPW1 613
Rev. No:	C



SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 5 OF 11

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 5 OF 11

Issue	Date	Description	DRN	CHK
D	11-09-2020	AMENDED SEWER STRUCTURES	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:100 - Lengths are in Metres. 0 1 2 3 4 5 6 7 8

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	11-09-2020

Drawing No: 5941 ENG OPW1 614

Rev. No: D

MAINTENANCE HOLE / SHAFT NAME	S6/5	S7/5
MH / MS COVER TYPE	D/C	D/C
MH / MS TYPE	P3	P3
MH / MS DROP TYPE	V	V
LINE DEFLECTION ANG. & BRANCHES	–	V FUT. -90°
PROPERTY CONNECTION TYPE	–	–
INTERNAL CORROSION PROTECTION	Y	Y

RIGSS STRUCTURE DROPS	
V	STRAIGHT THROUGH SEWER SEQ DWG SEQ-SEW-1303-1
W	OBLIQUE 45° 'Y' JUNCTION SEQ DWG SEQ-SEW-1303-1
X	INTERNAL BACKDROP SEQ DWG SEQ-SEW-1303-1
Z	VERTICAL DROP JUNCTION STD DWG SEQ-SEW-1314-1

▬ CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH

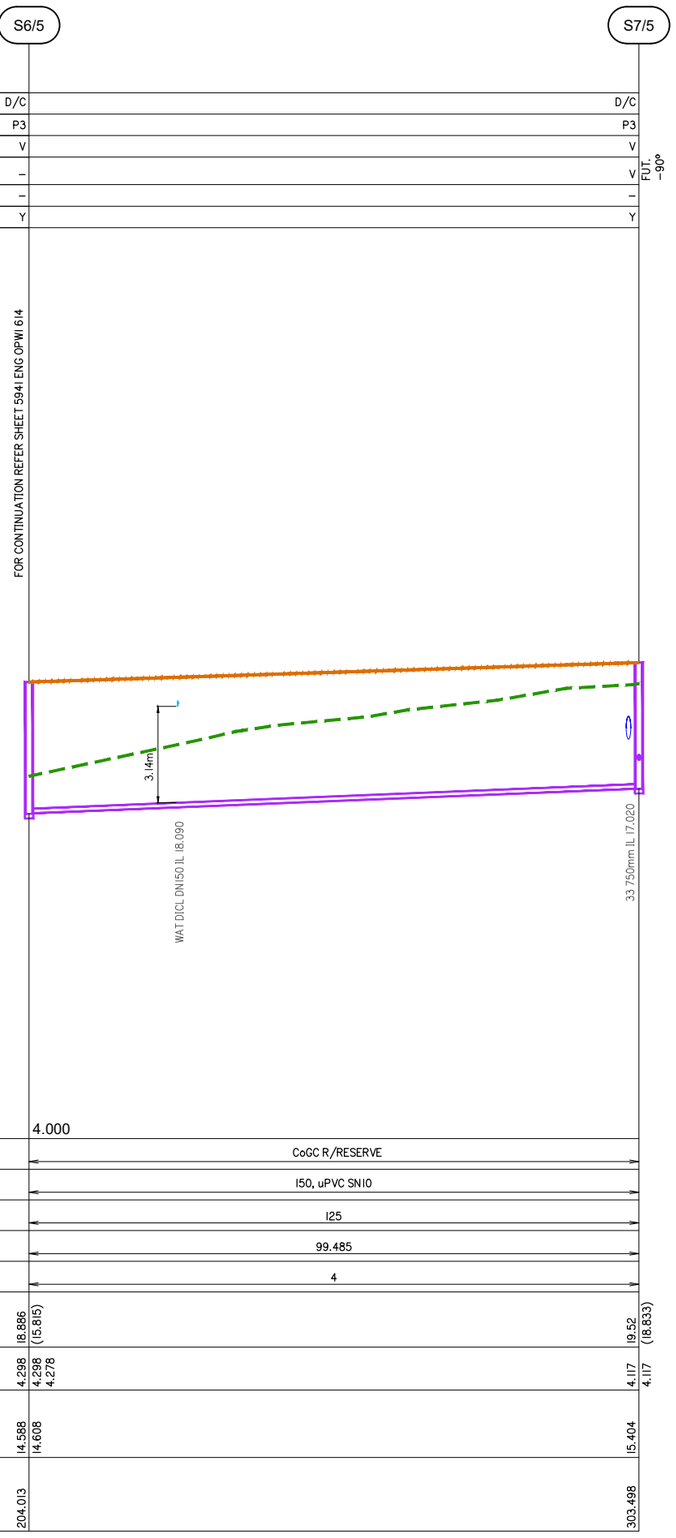
||| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS

RIGSS STRUCTURE LIDS	
B	NON-TRAFFICABLE LID
D	TRAFFICABLE LID
C	COMPOSITE

RIGSS STRUCTURE TYPES	
P3	1050mm DIA. PRE-CAST MAINTENANCE HOLE WITH CONVERSION SLAB AND PRE-CAST BASE. INSTALL DUCTILE IRON COVER SEQ STD DWG SEQ-SEW-1300-1
JI	TYPE "JI" MAINTENANCE STRUCTURE SEQ STD DWG SEQ-SEW-1314-2
BND	LONG RADIUS BEND (R3.0m) SEQ STD DWG SEQ-SEW-1314-3

RIGSS PROPERTY CONNECTION TYPES	
V	STRAIGHT THROUGH SEWER (250mm MAX. DROP FOR 150ø) SEQ STD DWG SEQ-SEW-1303-1
W	OBLIQUE 45° 'Y' JUNCTION (250mm-600mm DROP FOR 150ø) SEQ STD DWG SEQ-SEW-1303-1
X	INTERNAL BACKDROP (600mm MIN. DROP FOR 150ø) SEQ STD DWG SEQ-SEW-1303-1
Z	DROP JUNCTION TO DN300 RISER OF MAINTENANCE SHAFT SEQ STD DWG SEQ-SEW-1314-1 AND 1314-2

RIGSS GENERAL NOTES	
1	ALL uPVC SEWER PIPE TO BE CLASS SN8 INCLUDING ALL PROPERTY CONNECTIONS.
2	EMBEDMENT TYPES AS INDICATED ON LONGITUDINAL SECTIONS AND SEQ-SEW-1201-1
3	ALL BENDS TO BE LONG RADIUS BEND 3.0m RADIUS. REFER DWG SEQ-SEW-1314-3
4	ALL MAINTENANCE SHAFTS (MS) TO HAVE 300mmø PVC RISERS UNLESS NOTED OTHERWISE
5	CONTRACTOR TO VERIFY DOWNSTREAM EXISTING PIPE LEVELS PRIOR TO COMMENCEMENT OF PIPEWORK.
6	POLYETHYLENE (PE) LINING TO BE INSTALLED TO ALL MAINTENANCE STRUCTURES TYPE P3. REFER LONGITUDINAL SECTIONS. REFER ALSO SEQ-SPS-1407-1-A & 2-B
7	WHERE NOTED ON THE DRAWINGS, CONTRACTOR TO CONSTRUCT BRIDGING SLAB SPANNING THE SEWER TRENCH. REFER TYPICAL SECTIONS AND DETAILS ON DWG No. 5941 ENG OPW1 030
8	WHERE NOTED ON THE DRAWINGS, TRENCHSTOPS, BULKHEADS AND CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH THE SEQ SEWER CODE.
9	ALL PROPERTY CONNECTIONS TO BE 150ø uPVC CLASS SN8 UNLESS NOTED OTHERWISE.
10	DESIGN OF DEEP SEWERS GREATER THAN 5 METRES TO BE CARRIED OUT BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER IN ACCORDANCE WITH SEQ SEWER CODE CLAUSE 4.6.2.2 AND PE LINING REQUIREMENTS.
11	ALL MAINTAINANCE HOLES WHERE TRAFFICABLE LIDS ARE SPECIFIED TO BE COMPOSITE LIDS AND FRAMES (NON-CORROSIVE). FOR ALL MANHOLES WHERE INTERNAL PROTECTION COATINGS ARE REQUIRED AS PER CLAUSE 7.6.2(I) TO (VII) OF THE SEWERAGE CLAUSE. REFER SEQ CIVIL IPAM LIST.



DATUM RL	4.000		
LOCATION DESCRIPTION	CoGC R/RESERVE		
PIPE SIZE (mm), MATERIAL & CLASS	150, uPVC SN10		
PIPE GRADE (1 IN X)	125		
PIPE LENGTH	99.485		
PIPE EMBEDMENT TYPE	4		
FINISHED (& EXISTING) SURFACE LEVEL	18.886 (15.815)		19.52 (18.833)
DEPTH TO PIPE INVERT BELOW FSL	4.298 / 4.298 / 4.278		4.117 / 4.117
PIPE INVERT LEVEL	14.588 / 14.608		15.404
PIPE CHAINAGE	204.013		303.498

LINE 5

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 6 OF 11

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

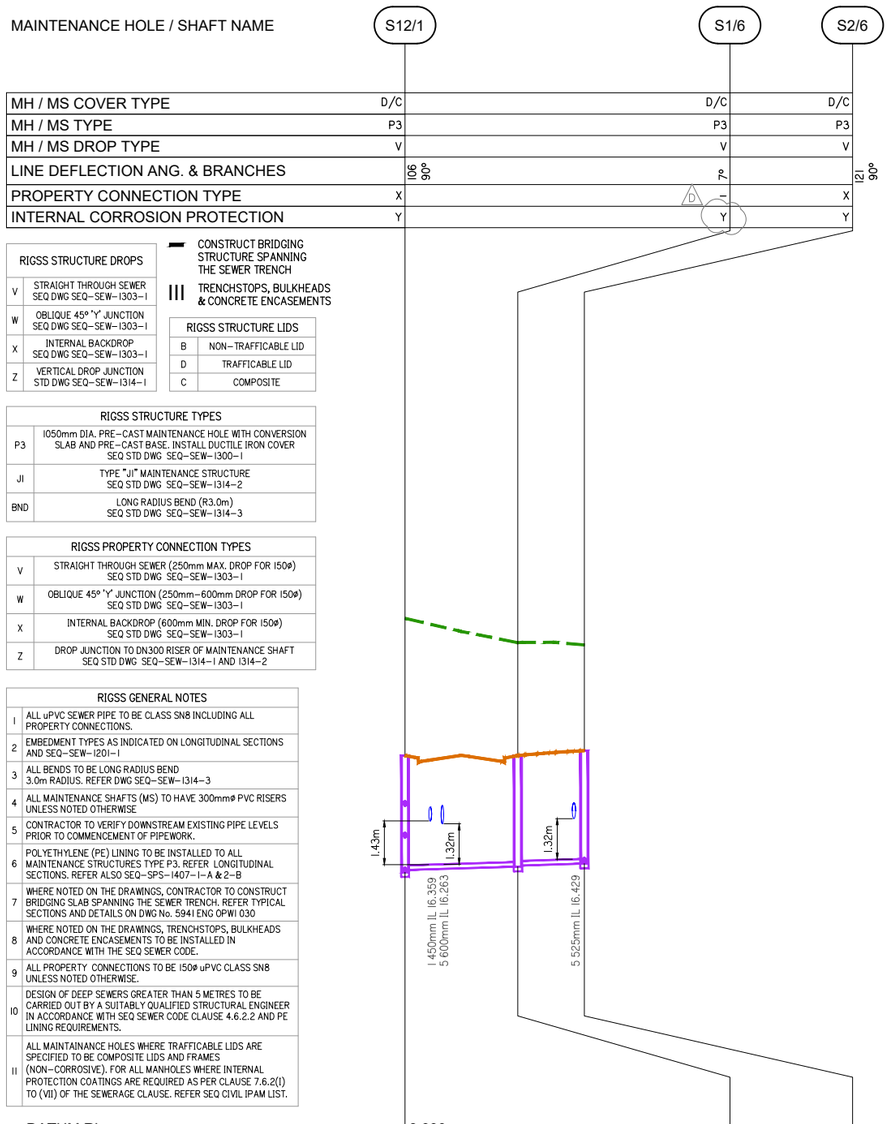
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE
SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 6 OF 11

