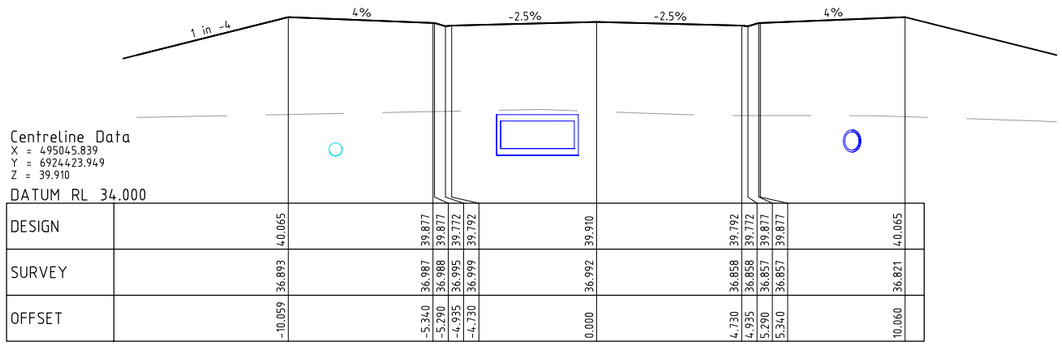


Centreline Data
X = 495039.903
Y = 6924431.996
Z = 39.472

DATUM RL 35.500

DESIGN	39.628					39.439	39.439	39.334	39.354		39.472				39.354	39.334	39.439	39.439			39.628		
SURVEY	36.665					36.580	36.579	36.573	36.569		36.469				36.344	36.344	36.344	36.344			36.369		
OFFSET	-10.059					-5.340	-5.290	-4.935	-4.730		0.000				4.730	4.935	5.290	5.340			10.060		

CHAINAGE 110

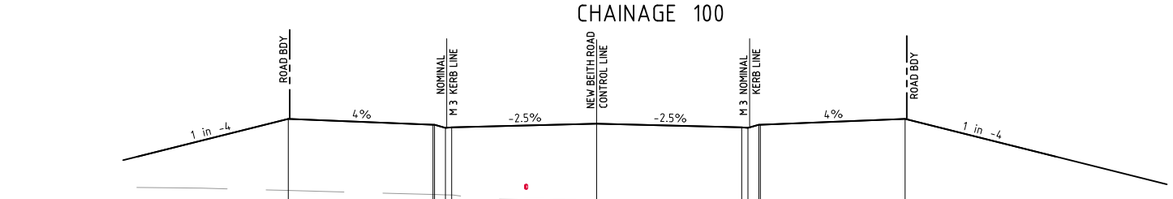


Centreline Data
X = 495045.839
Y = 6924423.949
Z = 39.910

DATUM RL 34.000

DESIGN	40.065					39.877	39.877	39.772	39.792		39.910				39.792	39.772	39.877	39.877			40.065		
SURVEY	36.893					36.987	36.988	36.995	36.999		36.992				36.858	36.858	36.857	36.857			36.821		
OFFSET	-10.059					-5.340	-5.290	-4.935	-4.730		0.000				4.730	4.935	5.290	5.340			10.060		

CHAINAGE 100



Centreline Data
X = 495051.775
Y = 6924415.901
Z = 40.104

DATUM RL 34.000

DESIGN	40.259					40.071	40.071	39.966	39.986		40.104				39.986	39.966	40.071	40.071			40.259		
SURVEY	37.924					37.795	37.793	37.784	37.778		37.544				37.344	37.334	37.318	37.317			37.275		
OFFSET	-10.059					-5.340	-5.290	-4.935	-4.730		0.000				4.730	4.935	5.290	5.340			10.060		

CHAINAGE 90

NEW BEITH ROAD

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)
1 0 1 2 3 4 5 1:100
SCALE
1 0 1 2 3 4 5 1:100
SCALE
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
AReuben

R.P.E.Q No.	24572	PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering

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p. 0415 704 063 & 0422 024 440
e. contact@friendsengineer.com
w. friendsengineer.com
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BURLEIGH TOWN QLD 4220

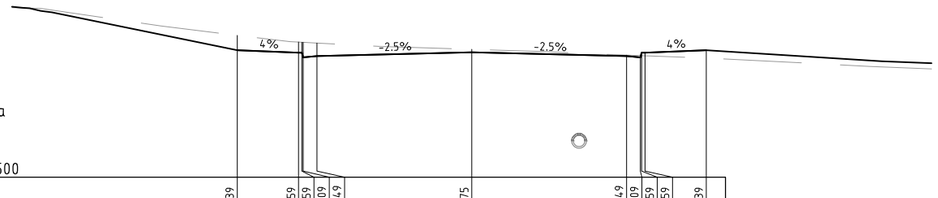
FILENAME: C344-FE25032 - NEW BEITH ROAD CROSS SECTIONS SHEET 2 OF 2.DWG

DRAWING TITLE:
NEW BEITH ROAD
CROSS SECTIONS
SHEET 2 OF 2

PROJECT No.	DRAWING No.	ISSUE
FE25032	C344	01

G:\Shared Drives\Projects 2025\FE25032 - 14-22 Wild Mint Drive, Flagstone\CAD\OPW\C344-FE25032 - NEW BEITH ROAD CROSS SECTIONS SHEET 2 OF 2.dwg