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40
VERT: Scale 1:100 - Lengths are in Metres. 0 1 2 3 4 5 6 7 8

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020
Drawing No:	5941 ENG OPW1 615
Rev. No:	C



LINE 6

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 7 OF 11

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 7 OF 11

Issue	Date	Description	DRN	CHK
D	11-09-2020	AMENDED SEWER STRUCTURES	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

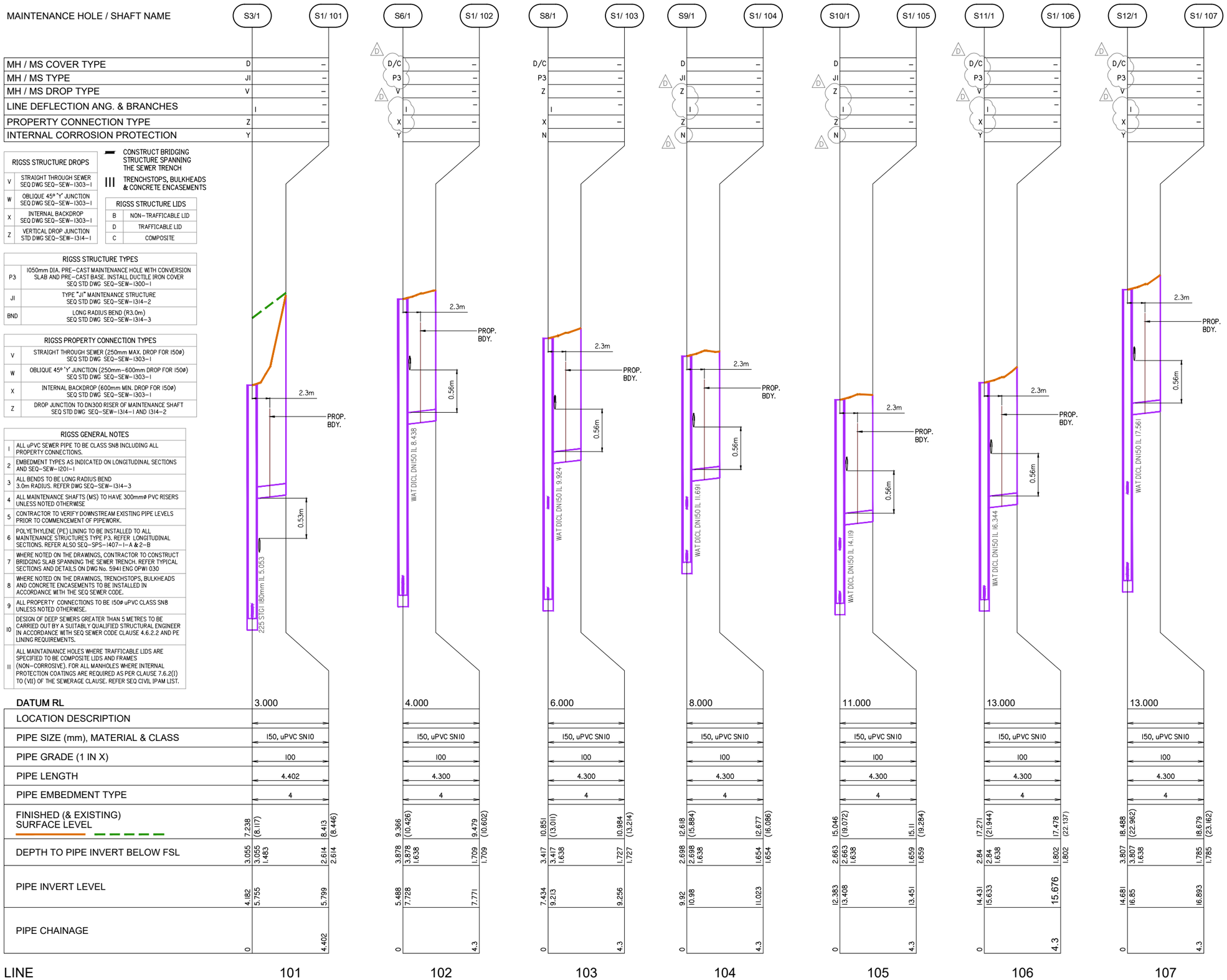
HORZ: Scale 1:500 - Lengths are in Metres. 0 5 10 15 20 25 30 35 40

VERT: Scale 1:100 - Lengths are in Metres. 0 1 2 3 4 5 6 7 8

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	11-09-2020

Drawing No: 5941 ENG OPW1 616

Rev. No: D



SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 8 OF 11

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 8 OF 11

Issue	Date	Description	DRN	CHK
D	11-09-2020	AMENDED SEWER STRUCTURES	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

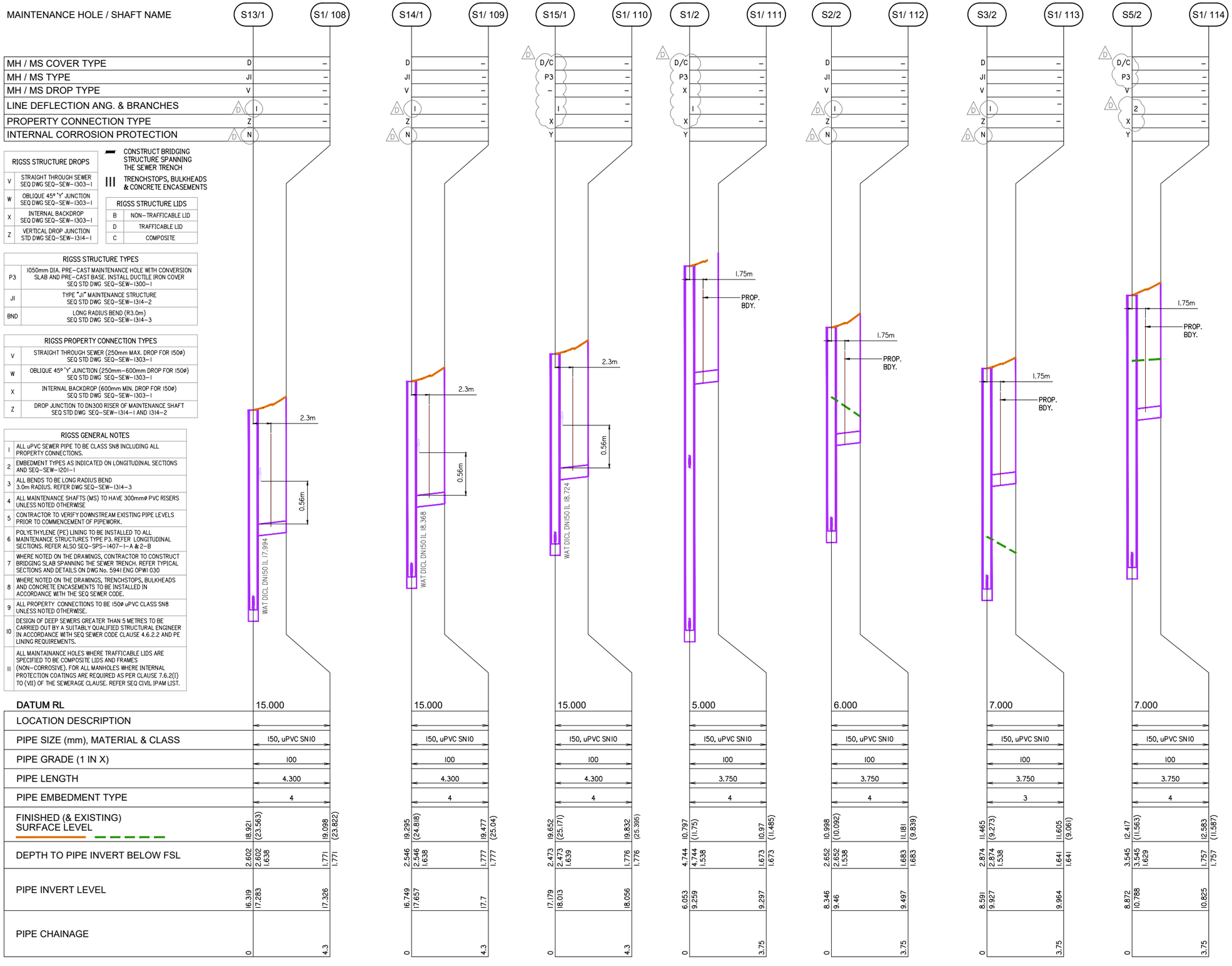
HORZ: Scale 1:250 - Lengths are in Metres. 0 2 4 6 8 10 12 14 16 18 20

VERT: Scale 1:25 - Lengths are in Metres. 0 0.25 0.5 0.75 0.1 1.25 1.5 1.75 2.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	11-09-2020

Drawing No: 5941 ENG OPW1 617

Rev. No: D



RIGSS STRUCTURE DROPS	
V	STRAIGHT THROUGH SEWER SEQ DWG SEQ-SEW-1303-1
W	OBLIQUE 45° 'Y' JUNCTION SEQ DWG SEQ-SEW-1303-1
X	INTERNAL BACKDROP SEQ DWG SEQ-SEW-1303-1
Z	VERTICAL DROP JUNCTION STD DWG SEQ-SEW-1314-1

▬ CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH

||| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS

RIGSS STRUCTURE LIDS	
B	NON-TRAFFICABLE LID
D	TRAFFICABLE LID
C	COMPOSITE

RIGSS STRUCTURE TYPES	
P3	1050mm DIA. PRE-CAST MAINTENANCE HOLE WITH CONVERSION SLAB AND PRE-CAST BASE. INSTALL DUCTILE IRON COVER SEQ STD DWG SEQ-SEW-1300-1
JI	TYPE "JI" MAINTENANCE STRUCTURE SEQ STD DWG SEQ-SEW-1314-2
BND	LONG RADIUS BEND (R3.0m) SEQ STD DWG SEQ-SEW-1314-3

RIGSS PROPERTY CONNECTION TYPES	
V	STRAIGHT THROUGH SEWER (250mm MAX. DROP FOR 150ø) SEQ STD DWG SEQ-SEW-1303-1
W	OBLIQUE 45° 'Y' JUNCTION (250mm-600mm DROP FOR 150ø) SEQ STD DWG SEQ-SEW-1303-1
X	INTERNAL BACKDROP (600mm MIN. DROP FOR 150ø) SEQ STD DWG SEQ-SEW-1303-1
Z	DROP JUNCTION TO DN300 RISER OF MAINTENANCE SHAFT SEQ STD DWG SEQ-SEW-1314-1 AND 1314-2

RIGSS GENERAL NOTES	
1	ALL uPVC SEWER PIPE TO BE CLASS SN8 INCLUDING ALL PROPERTY CONNECTIONS.
2	EMBEDMENT TYPES AS INDICATED ON LONGITUDINAL SECTIONS AND SEQ-SEW-1201-1
3	ALL BENDS TO BE LONG RADIUS BEND 3.0m RADIUS. REFER DWG SEQ-SEW-1314-3
4	ALL MAINTENANCE SHAFTS (MS) TO HAVE 300mmø PVC RISERS UNLESS NOTED OTHERWISE
5	CONTRACTOR TO VERIFY DOWNSTREAM EXISTING PIPE LEVELS PRIOR TO COMMENCEMENT OF PIPEWORK.
6	POLYETHYLENE (PE) LINING TO BE INSTALLED TO ALL MAINTENANCE STRUCTURES TYPE P3. REFER LONGITUDINAL SECTIONS. REFER ALSO SEQ-SPS-1407-1-A & 2-B
7	WHERE NOTED ON THE DRAWINGS, CONTRACTOR TO CONSTRUCT BRIDGING SLAB SPANNING THE SEWER TRENCH. REFER TYPICAL SECTIONS AND DETAILS ON DWG No. 5941 ENG OPW1 030
8	WHERE NOTED ON THE DRAWINGS, TRENCHSTOPS, BULKHEADS AND CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH THE SEQ SEWER CODE.
9	ALL PROPERTY CONNECTIONS TO BE 150ø uPVC CLASS SN8 UNLESS NOTED OTHERWISE.
10	DESIGN OF DEEP SEWERS GREATER THAN 5 METRES TO BE CARRIED OUT BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER IN ACCORDANCE WITH SEQ SEWER CODE CLAUSE 4.6.2.2 AND PE LINING REQUIREMENTS.
11	ALL MAINTAINANCE HOLES WHERE TRAFFICABLE LIDS ARE SPECIFIED TO BE COMPOSITE LIDS AND FRAMES (NON-CORROSIVE). FOR ALL MANHOLES WHERE INTERNAL PROTECTION COATINGS ARE REQUIRED AS PER CLAUSE 7.6.2(I) TO (VII) OF THE SEWERAGE CLAUSE. REFER SEQ CIVIL IPAM LIST.