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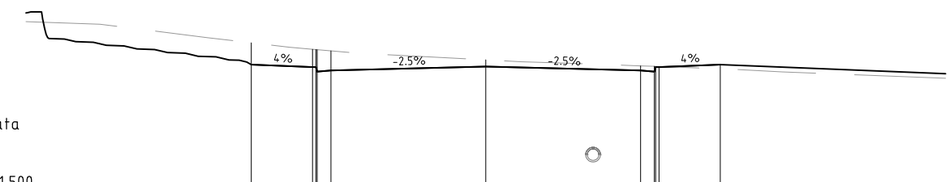


Centreline Data
X = 495049.193
Y = 6924233.484
Z = 45.575

DATUM RL 41.500

DESIGN	45.639		45.559	45.559	45.449		45.575		45.449	45.409	45.559		45.639
SURVEY	46.123		45.907	45.901	45.899	45.875	45.670		45.482	45.466	45.464	45.460	45.389
OFFSET	-7.650		-5.650	-5.540	-5.500	-5.050	0.000		5.050	5.500	5.540	5.650	7.650

CHAINAGE 35



Centreline Data
X = 495052.004
Y = 6924233.081
Z = 45.535

DATUM RL 41.500

DESIGN	45.599		45.519	45.519	45.369	45.409	45.535		45.409	45.369	45.519	45.519	45.599
SURVEY	46.309		46.099	46.089	46.086	46.047	45.753		45.558	45.542	45.541	45.537	45.465
OFFSET	-7.650		-5.650	-5.540	-5.500	-5.050	0.000		5.050	5.500	5.540	5.650	7.650

CHAINAGE 32.16

ROAD No. 1

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET) 1 0 1 2 3 4 5 1:100 SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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Email: info@srsurveys.com.au

CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No : 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

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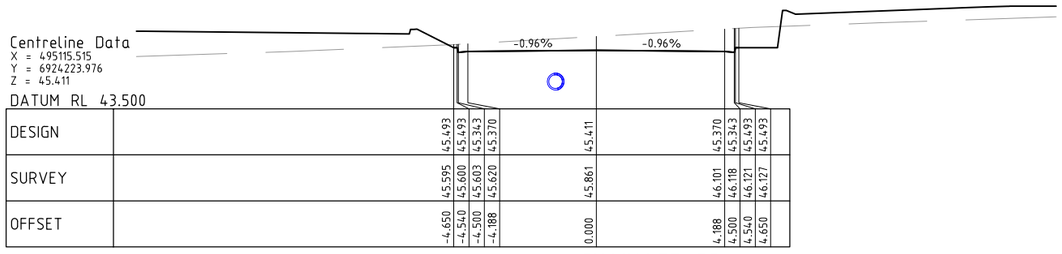
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DRAWING TITLE:
ROAD 1
CROSS SECTIONS

PROJECT No.	DRAWING No.	ISSUE
FE25032	C345	01

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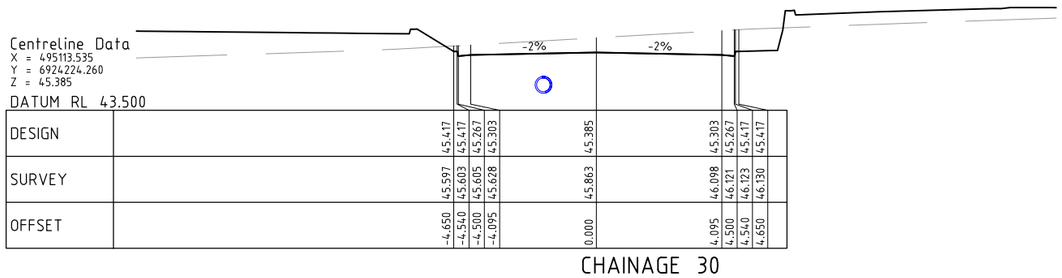


Centreline Data
X = 495115.515
Y = 6924223.976
Z = 45.411

DATUM RL 43.500

DESIGN	45.493	45.493	45.343	45.370	45.411	45.370	45.343	45.493	45.493		
SURVEY	45.595	45.600	45.603	45.620	45.861	46.101	46.118	46.121	46.127		
OFFSET	-4.650	-4.540	-4.500	-4.188	0.000	4.188	4.500	4.540	4.650		

CHAINAGE 32



Centreline Data
X = 495113.535
Y = 6924224.260
Z = 45.385

DATUM RL 43.500

DESIGN	45.417	45.417	45.267	45.303	45.385	45.303	45.267	45.417	45.417		
SURVEY	45.597	45.603	45.605	45.628	45.863	46.098	46.121	46.123	46.130		
OFFSET	-4.650	-4.540	-4.500	-4.095	0.000	4.095	4.500	4.540	4.650		

CHAINAGE 30

ROAD No.1

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)
1 0 1 2 3 4 5
SCALE 1:100

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS
AND LAND DEVELOPMENT CONSULTANTS
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Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No :24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