	S13/1	S1/ 108	S14/1	S1/ 109	S15/1	S1/ 110	S1/2	S1/ 111	S2/2	S1/ 112	S3/2	S1/ 113	S5/2	S1/ 114
MH / MS COVER TYPE	D	–	D	–	D/C	–	D/C	–	D	–	D	–	D/C	–
MH / MS TYPE	JI	–	JI	–	P3	–	P3	–	JI	–	JI	–	P3	–
MH / MS DROP TYPE	V	–	V	–	–	–	X	–	V	–	V	–	V	–
LINE DEFLECTION ANG. & BRANCHES	D I	–	D I	–	I	–	I	–	D I	–	D I	–	D 2	–
PROPERTY CONNECTION TYPE	Z	–	Z	–	X	–	X	–	Z	–	Z	–	X	–
INTERNAL CORROSION PROTECTION	D N	–	D N	–	Y	–	Y	–	D N	–	D N	–	Y	–
DATUM RL	15.000		15.000		15.000		5.000		6.000		7.000		7.000	
LOCATION DESCRIPTION														
PIPE SIZE (mm), MATERIAL & CLASS	150, uPVC SN10		150, uPVC SN10		150, uPVC SN10		150, uPVC SN10		150, uPVC SN10		150, uPVC SN10		150, uPVC SN10	
PIPE GRADE (1 IN X)	100		100		100		100		100		100		100	
PIPE LENGTH	4.300		4.300		4.300		3.750		3.750		3.750		3.750	
PIPE EMBEDMENT TYPE	4		4		4		4		4		3		4	
FINISHED (& EXISTING) SURFACE LEVEL	18.921	(23.563) 19.098 (23.822)	19.295	(24.818) 19.477 (25.04)	19.652	(25.171) 19.832 (25.395)	10.797	(11.75) 10.97 (11.485)	10.988	(10.092) 11.181 (9.839)	11.465	(9.273) 11.605 (9.061)	12.417	(11.563) 12.583 (11.387)
DEPTH TO PIPE INVERT BELOW FSL	2.602	2.602 1.638 1.771 1.771	2.546	2.546 1.638 1.777 1.777	2.473	2.473 1.639 1.776 1.776	4.744	4.744 1.538 1.673 1.673	2.652	2.652 1.538 1.683 1.683	2.874	2.874 1.538 1.641 1.641	3.545	3.545 1.629 1.757 1.757
PIPE INVERT LEVEL	16.319	17.283 17.326	16.749	17.657 17.7	17.179	18.013 18.056	6.053	9.259 9.297	8.346	9.46 9.497	8.591	9.927 9.964	8.872	10.788 10.825
PIPE CHAINAGE	0	4.3	0	4.3	0	4.3	0	3.75	0	3.75	0	3.75	0	3.75

gassman development perspectives
esst 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 9 OF 11

Issue	Date	Description	DRN	CHK
D	11-09-2020	AMENDED SEWER STRUCTURES	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

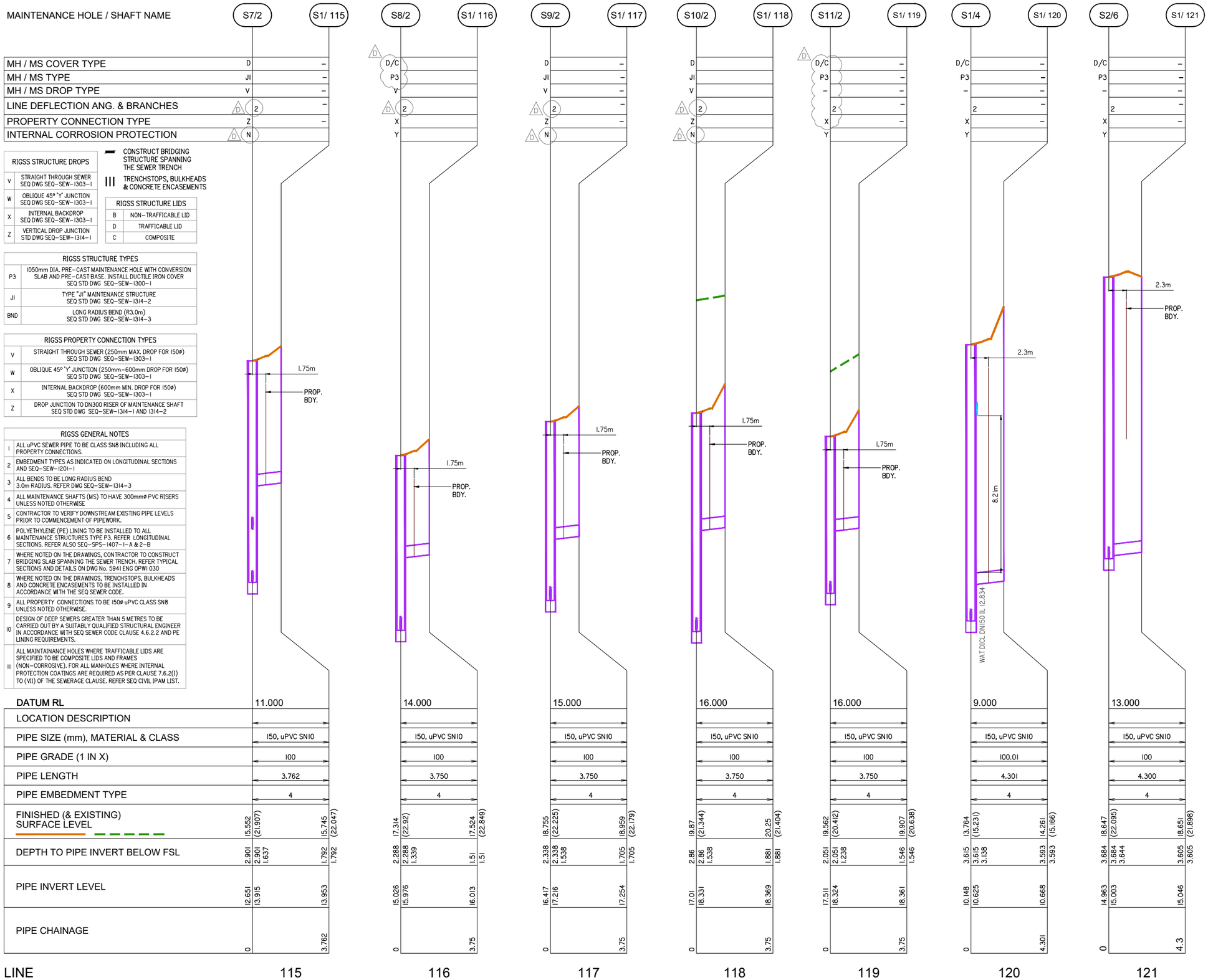
HORZ: Scale 1:250 - Lengths are in Metres. 0 2 4 6 8 10 12 14 16 18 20

VERT: Scale 1:25 - Lengths are in Metres. 0 0.25 0.5 0.75 0.1 1.25 1.5 1.75 2.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	11-09-2020
Drawing No:	5941 ENG OPW1 618
Rev. No:	D

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 9 OF 11

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg



RIGSS STRUCTURE DROPS	
V	STRAIGHT THROUGH SEWER SEQ DWG SEQ-SEW-1303-1
W	OBLIQUE 45° 'Y' JUNCTION SEQ DWG SEQ-SEW-1303-1
X	INTERNAL BACKDROP SEQ DWG SEQ-SEW-1303-1
Z	VERTICAL DROP JUNCTION STD DWG SEQ-SEW-1314-1

▬ CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH

||| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS

RIGSS STRUCTURE LIDS	
B	NON-TRAFFICABLE LID
D	TRAFFICABLE LID
C	COMPOSITE

RIGSS STRUCTURE TYPES	
P3	1050mm DIA. PRE-CAST MAINTENANCE HOLE WITH CONVERSION SLAB AND PRE-CAST BASE. INSTALL DUCTILE IRON COVER SEQ STD DWG SEQ-SEW-1300-1
JI	TYPE "JI" MAINTENANCE STRUCTURE SEQ STD DWG SEQ-SEW-1314-2
BND	LONG RADIUS BEND (R3.0m) SEQ STD DWG SEQ-SEW-1314-3

RIGSS PROPERTY CONNECTION TYPES	
V	STRAIGHT THROUGH SEWER (250mm MAX. DROP FOR 150ø) SEQ STD DWG SEQ-SEW-1303-1
W	OBLIQUE 45° 'Y' JUNCTION (250mm-600mm DROP FOR 150ø) SEQ STD DWG SEQ-SEW-1303-1
X	INTERNAL BACKDROP (600mm MIN. DROP FOR 150ø) SEQ STD DWG SEQ-SEW-1303-1
Z	DROP JUNCTION TO DN300 RISER OF MAINTENANCE SHAFT SEQ STD DWG SEQ-SEW-1314-1 AND 1314-2

RIGSS GENERAL NOTES	
1	ALL uPVC SEWER PIPE TO BE CLASS SN8 INCLUDING ALL PROPERTY CONNECTIONS.
2	EMBEDMENT TYPES AS INDICATED ON LONGITUDINAL SECTIONS AND SEQ-SEW-1201-1
3	ALL BENDS TO BE LONG RADIUS BEND 3.0m RADIUS. REFER DWG SEQ-SEW-1314-3
4	ALL MAINTENANCE SHAFTS (MS) TO HAVE 300mmø PVC RISERS UNLESS NOTED OTHERWISE
5	CONTRACTOR TO VERIFY DOWNSTREAM EXISTING PIPE LEVELS PRIOR TO COMMENCEMENT OF PIPEWORK.
6	POLYETHYLENE (PE) LINING TO BE INSTALLED TO ALL MAINTENANCE STRUCTURES TYPE P3. REFER LONGITUDINAL SECTIONS. REFER ALSO SEQ-SPS-1407-1-A & 2-B
7	WHERE NOTED ON THE DRAWINGS, CONTRACTOR TO CONSTRUCT BRIDGING SLAB SPANNING THE SEWER TRENCH. REFER TYPICAL SECTIONS AND DETAILS ON DWG No. 5941 ENG OPW1 030
8	WHERE NOTED ON THE DRAWINGS, TRENCHSTOPS, BULKHEADS AND CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH THE SEQ SEWER CODE.
9	ALL PROPERTY CONNECTIONS TO BE 150ø uPVC CLASS SN8 UNLESS NOTED OTHERWISE.
10	DESIGN OF DEEP SEWERS GREATER THAN 5 METRES TO BE CARRIED OUT BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER IN ACCORDANCE WITH SEQ SEWER CODE CLAUSE 4.6.2.2 AND PE LINING REQUIREMENTS.
11	ALL MAINTAINANCE HOLES WHERE TRAFFICABLE LIDS ARE SPECIFIED TO BE COMPOSITE LIDS AND FRAMES (NON-CORROSIVE). FOR ALL MANHOLES WHERE INTERNAL PROTECTION COATINGS ARE REQUIRED AS PER CLAUSE 7.6.2(I) TO (VII) OF THE SEWERAGE CLAUSE. REFER SEQ CIVIL IPAM LIST.