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BURLEIGH TOWN QLD 4220

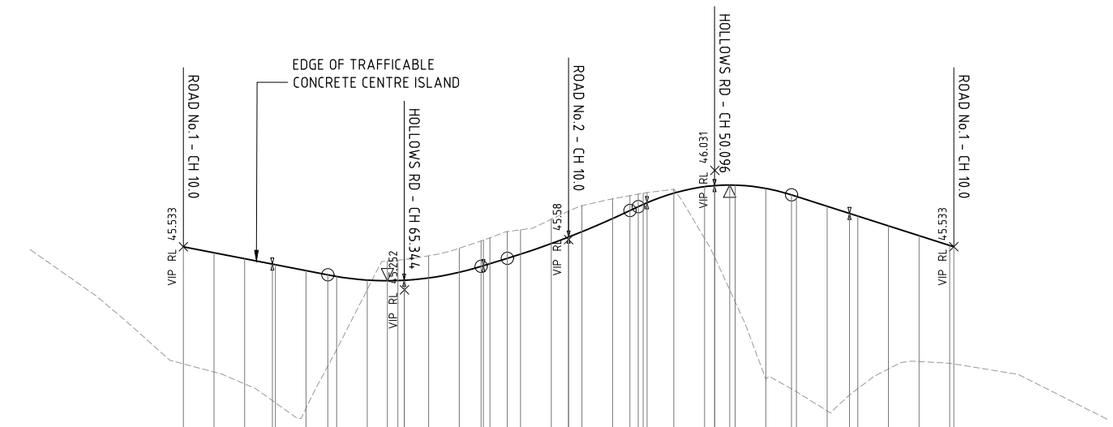
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DRAWING TITLE:
ROAD 2
CROSS SECTIONS

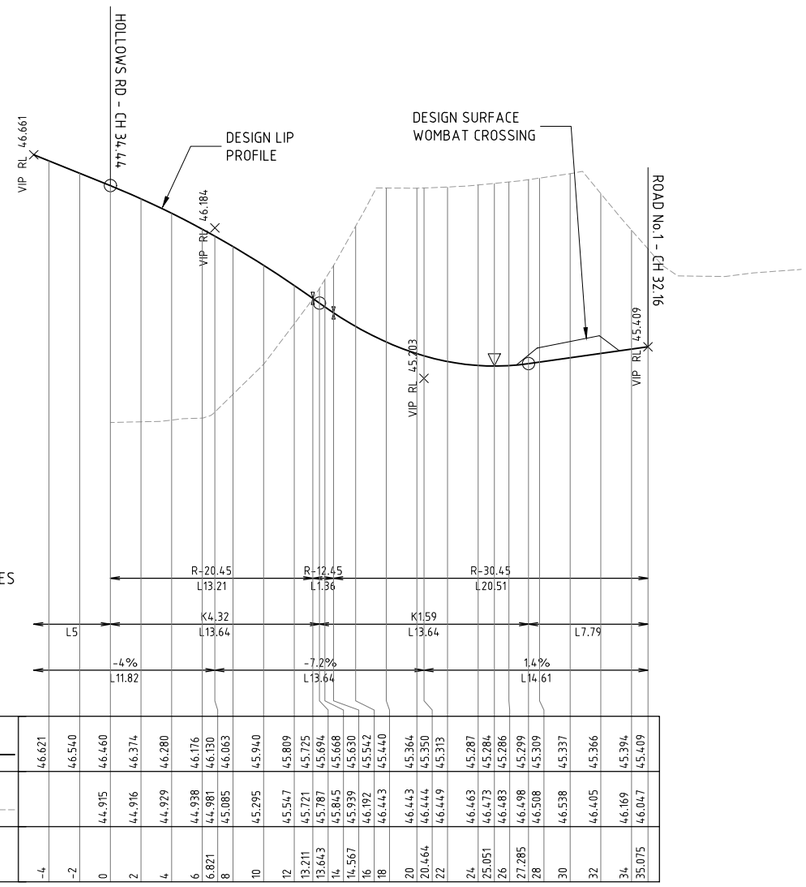
PROJECT No.	DRAWING No.	ISSUE
FE25032	C346	01

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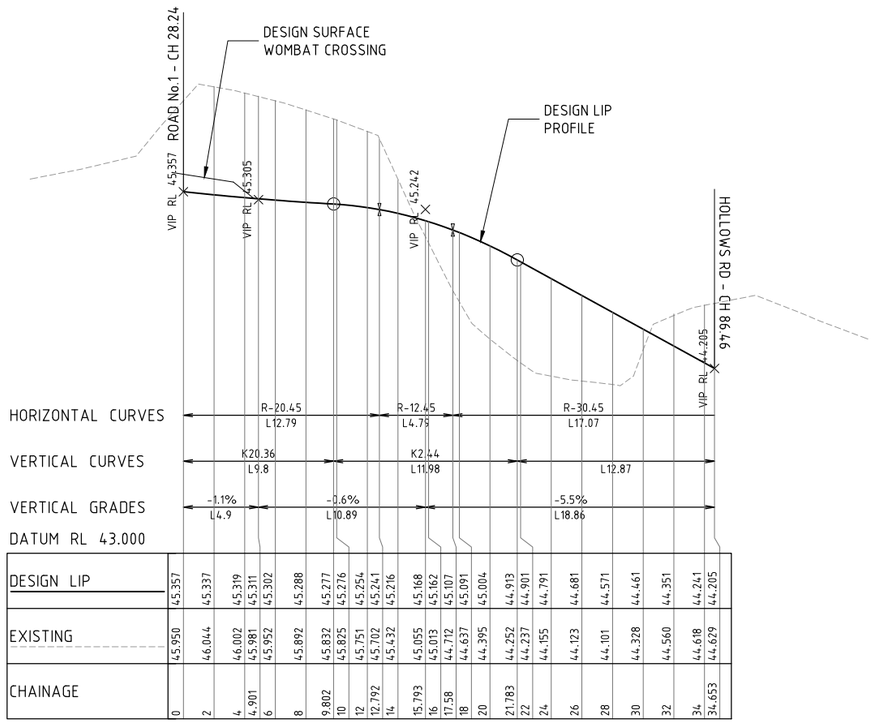