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 10 OF 11

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 10 OF 11

Issue	Date	Description	DRN	CHK
D	11-09-2020	AMENDED SEWER STRUCTURES	BA	MG
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

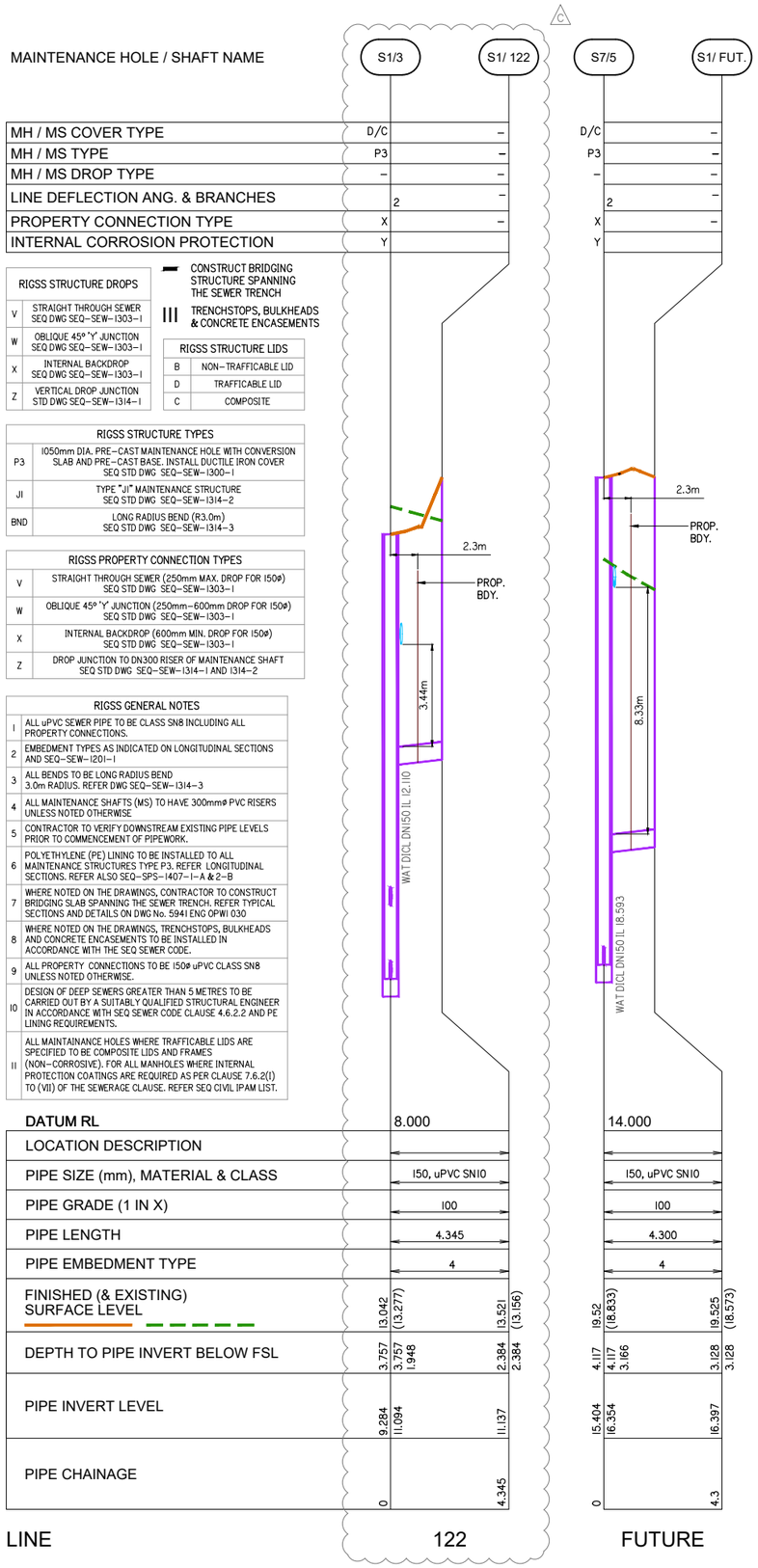
HORZ: Scale 1:250 - Lengths are in Metres. 0 2 4 6 8 10 12 14 16 18 20

VERT: Scale 1:25 - Lengths are in Metres. 0 0.25 0.5 0.75 0.1 1.25 1.5 1.75 2.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	11-09-2020

Drawing No: 5941 ENG OPW1 619 Rev. No: D

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg



SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 11 OF 11

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 610.dwg

gassman development perspectives
esti 1985
planning | environment | landscape | engineering | survey
T. 3807 3333 | F. 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

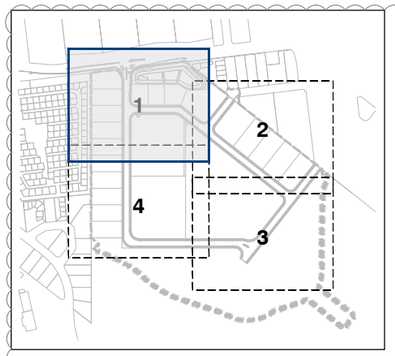
DRAWING TITLE
SEWER RETICULATION LONGITUDINAL SECTIONS SHEET 11 OF 11

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
HORZ: Scale 1:250 - Lengths are in Metres. 0 2 4 6 8 10 12 14 16 18 20
VERT: Scale 1:25 - Lengths are in Metres. 0 0.25 0.5 0.75 0.1 1.25 1.5 1.75 2.0

Scale at A1:	AS SHOWN
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 620
Rev. No: C



KEY PLAN
SCALE 1: 7500

STAPYLTON JACOBS WELL ROAD

EXTERNAL 225mm DIA WATER MAIN REALIGNED TO SUIT EXTERNAL INTERSECTION DESIGN AS PART OF SEPARATE OPERATIONAL WORKS PACKAGE

CONTRACTOR TO UNDERTAKE LIVE CONNECTION UNDER GCWW SUPERVISION AS PER LIVE WORKS SCHEDULE

REFER WATER LONGITUDINAL SECTION OPPOSITE

101

102

103

104

105

122

RL14.6

900

111

112

113

114

LOT 2 SP216787

LOT SERVICE CONFIGURATION AS PER SEQ-NDW-2300-1 DETAIL 'B' WITH TEE AT 1.5m OFFSET FROM BOUNDARY

ø150 DICL CLASS PN35

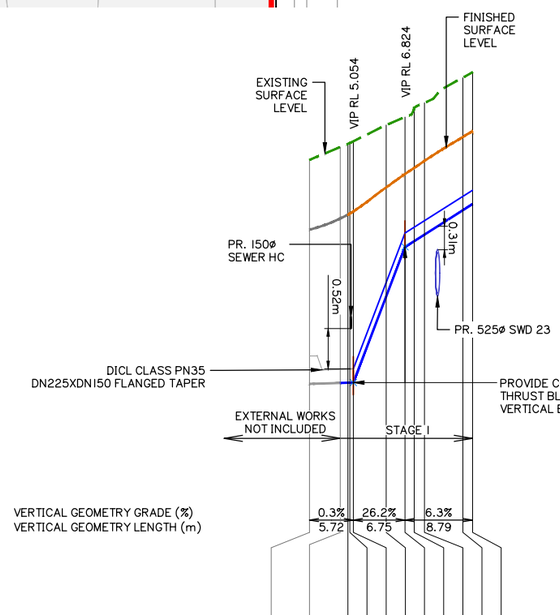
0.657m
0.659m
0.655m
0.137m
0.136m
0.136m
1.40m
0.136m
1.50m
0.137m
0.137m

EASTRIDGE STREET

HOMESTEAD DRIVE

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 701

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 703



DATUM RL = 0.700

PIPE INVERT LEVEL	5.037	5.049	5.052	5.053	5.054	6.178	6.824	6.900	6.985	7.301	7.381											
EXISTING SURFACE LEVEL	7.959	8.117	8.168	8.179	8.201	8.414	8.517	8.639	8.704	9.031	9.101											
FINISHED SURFACE LEVEL	7.048	7.193	7.243	7.258	7.286	7.599	7.774	7.854	7.946	8.256	8.333											
COVER TO PIPE	1.752	1.964	2.011	2.025	2.052	1.242	0.77	0.774	0.781	0.775	0.772											
DEPTH TO PIPE INVERT	-2.011	-2.144	-2.191	-2.205	-2.232	-1.422	-0.950	-0.954	-0.961	-0.955	-0.952											
PIPE CHAINAGE	0	4	5	5.262	5.716	10	12.464	13.662	15	20	21.281											

LONGITUDINAL SECTION – DESIGN WATER

A1 HORZ SCALE: 1: 400
A1 VERT SCALE: 1: 40

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

LIVE WORKS SCHEDULE – WATER

No	DESCRIPTION	DIA MAIN	FSL	ESL	IL	DEPTH TO INVERT (FSL)	DEPTH TO INVERT (ESL)
I(A)	CONTRACTOR TO ENSURE SLUICE VALVE OFF 150mm DIA EXTERNAL WATER MAIN IS CLOSED						
I(B)	CONTRACTOR TO CONSTRUCT NEW 150mm DIA LINE OFF EXISTING 150mm ISOLATED LINE	150mm DICL	7.193m	8.117m	5.049m	2.144m	3.068m
I(C)	SLUICE VALVE SHALL REMAIN CLOSED UNTIL AFTER SUCCESSFUL "ON MAINTENANCE INSPECTION" NOTE: ALL WORKS TO BE CARRIED OUT UNDER GCWW SUPERVISION AND AT DEVELOPER'S EXPENSE						

WATER FITTING SCHEDULE

No	DESCRIPTION
1	FIRE HYDRANT
2	BEND 90°
3	BEND 22.5°
4	BEND 11.25°
5	SLUICE VALVE
6	150x150 TEE
7	END CAP
8	150X150 TEE WITH BLANK FLANGES

WATER RETICULATION LAYOUT PLAN SHEET 1 OF 4

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

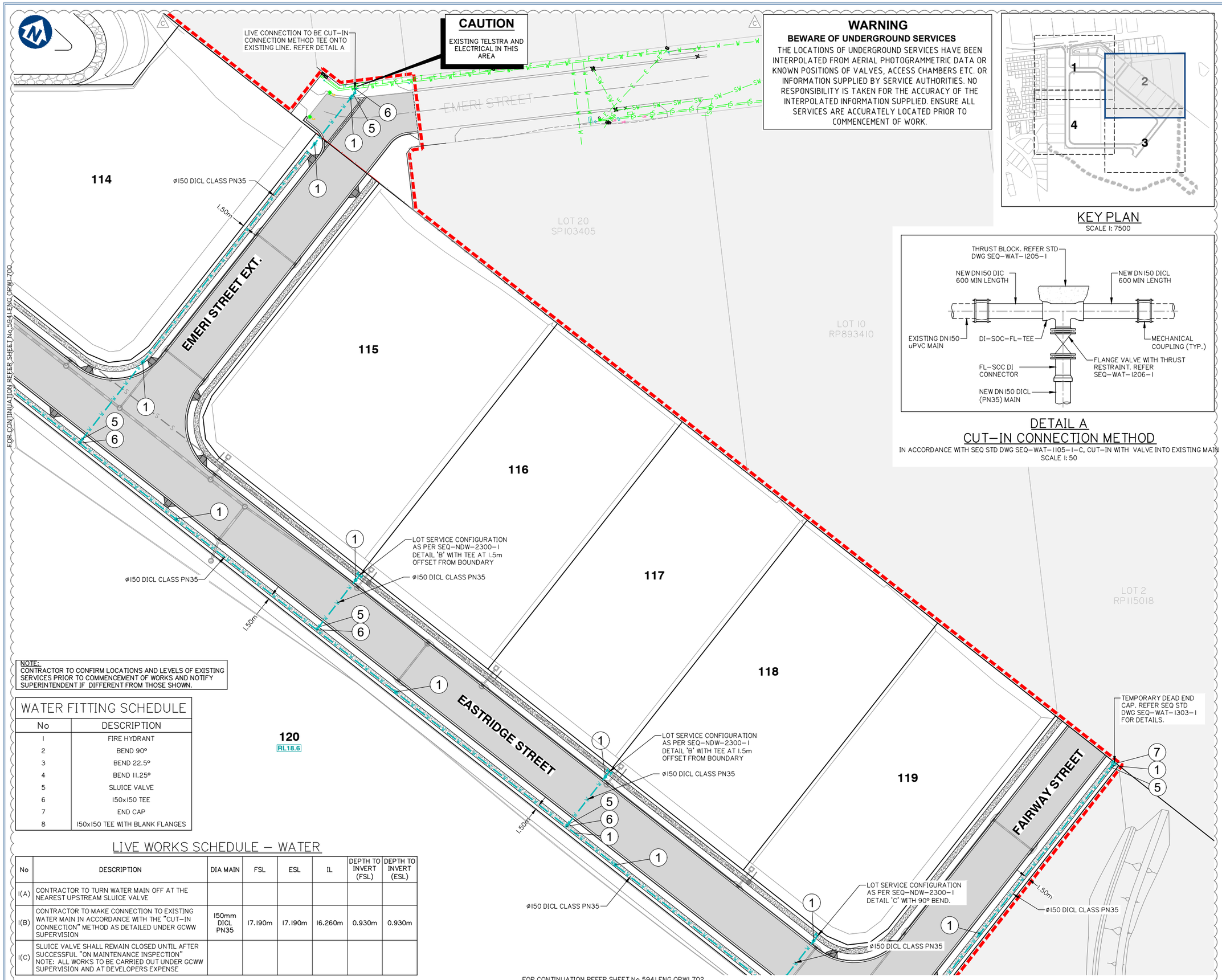
WATER RETICULATION LAYOUT PLAN SHEET 1 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 700
Rev. No: C



WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, ACCESS CHAMBERS ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

KEY PLAN
SCALE 1:7500

DETAIL A
CUT-IN CONNECTION METHOD
IN ACCORDANCE WITH SEQ STD DWG SEQ-WAT-1105-1-C, CUT-IN WITH VALVE INTO EXISTING MAIN
SCALE 1:50

NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

WATER FITTING SCHEDULE

No	DESCRIPTION
1	FIRE HYDRANT
2	BEND 90°
3	BEND 22.5°
4	BEND 11.25°
5	SLUICE VALVE
6	150x150 TEE
7	END CAP
8	150x150 TEE WITH BLANK FLANGES

LIVE WORKS SCHEDULE – WATER

No	DESCRIPTION	DIA MAIN	FSL	ESL	IL	DEPTH TO INVERT (FSL)	DEPTH TO INVERT (ESL)
1(A)	CONTRACTOR TO TURN WATER MAIN OFF AT THE NEAREST UPSTREAM SLUICE VALVE						
1(B)	CONTRACTOR TO MAKE CONNECTION TO EXISTING WATER MAIN IN ACCORDANCE WITH THE "CUT-IN CONNECTION" METHOD AS DETAILED UNDER GCWW SUPERVISION	150mm DICL PN35	17.190m	17.190m	16.260m	0.930m	0.930m
1(C)	SLUICE VALVE SHALL REMAIN CLOSED UNTIL AFTER SUCCESSFUL "ON MAINTENANCE INSPECTION" NOTE: ALL WORKS TO BE CARRIED OUT UNDER GCWW SUPERVISION AND AT DEVELOPERS EXPENSE						

WATER RETICULATION LAYOUT PLAN SHEET 2 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 700.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

WATER RETICULATION LAYOUT PLAN SHEET 2 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

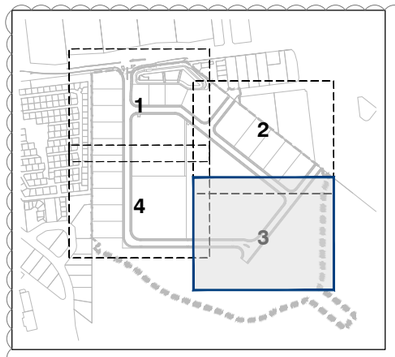
SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 701
Rev. No: C

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 701

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 703



KEY PLAN
SCALE 1: 7500

120
RL18.6

EASTRIDGE STREET

FAIRWAY STREET

HOMESTEAD DRIVE

LOT SERVICE CONFIGURATION AS PER SEQ-NDW-2300-1 DETAIL 'C' WITH 90° BEND.

ø150 DICL CLASS PN35

1.50m

0.136m

0.137m

1.40m

0.660m

0.674m

TEMPORARY DEAD END CAP. REFER SEQ STD DWG SEQ-WAT-1303-1 FOR DETAILS.

FUTURE STAGES

NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

WATER FITTING SCHEDULE

No	DESCRIPTION
1	FIRE HYDRANT
2	BEND 90°
3	BEND 22.5°
4	BEND 11.25°
5	SLUICE VALVE
6	150x150 TEE
7	END CAP
8	150x150 TEE WITH BLANK FLANGES

WATER RETICULATION LAYOUT PLAN SHEET 3 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 700.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

WATER RETICULATION LAYOUT PLAN SHEET 3 OF 4

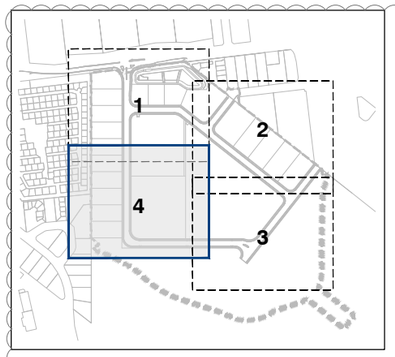
Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 702
Rev. No: C

FOR CONTINUATION REFER SHEET No.594| ENG OPW| 700



KEY PLAN
SCALE 1: 7500

105

106

107

108

109

110

122
RL14.6

121
RL18.6

120
RL18.6

HOMESTEAD DRIVE

CEDAR DR

0.136m

ø150 DICL CLASS PN35

1.40m

0.136m

LOT SERVICE CONFIGURATION
AS PER SEQ-NDW-2300-1
DETAIL 'B' WITH TEE AT 1.5m
OFFSET FROM BOUNDARY

ø150 DICL CLASS PN35

HOMESTEAD DRIVE

0.137m

1.40m

ø150 DICL CLASS PN35

0.137m

FUTURE STAGES

WATER FITTING SCHEDULE	
No	DESCRIPTION
1	FIRE HYDRANT
2	BEND 90°
3	BEND 22.5°
4	BEND 11.25°
5	SLUICE VALVE
6	150x150 TEE
7	END CAP
8	150x150 TEE WITH BLANK FLANGES

NOTE:
CONTRACTOR TO CONFIRM LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT IF DIFFERENT FROM THOSE SHOWN.

WATER RETICULATION LAYOUT PLAN SHEET 4 OF 4

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 700.dwg

FOR CONTINUATION REFER SHEET No.5941 ENG OPW1 702

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

WATER RETICULATION LAYOUT PLAN SHEET 4 OF 4

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 10 20 30 40 50
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 703
Rev. No: C

THRUST BLOCK LENGTH

PIPE DN.	FITTING	MAX. THRUST IN KN	THRUST BLOCK HEIGHT	STIFF CLAY 50 KPa.	VERY STIFF CLAY SANDY LOAM 100KPa.	SAND & GRAVEL HARDCLAY 150KPa.	SAND & GRAVEL CEMENTED WITH CLAY 200KPa.	ROCK 240kPa
100	90° BEND	19.8	400	1000	●	●	●	●
	60° BEND	14.0		700	●	●	●	●
	45° BEND	10.7		●	●	●	●	●
	22.5° BEND	5.5		●	●	●	●	●
	11.25° BEND	2.7		●	●	●	●	●
	TEE OR CLOSED END	14.0		700	●	●	●	●
150	90° BEND	41.7	450	1860	930	●	●	●
	60° BEND	29.5		1320	660	●	●	●
	45° BEND	22.6		1000	●	●	●	●
	22.5° BEND	11.5		●	●	●	●	●
	11.25° BEND	5.8		●	●	●	●	●
	TEE OR CLOSED END	29.5		1300	660	●	●	●
200	90° BEND	71.7	550	*	1300	870	650	●
	60° BEND	50.7		1850	920	●	●	●
	45° BEND	38.8		1410	700	●	●	●
	22.5° BEND	19.8		720	●	●	●	●
	11.25° BEND	9.9		●	●	●	●	●
	TEE OR CLOSED END	50.7		1850	920	●	●	●
225	90° BEND	89.4	600	*	1500	1000	750	●
	60° BEND	63.2		2110	1060	700	●	●
	45° BEND	48.4		1620	810	●	●	●
	22.5° BEND	24.6		830	●	●	●	●
	11.25° BEND	12.4		●	●	●	●	●
	TEE OR CLOSED END	63.2		210	1060	700	●	●
250	90° BEND	109.0	650	*	1700	1120	840	700
	60° BEND	77.1		2400	1200	800	●	●
	45° BEND	59.0		1820	910	●	●	●
	22.5° BEND	30.1		930	●	●	●	●
	11.25° BEND	15.1		●	●	●	●	●
	TEE OR CLOSED END	77.1		2400	1200	800	●	●
300	90° BEND	158.6	700	*	2270	1510	1140	950
	60° BEND	112.2		*	1600	1070	800	670
	45° BEND	85.9		2453	1230	820	●	●
	22.5° BEND	43.8		1250	630	●	●	●
	11.25° BEND	22.0		630	●	●	●	●
	TEE OR CLOSED END	112.2		*	1600	1070	800	750