EDGE OF TRAFFICABLE
CONCRETE CENTRE ISLAND
ROAD No.1 - CH 10.0
HOLLOWS RD - CH 53.244
ROAD No.2 - CH 10.0
HOLLOWS RD - CH 50.096
ROAD No.1 - CH 10.0
VIP RL 45.533
VIP RL 45.252
VIP RL 45.558
VIP RL 46.031
VIP RL 45.533

| | | |



CHAINAGE	-4	-2	0	2	4	6	6.821	8	10	12	13.211	13.643	14	14.567	16	18	20	20.464	22	24	25.051	26	27.285	28	30	32	34	35.075
DESIGN LIP	46.621	46.540	46.460	46.374	46.280	46.176	46.130	46.063	45.940	45.809	45.725	45.694	45.668	45.630	45.542	45.440	45.364	45.350	45.313	45.287	45.284	45.286	45.299	45.309	45.337	45.366	45.394	45.409
EXISTING			44.915	44.916	44.929	44.938	44.981	45.085	45.295	45.547	45.721	45.787	45.845	45.939	46.192	46.443	46.443	46.444	46.449	46.463	46.473	46.483	46.498	46.508	46.538	46.405	46.169	46.047

HOLLOWS to ROAD 1 - KERB LIP PROFILE
A1 HORZ SCALE 1:200
A1 VERT SCALE 1:20



CHAINAGE	0	2	4	4.901	6	8	9.802	10	12	12.792	14	15.793	16	17.58	18	20	21.783	22	24	26	28	30	32	34	34.653
DESIGN LIP	45.357	45.337	45.319	45.311	45.302	45.288	45.277	45.276	45.254	45.241	45.216	45.168	45.162	45.107	45.091	45.004	44.913	44.901	44.791	44.681	44.571	44.461	44.351	44.241	44.205
EXISTING	45.950	46.044	46.002	45.981	45.952	45.892	45.832	45.825	45.751	45.702	45.432	45.055	45.013	44.712	44.637	44.395	44.252	44.237	44.155	44.123	44.101	44.328	44.560	44.618	44.629

ROAD 1 to HOLLOWS - KERB LIP PROFILE
A1 HORZ SCALE 1:200
A1 VERT SCALE 1:20

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)
0.2 0 0.2 0.4 0.6 0.8 1.0 SCALE 1:20
2 1 0 2 4 6 8 10 SCALE 1:200
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
AR

R.P.E.Q No	24572	PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering
Friends Civil Engineering Pty Ltd
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p. 0415 704 063 & 0422 024 440
e. contact@friendsengineer.com
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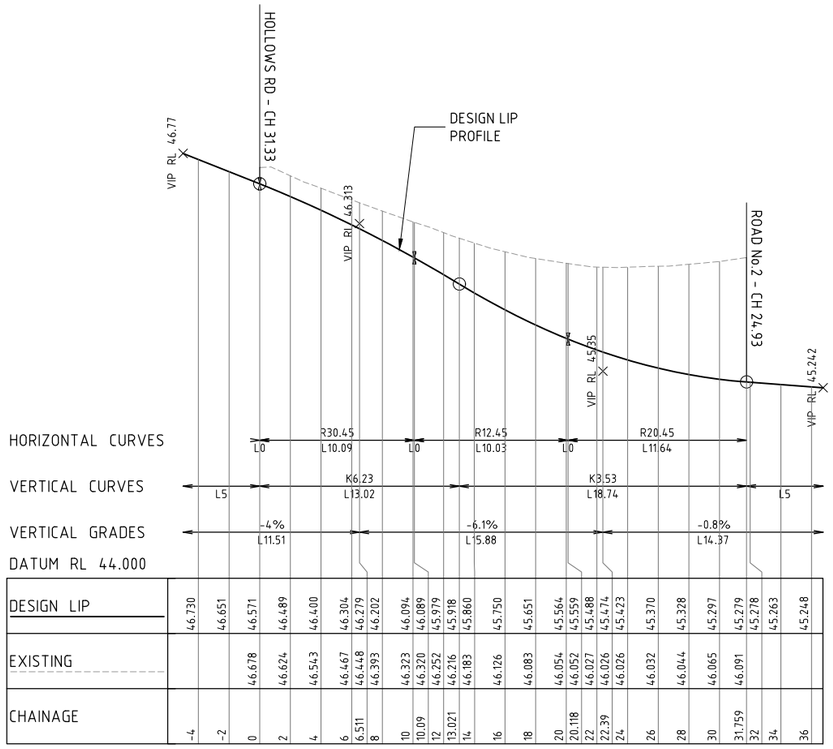
FILENAME: C351-FE25032 - KERB RETURN PROFILES HOLLOWS RD 2 OF 3.DWG

DRAWING TITLE:
KERB RETURN PROFILES
HOLLOWS ROAD
NEW ROUNDABOUT
2 of 3

PROJECT No.	DRAWING No.	ISSUE
FE25032	C351	01

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HOLLOWS RD - CH 31.33
DESIGN LIP PROFILE
ROAD No.2 - CH 24.93
VIP RL 46.77
VIP RL 46.313
VIP RL 45.455
VIP RL 45.242
HORIZONTAL CURVES
R30.45 L10.09
L0
R12.45 L10.03
L0
R20.45 L11.64
VERTICAL CURVES
L5
K6.23 L13.02
K3.53 L18.74
L5
VERTICAL GRADES
-4% L11.51
-6.1% L15.88
-0.8% L14.37
DATUM RL 44.000