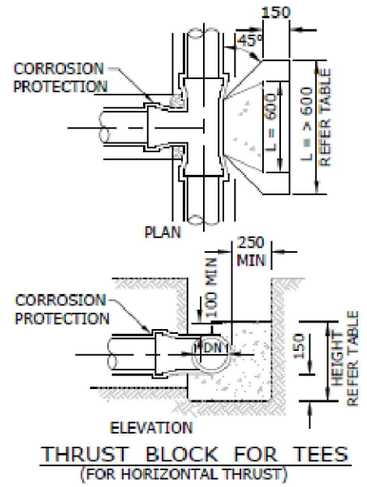
THRUST BLOCK LENGTH

PIPE DN.	FITTING	MAX. THRUST IN KN	THRUST BLOCK HEIGHT	STIFF CLAY 50 KPa.	VERY STIFF CLAY SANDY LOAM 100KPa.	SAND & GRAVEL HARDCLAY 150KPa.	SAND & GRAVEL CEMENTED WITH CLAY 200KPa.	ROCK 240kPa
375	90° BEND	241.9	800	*	*	2220	1510	1260
	60° BEND	171.0		*	2140	1430	1070	890
	45° BEND	130.9		*	1640	1090	820	680
	22.5° BEND	66.7		1670	840	●	●	●
	11.25° BEND	33.5		840	●	●	●	●
	TEE OR CLOSED END	171.0		*	2140	1430	1070	890
450	90° BEND	342.6	900	*	*	2540	1900	1590
	60° BEND	242.3		*	2690	1800	1350	1120
	45° BEND	185.4		*	2060	1375	1030	860
	22.5° BEND	94.5		2100	1050	700	●	●
	11.25° BEND	47.5		1060	●	●	●	●
	TEE OR CLOSED END	242.3		*	2690	1800	1350	1120
500	90° BEND	418	1000	*	*	2790	2090	1740
	60° BEND	295.6		*	*	1970	1480	1230
	45° BEND	226.2		*	2260	1510	1130	940
	22.5° BEND	115.3		2310	1150	770	●	●
	11.25° BEND	58.0		1160	●	●	●	●
	TEE OR CLOSED END	295.5		*	*	1970	1480	1230
600	90° BEND	593	1100	*	*	*	2700	2250
	60° BEND	419		*	*	2540	1910	1590
	45° BEND	320		*	2920	1950	1460	1220
	22.5° BEND	164		2980	1490	990	750	620
	11.25° BEND	82.2		1500	750	●	●	●
	TEE OR CLOSED END	419		*	*	2540	1910	1590
750	90° BEND	909	1300	*	*	*	*	2920
	60° BEND	643		*	*	*	2480	2060
	45° BEND	492		*	*	2530	1890	1580
	22.5° BEND	251		*	1930	1290	970	810
	11.25° BEND	126.1		1940	970	650	●	●
	TEE OR CLOSED END	643		*	*	*	2480	2060
900 (0960 MSCL)	90° BEND	1.228	1500	*	*	*	*	3420
	60° BEND	868		*	*	*	2900	2420
	45° BEND	664		*	*	2960	2220	1850
	22.5° BEND	339		*	2260	1510	1130	940
	11.25° BEND	170		2270	1140	760	●	●
	TEE OR CLOSED END	868		*	*	*	3300	2650

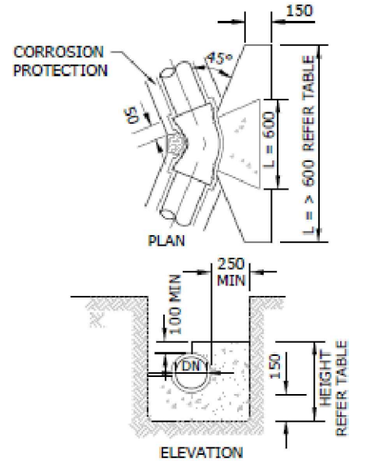
THRUST BLOCK DIMENSIONS - 1200kPa

● INDICATES BLOCK LENGTH OF 600

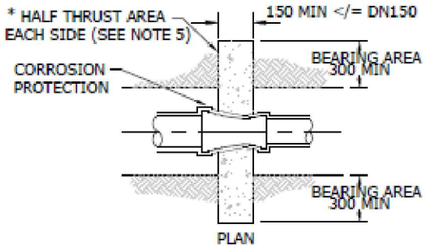
* = SPECIAL DESIGN



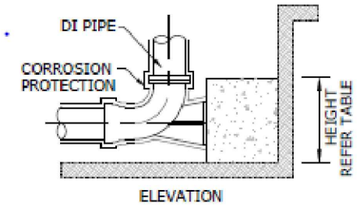
THRUST BLOCK FOR TEES
(FOR HORIZONTAL THRUST)



THRUST BLOCK FOR BENDS
(FOR HORIZONTAL THRUST)



TAPER THRUST BLOCK
(FOR HORIZONTAL THRUST)



FLUSHING/WASHOUT BEND THRUST BLOCK
(FOR HORIZONTAL THRUST) (MINIMUM REQUIRED THRUST AREA AS PER TEE OR CLOSED END)

NOTES

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
2. CAST THE THRUST AREA OF ALL THRUST BLOCKS AGAINST A CLEAN FACE OF UNDISTURBED NATURAL SOIL. SOIL CLASSIFICATIONS USED ON THIS DRAWING ARE EXPLAINED IN SEQ-WAT-1200-1. DO NOT USE STANDARD THRUST BLOCKS AS SPECIFIED IN THIS DRAWING IN SOILS WITH < 50kPa BEARING CAPACITY EG;
   - VERY SOFT, SOFT OR FIRM CLAY.
   - LOOSE CLEAN SAND,
   - UNCOMPACTED FILL OR REFUSE,

   A GEOTECHNICAL ASSESSMENT AND INDIVIDUAL DESIGN IS REQUIRED FOR THESE SOILS.
3. THRUST BLOCKS NOT TO INTERFERE WITH OTHER SERVICES OR BE LOCATED OUTSIDE THE WATER MAIN ALLOCATION WITHOUT WATER AGENCY APPROVAL.
4. ALL CONCRETE GRADE N20. TABLE OF DIMENSIONS BASED ON REQUIRED TEST PRESSURE OF 1200kPa AND ACTUAL DICL PIPE DIAMETERS.
5. THE MINIMUM THRUST AREA FOR TAPER THRUST BLOCKS TO BE EQUAL TO THE DIFFERENCE BETWEEN THE THRUST AREAS FOR TEES OR CLOSED ENDS OF EQUIVALENT DIAMETER TO THOSE EACH SIDE OF TAPER. THE DETAIL SHOWN IS FOR < OR = DN150 MAINS. FOR LARGER MAINS, THE TAPER THRUST BLOCK SHALL BE REINFORCED AND OF A SIZE AS SHOWN IN SEQ-WAT-1206-1.
6. FOR DOWNWARD VERTICAL THRUST, THE ALLOWABLE BEARING PRESSURES FOR VARIOUS SOILS MAY BE TAKEN AS TWICE THAT FOR HORIZONTAL THRUST SHOWN.
7. WHEN POURING CONCRETE AGAINST FITTINGS PLACE A MEMBRANE OF POLYETHYLENE, PVC OR FELT BETWEEN THE FITTING AND CONCRETE TO PREVENT DAMAGE TO THE FITTING. PIPE JOINTS TO BE CLEAR OF CONCRETE,
8. CONCRETE THRUST BLOCK ANCHORS FOR VALVES TO BE AS DETAILED ON SEQ-WAT-1206-1.

IN ACCORDANCE WITH SEQ-WAT-I205-I

WATER RETICULATION TYPICAL DETAILS

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 700.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

WATER RETICULATION TYPICAL DETAILS

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

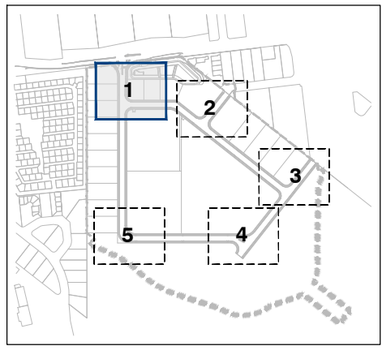
SCALE IN METRES

0 10 20 30 40 50

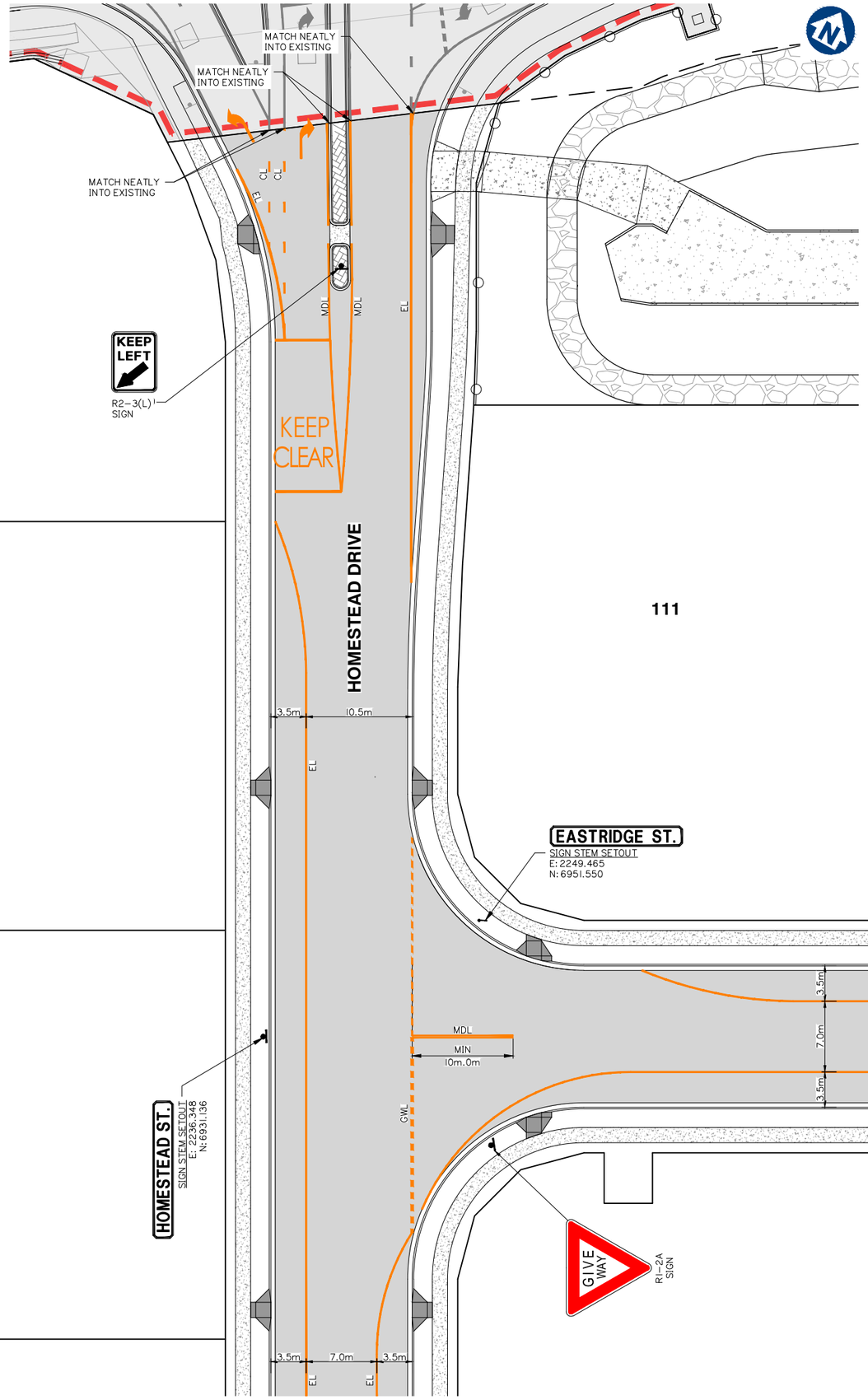
1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1:	1:500
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 704
Rev. No: B



KEY PLAN
SCALE 1: 7500



102

103

111

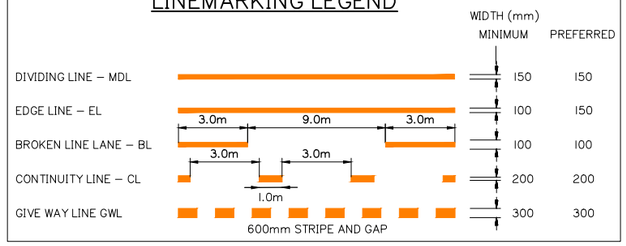
112

122

NOTE:

1. ALL LINE-MARKING, SIGNAGE ABD REFLECTORISED PAVEMENT MARKERS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT DEPARTMENT OF MAIN ROADS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
2. EXTENT OF LINE-MARKING IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
3. EXACT LOCATION OF ALL SIGNS IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
4. ALL SIGN POSTS & SIGN RAILS TO BE GALVANISED UNLESS NOTED OTHERWISE.
5. ALL TRAFFIC SIGNS TO BE SIZE "B" UNLESS NOTED OTHERWISE.
6. FOR GUIDE POST INSTALLATION AND DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No. 1356
7. FOR TRAFFIC SIGN SUPPORT DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No.'s 1360 AND 1362
8. ALL ROUTE NAMES ON NEW GUIDE SIGNS TO BE BLACK LETTERING ON WHITE BACKGROUND U.N.O.
9. ALL SIGN MATERIAL TO BE CLASS 1.
10. ALL LINEMARKING TO BE REFLECTORISED WHITE.