| | | |

NOTE

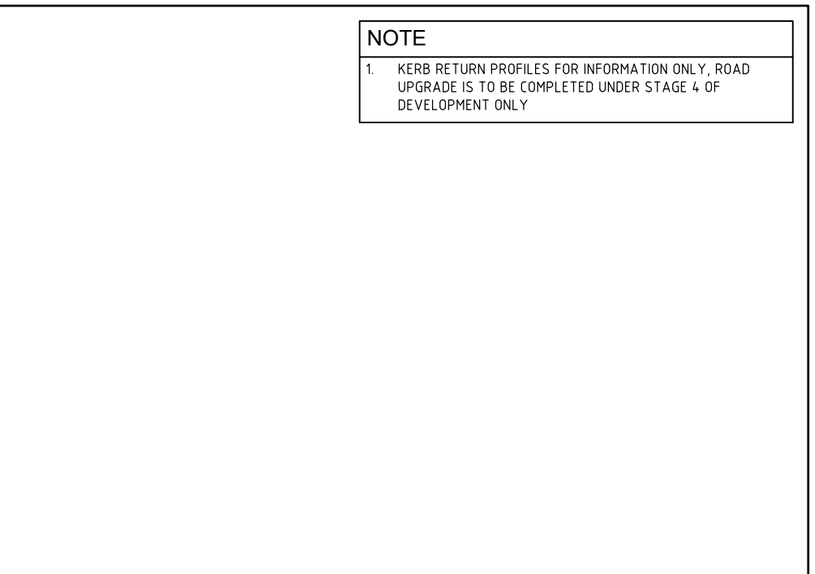
1. KERB RETURN PROFILES FOR INFORMATION ONLY, ROAD UPGRADE IS TO BE COMPLETED UNDER STAGE 4 OF DEVELOPMENT ONLY

DESIGN LIP	38.223	38.227	38.235	38.235	38.232	38.219	38.214	38.203	38.192	38.169	38.151	38.147	38.138	38.137	38.142	38.144	38.148
EXISTING	38.223	38.226	38.228	38.223	38.216	38.311	38.327	38.361	38.407	38.503	38.561	38.576	38.643	38.660	38.668	38.720	38.733	38.765
CHAINAGE	0	0.5	2	2.594	3	4	5.5	6	6.925	8	10	11.614	12	13.614	14	14.18	15.614	16	16.614

EXIST NEW BEITH to HOLLOWS - KERB LIP PROFILE
A1 HORZ SCALE 1:200
A1 VERT SCALE 1:20

DESIGN LIP	38.137	38.114	38.106	38.106	38.108	38.113	38.135	38.173	38.179	38.215	38.240	38.244	38.254	38.258	38.261	38.261	38.260	38.260	38.252	38.243	38.235	38.209	38.192	38.176	38.152	38.138	38.135	38.135	38.135	38.142	38.160	38.168
EXISTING	38.978	38.882	38.766	38.762	38.696	38.643	38.524	38.435	38.425	38.374	38.323	38.305	38.262	38.259	38.260	38.260	38.261	38.260	38.336	38.358	38.362	38.370	38.410	38.528	38.553	38.329	38.293	38.301	38.305	38.325	38.366	38.406
CHAINAGE	0	2	4	4.06	5.127	6	8	10	10.254	12	13.673	14	15.163	16	17.091	17.191	17.708	18	20	21.091	22	24	24.992	26	28	30	30.843	31.621	32	34	36	36.694

HOLLOWS to NEW BEITH - KERB LIP PROFILE
A1 HORZ SCALE 1:200
A1 VERT SCALE 1:20



DESIGN LIP	38.132	38.132	38.137	38.153	38.163	38.182	38.223	38.264	38.275	38.316	38.333	38.334	38.335	38.336	38.330	38.304	38.279	38.258	38.208	38.157
EXISTING	38.007	38.013	38.087	38.211	38.269	38.300	38.329	38.351	38.356	38.368	38.368	38.371	38.343	38.320	38.281	38.283	38.279			
CHAINAGE	0	0.269	2	4	4.79	6	8	9.579	10	12	13.668	14	14.369	14.653	16	18	19.159	20	22	24

NEW BEITH to PARKSIDE - KERB LIP PROFILE
A1 HORZ SCALE 1:200
A1 VERT SCALE 1:20

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)
0.2 0 0.2 0.4 0.6 0.8 1.0 SCALE 1:20
2 1 0 2 4 6 8 10 SCALE 1:200
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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Email: info@srsurveys.com.au

CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
AR Eubanks

R.P.E.Q No. 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering
Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
p. 0415 704 063 & 0422 024 440
e. contact@friendsengineer.com
w. friendsengineer.com
Mail PO Box 614 BURLEIGH TOWN QLD 4220

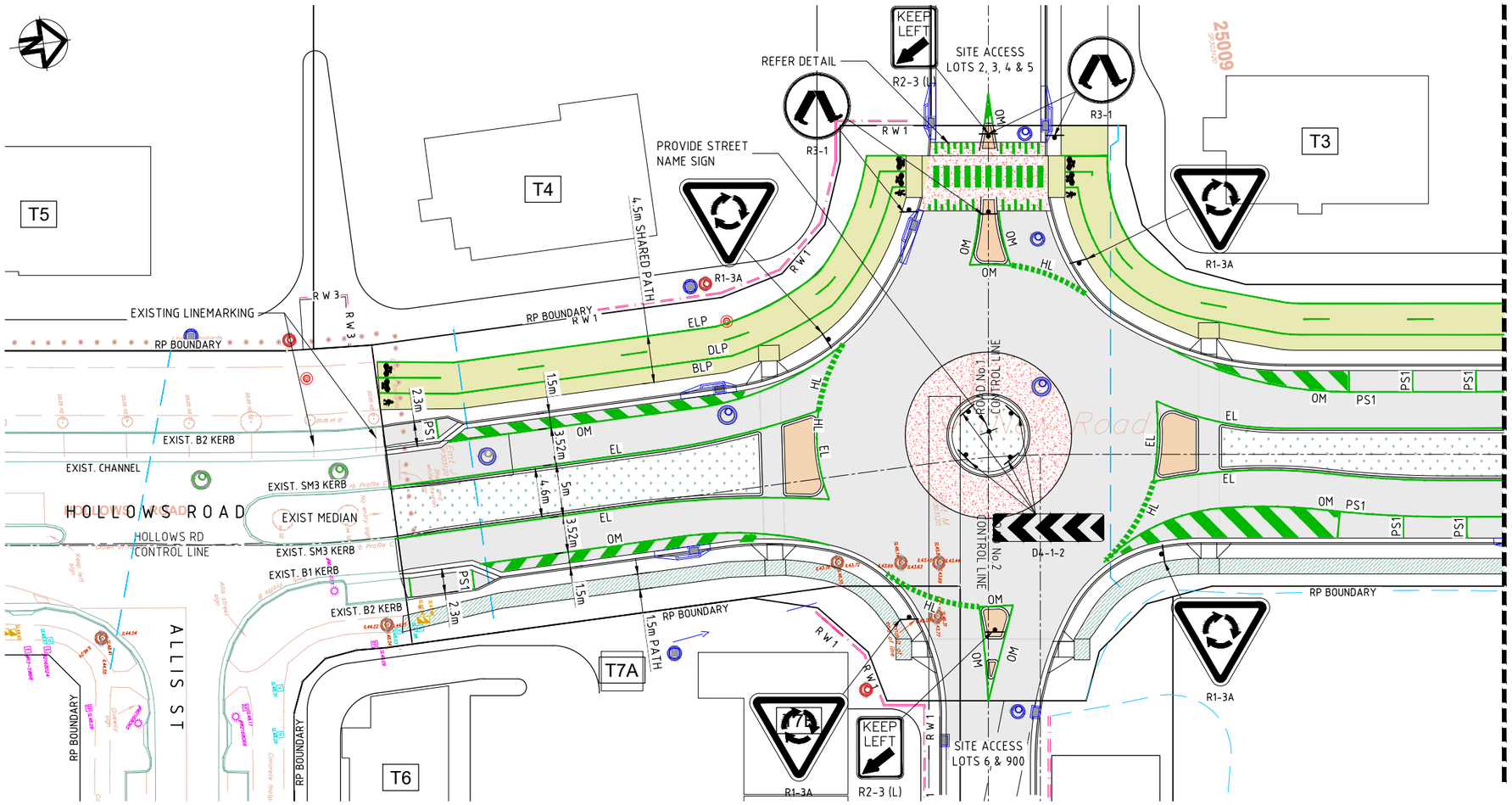
FILENAME: C353-FE25032 - KERB RETURN PROFILES NEW BEITH RD.DWG

DRAWING TITLE:
KERB RETURN PROFILES
NEW BEITH ROAD
EXISTING ROUNDABOUT

PROJECT No.	DRAWING No.	ISSUE
FE25032	C353	01

G:\Shared Drives\Projects 2025\FE25032 - 14-22 Wild Mint Drive, Flagstone\CAD\OPW\C353-FE25032 - KERB RETURN PROFILES NEW BEITH RD.dwg

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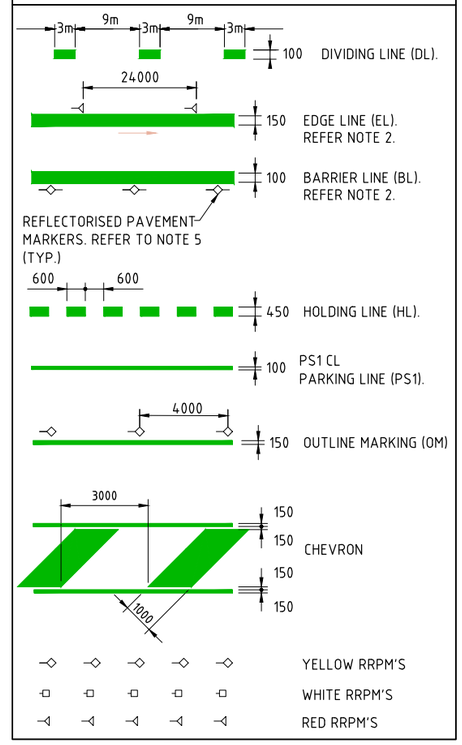