LINEMARKING LEGEND



LINEMARKING AND SIGNAGE PLAN SHEET 1 OF 5

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

LINEMARKING AND SIGNAGE PLAN SHEET 1 OF 5

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 5 10 15 20 25
1:250 (FULL SIZE A1)
1:500 (HALF SIZE A3)

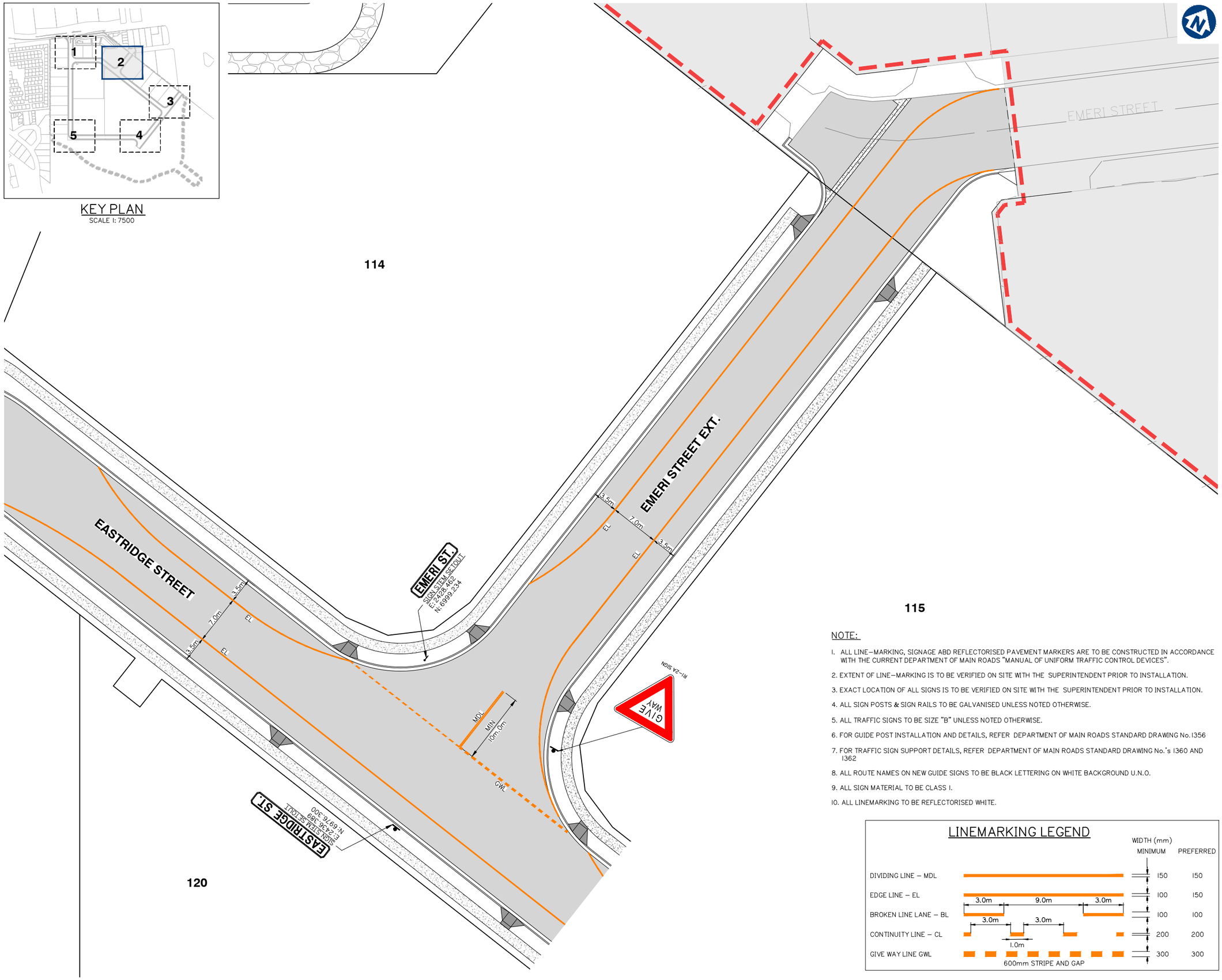
Scale at A1:	1:250
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 800
Rev. No: C

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 800.dwg

KEY PLAN
SCALE 1: 7500

114



120

115

NOTE:

1. ALL LINE–MARKING, SIGNAGE ABD REFLECTORISED PAVEMENT MARKERS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT DEPARTMENT OF MAIN ROADS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
2. EXTENT OF LINE–MARKING IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
3. EXACT LOCATION OF ALL SIGNS IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
4. ALL SIGN POSTS & SIGN RAILS TO BE GALVANISED UNLESS NOTED OTHERWISE.
5. ALL TRAFFIC SIGNS TO BE SIZE "B" UNLESS NOTED OTHERWISE.
6. FOR GUIDE POST INSTALLATION AND DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No. 1356
7. FOR TRAFFIC SIGN SUPPORT DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No.'s 1360 AND 1362
8. ALL ROUTE NAMES ON NEW GUIDE SIGNS TO BE BLACK LETTERING ON WHITE BACKGROUND U.N.O.
9. ALL SIGN MATERIAL TO BE CLASS 1.
10. ALL LINEMARKING TO BE REFLECTORISED WHITE.

LINEMARKING LEGEND

LINEMARKING AND SIGNAGE PLAN SHEET 2 OF 5

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 800.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

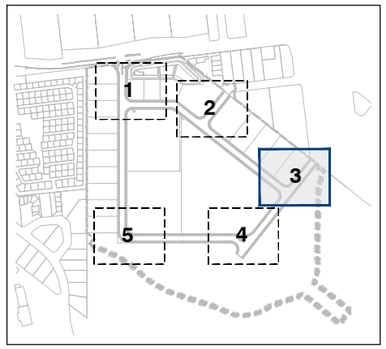
LINEMARKING AND SIGNAGE PLAN SHEET 2 OF 5

Issue	Date	Description	DRN	CHK
B	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 5 10 15 20 25
1:250 (FULL SIZE A1)
1:500 (HALF SIZE A3)

Scale at A1:	1:250
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 801
Rev. No: B



KEY PLAN
SCALE 1: 7500

118

119

LOT 2
RP115018

FAIRWAY STREET

EASTRIDGE STREET

EASTRIDGE ST.

FAIRWAY ST.

D4-5 SIGN

R1-2A SIGN

GIVE WAY

3.5m
7.0m
3.5m
EL
EL
GWL
MDL
MIN 10m, 0m

SIGN STEM SETOUT
E: 2688.226
N: 6931.610

SIGN STEM SETOUT
E: 2711.210
N: 6939.537

FUTURE STAGES

NOTE:

1. ALL LINE-MARKING, SIGNAGE ABD REFLECTORISED PAVEMENT MARKERS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT DEPARTMENT OF MAIN ROADS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
2. EXTENT OF LINE-MARKING IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
3. EXACT LOCATION OF ALL SIGNS IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
4. ALL SIGN POSTS & SIGN RAILS TO BE GALVANISED UNLESS NOTED OTHERWISE.
5. ALL TRAFFIC SIGNS TO BE SIZE "B" UNLESS NOTED OTHERWISE.
6. FOR GUIDE POST INSTALLATION AND DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No. 1356
7. FOR TRAFFIC SIGN SUPPORT DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No.'s 1360 AND 1362
8. ALL ROUTE NAMES ON NEW GUIDE SIGNS TO BE BLACK LETTERING ON WHITE BACKGROUND U.N.O.
9. ALL SIGN MATERIAL TO BE CLASS 1.
10. ALL LINEMARKING TO BE REFLECTORISED WHITE.

LINEMARKING LEGEND

	WIDTH (mm) MINIMUM	PREFERRED
DIVIDING LINE – MDL	150	150
EDGE LINE – EL	100	150
BROKEN LINE LANE – BL (3.0m, 9.0m, 3.0m)	100	100
CONTINUITY LINE – CL (3.0m, 3.0m, 1.0m)	200	200
GIVE WAY LINE GWL (600mm STRIPE AND GAP)	300	300

LINEMARKING AND SIGNAGE PLAN SHEET 3 OF 5

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 800.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

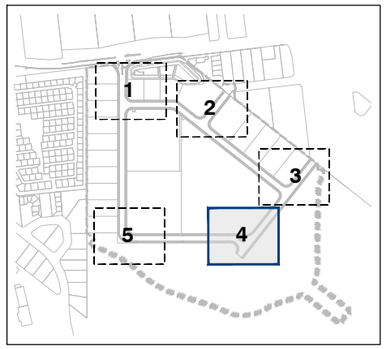
DRAWING TITLE

LINEMARKING AND SIGNAGE PLAN SHEET 3 OF 5

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 5 10 15 20 25
1:250 (FULL SIZE A1)
1:500 (HALF SIZE A3)

Scale at A1:	1:250
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020
Drawing No:	5941 ENG OPW1 802
Rev. No:	C