HOLLOWS ROAD PART LINEMARKING AND SIGNAGE PLAN
SCALE 1:250

LINEMARKING NOTES

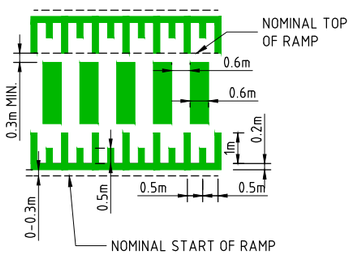
1. ALL SIGNAGE, LINEMARKING & RRPMs ARE TO BE INSTALLED AND PLACED IN ACCORDANCE WITH THE CURRENT TMR 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES' (MUTCD)
2. ALL LINEMARKING TO BE REFLECTORISED WHITE AND IN ACCORDANCE WITH 'MUTCD PART 2 - TRAFFIC CONTROL DEVICES GENERAL - SECTION 5. PAVEMENT MARKING AND DEVICES'.
3. FINAL SIGN LOCATIONS TO BE DETERMINED ON SITE BY ENGINEER.
4. EXISTING LINEMARKING SUPERSEDED BY NEW LINEMARKING IS TO BE REMOVED BY METHOD APPROVED BY 'DEPT. OF TRANSPORT AND MAIN ROADS' (TMR).
5. COLOUR AND INSTALLATION OF ALL RETROREFLECTIVE RAISED PAVEMENT MARKERS (RRPM) TO BE IN ACCORDANCE WITH 'MUTCD PART 2 - TRAFFIC CONTROL DEVICES GENERAL - SECTION 5, 5.7'
6. PAINTED MEDIAN STRIP COLOUR AND INSTALLATION OF ALL (RRPMs) TO BE IN ACCORDANCE WITH 'MUTCD PART 2 - TRAFFIC CONTROL DEVICES GENERAL - SECTION 5 PART 5.5 OTHER MARKINGS, FIGURE 5.6 PAINTED ISLANDS AND MEDIAN STRIPS & SECTION 5 PART 5.6 RAISED PAVEMENT MARKERS FIGURE 5.25 PAINTED MEDIAN STRIPS'.
7. ALL TRAFFIC SIGNS TO BE SIZE 'B' UNLESS NOTED OTHERWISE.
8. FOR ROAD EDGE GUIDE POST INSTALLATION AND DETAILS REFER TMR STANDARD DRAWING No.1356 AND 'MUTCD PART 2 TRAFFIC CONTROL DEVICES GENERAL - SECTION 4 PART 4.2.4 GUIDE POSTS.
9. FOR TRAFFIC SIGN SUPPORT DETAILS REFER TMR STANDARD DRAWING'S No.1363 & 1368.
10. ALL ROUTE NAMES (eg NIELSONS ROAD) ON NEW GUIDE SIGNS TO BE BLACK LETTERING ON WHITE BACKGROUND.
11. ALL SIGN MATERIAL TO BE CLASS 1.
12. SUITABLE EXISTING STREET AND ROAD SIGNS TO REMAIN IF APPLICABLE (AS DIRECTED BY THE SUPERINTENDENT)

LINEMARKING LEGEND



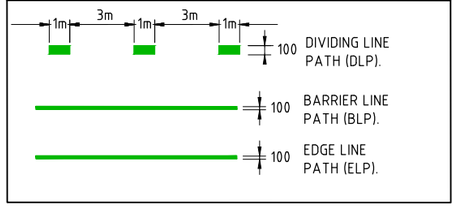
LEGEND

- SITE BOUNDARY
- KO — BARRIER KERB TYPE 'B2'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- BKC — BARRIER KERB TYPE 'B1'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- M3 — MOUNTABLE KERB TYPE 'M3'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- DD — DISH DRAIN TYPE 'CHANNEL'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- SM3 — SEMI-MOUNTABLE KERB TYPE 'SM3'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- PROPOSED FOOTPATH. LCC REFER IPWEA-QNT STD. DRG. PCD-101-102 (TYP.)
- PROP. STORMWATER NETWORK REFER DRG. No.C400
- PROP. SEWER NETWORK REFER DRG. No.C600



RAISED PEDESTRIAN CROSSING LINEMARKING DETAIL
SCALE 1:100

LINEMARKING LEGEND



NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

ARCHITECT

SCALE (A1 SHEET)
5 0 5 10 SCALE 1:250
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR
SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
5/M53 Metroplex Avenue, MURARRIE QLD 4172
Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION
APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
R.P.E.Q No :24572

HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

PROJECT TEAM

Friends civil engineering
Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
p. 0415 704 063 & 0422 024 440
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w. friendsengineer.com
Mail PO Box 614 BURLEIGH TOWN QLD 4220