KEY PLAN
SCALE 1: 7500

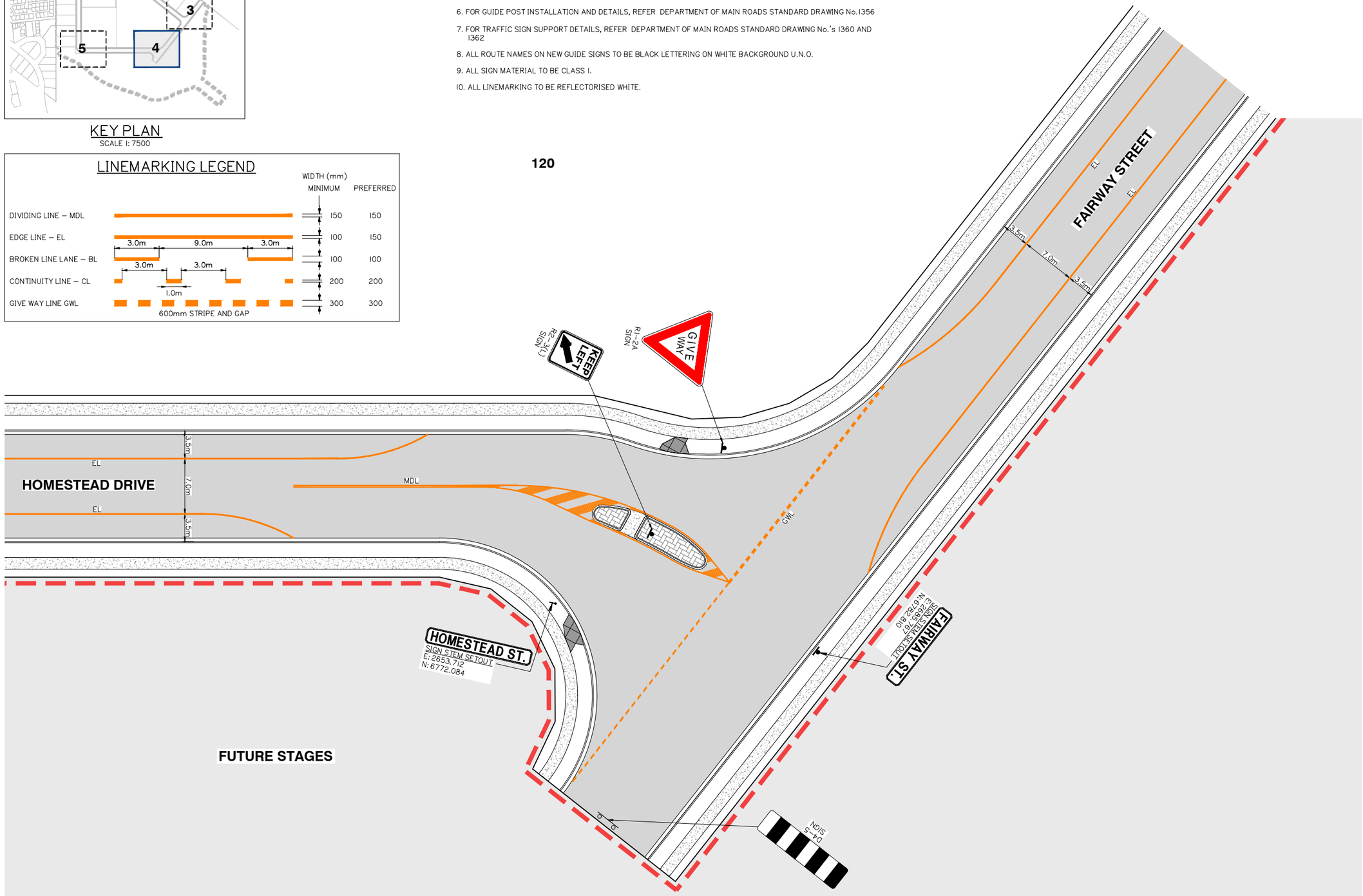
LINEMARKING LEGEND

	WIDTH (mm) MINIMUM	PREFERRED
DIVIDING LINE – MDL	150	150
EDGE LINE – EL	100	150
BROKEN LINE LANE – BL (3.0m / 9.0m / 3.0m)	100	100
CONTINUITY LINE – CL (3.0m / 3.0m / 1.0m)	200	200
GIVE WAY LINE GWL	300	300

600mm STRIPE AND GAP

NOTE:

1. ALL LINE–MARKING, SIGNAGE ABD REFLECTORISED PAVEMENT MARKERS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT DEPARTMENT OF MAIN ROADS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
2. EXTENT OF LINE–MARKING IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
3. EXACT LOCATION OF ALL SIGNS IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
4. ALL SIGN POSTS & SIGN RAILS TO BE GALVANISED UNLESS NOTED OTHERWISE.
5. ALL TRAFFIC SIGNS TO BE SIZE "B" UNLESS NOTED OTHERWISE.
6. FOR GUIDE POST INSTALLATION AND DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No.1356
7. FOR TRAFFIC SIGN SUPPORT DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No.'s 1360 AND 1362
8. ALL ROUTE NAMES ON NEW GUIDE SIGNS TO BE BLACK LETTERING ON WHITE BACKGROUND U.N.O.
9. ALL SIGN MATERIAL TO BE CLASS 1.
10. ALL LINEMARKING TO BE REFLECTORISED WHITE.



LINEMARKING AND SIGNAGE PLAN SHEET 4 OF 5

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 800.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:
FRASERS PROPERTY
FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:
VANTAGE YATALA STAGE 1

Site Address:
60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

LINEMARKING AND SIGNAGE PLAN SHEET 4 OF 5

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES
0 5 10 15 20 25
1:250 (FULL SIZE A1)
1:500 (HALF SIZE A3)

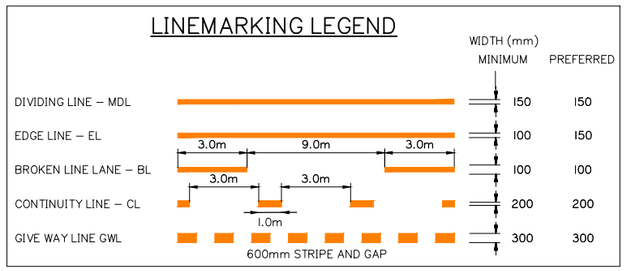
Scale at A1:	1:250
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

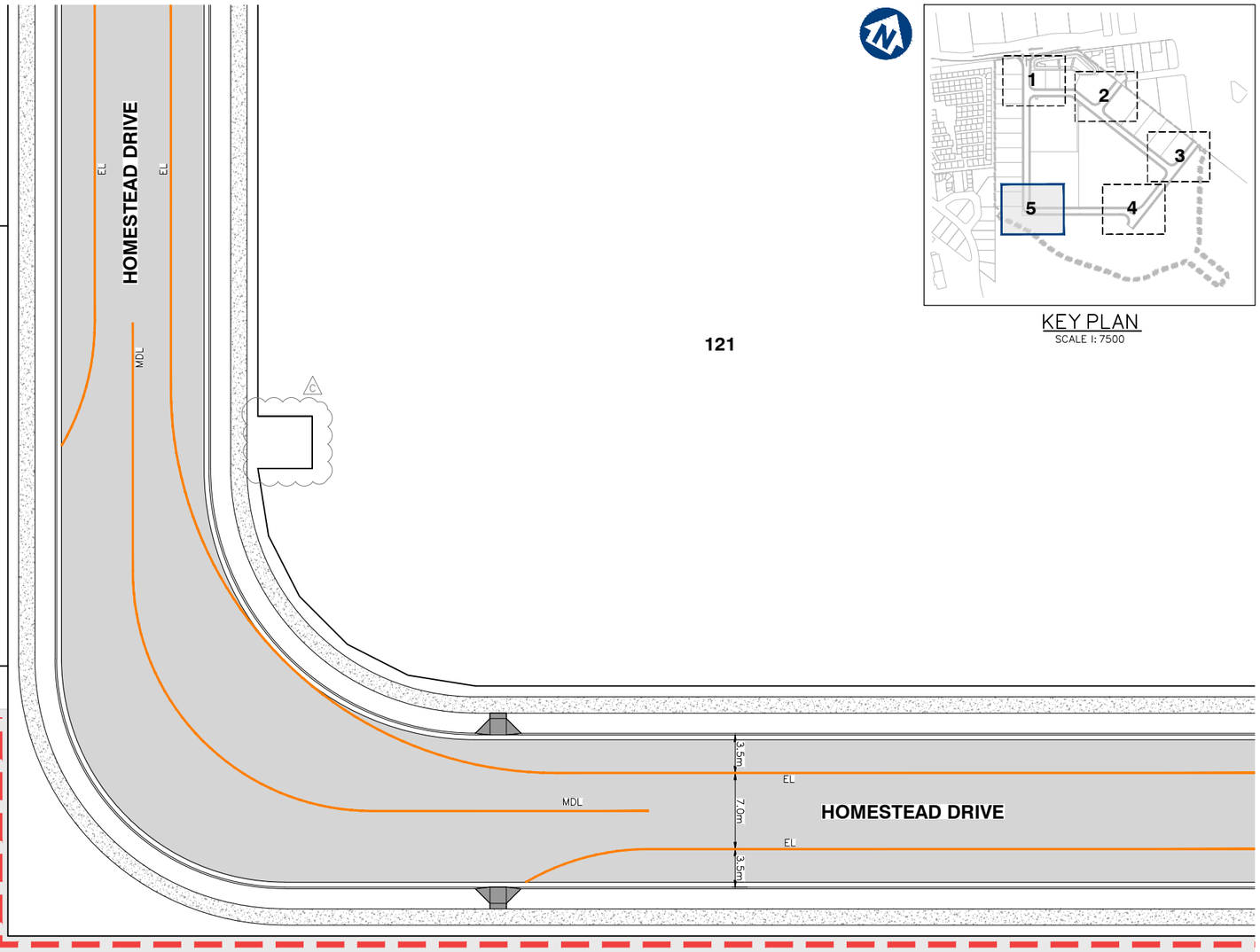
Drawing No: 5941 ENG OPW1 803
Rev. No: C

NOTE:

1. ALL LINE–MARKING, SIGNAGE ABD REFLECTORISED PAVEMENT MARKERS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT DEPARTMENT OF MAIN ROADS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
2. EXTENT OF LINE–MARKING IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
3. EXACT LOCATION OF ALL SIGNS IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
4. ALL SIGN POSTS & SIGN RAILS TO BE GALVANISED UNLESS NOTED OTHERWISE.
5. ALL TRAFFIC SIGNS TO BE SIZE "B" UNLESS NOTED OTHERWISE.
6. FOR GUIDE POST INSTALLATION AND DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No.1356
7. FOR TRAFFIC SIGN SUPPORT DETAILS, REFER DEPARTMENT OF MAIN ROADS STANDARD DRAWING No.'s 1360 AND 1362
8. ALL ROUTE NAMES ON NEW GUIDE SIGNS TO BE BLACK LETTERING ON WHITE BACKGROUND U.N.O.
9. ALL SIGN MATERIAL TO BE CLASS 1.
10. ALL LINEMARKING TO BE REFLECTORISED WHITE.

LINEMARKING LEGEND





KEY PLAN
SCALE 1: 7500

LINEMARKING AND SIGNAGE PLAN SHEET 5 OF 5

G:\Projects\5941\ENGINEERING\Acad\CIVIL WORKS STAGE 1\Current\5941 ENG OPW1 800.dwg

gassman development perspectives
est 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast & Logan | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FRASERS PROPERTY

FRASERS PROPERTY (AUSTRALIA) PTY. LTD.

Project:

VANTAGE YATALA STAGE 1

Site Address:

60 STAPYLTON JACOBS WELL ROAD, STAPYLTON QLD 4207

THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR

RPD:

Lot:	501
Plan:	SP295994
Local Authority:	CITY OF GOLD COAST COUNCIL
Level Datum:	AHD
Meridian:	-
Contour Interval:	-
PSM:	-
RL:	-

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

©2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES

DRAWING TITLE

LINEMARKING AND SIGNAGE PLAN SHEET 5 OF 5

Issue	Date	Description	DRN	CHK
C	02-09-2020	MINOR CHANGE TO STAGE 1	BA	MG
B	12-06-2020	INFORMATION REQUEST RESPONSE	BA	MG
A	01-05-2020	ORIGINAL ISSUE	BA	MG

SCALE IN METRES

0 5 10 15 20 25

1:250 (FULL SIZE A1)
1:500 (HALF SIZE A3)

Scale at A1:	1:250
Designed:	IG
Drafted:	BA
Approved:	MG
RPEQ:	16939
Signed:	
Date:	02-09-2020

Drawing No: 5941 ENG OPW1 804
Rev. No: C