FILENAME: C360-FE25032 - LINEMARKING AND SIGNAGE PLAN 1 OF 2.DWG

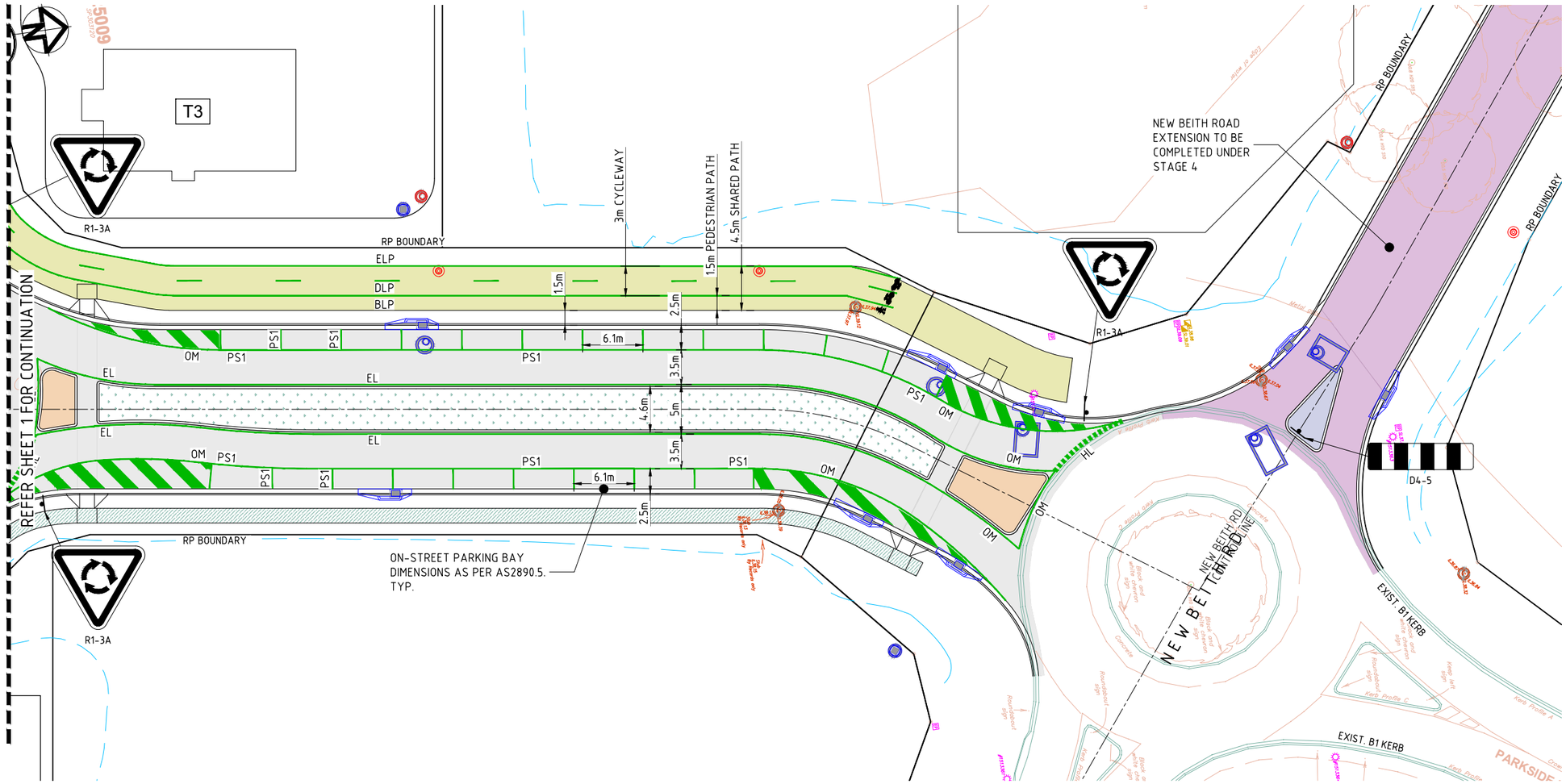
DRAWING TITLE:
LINEMARKING AND SIGNAGE LAYOUT PLAN SHEET 1

PROJECT No.	DRAWING No.	ISSUE
FE25032	C360	01

100mm on A1 SIZE SHEET

G:\Shared Drives\Projects 2025\FE25032 - 14-22 Wild Mint Drive, Flagstone\CAD\OPW\C360-FE25032 - LINEMARKING AND SIGNAGE PLAN 1 OF 2.dwg

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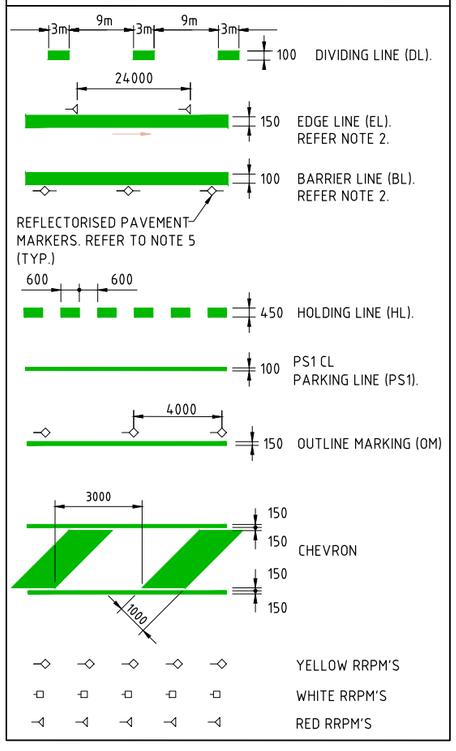
HOLLOWS ROAD PART LINEMARKING AND SIGNAGE PLAN

SCALE 1:250

LINEMARKING NOTES

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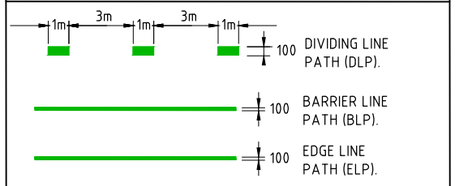
LINEMARKING LEGEND



LEGEND

- SITE BOUNDARY
- KO — BARRIER KERB TYPE 'B2'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- BKC — BARRIER KERB TYPE 'B1'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- M3 — MOUNTABLE KERB TYPE 'M3'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- DD — DISH DRAIN TYPE 'CHANNEL'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- SM3 — SEMI-MOUNTABLE KERB TYPE 'SM3'. LCC REFER IPWEA-QNT STD. DRG. RSD-200 (TYP.)
- PROPOSED FOOTPATH. LCC REFER IPWEA-QNT STD. DRG. PCD-101-102 (TYP.)
- PROP. STORMWATER NETWORK REFER DRG. No.C400
- PROP. SEWER NETWORK REFER DRG. No.C600

LINEMARKING LEGEND



NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

ARCHITECT

SCALE (A1 SHEET)

5 0 5 10 1:250

SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
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CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
5/M53 Metroplex Avenue, MURARRIE QLD 4172
Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE: COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No.	24572	PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering
Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
p. 0415 704 063 & 0422 024 440
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w. friendsengineer.com
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FILENAME: C361-FE25032 - LINEMARKING AND SIGNAGE PLAN 2 OF 2.DWG

DRAWING TITLE: LINEMARKING AND SIGNAGE LAYOUT PLAN SHEET 2

PROJECT No.	DRAWING No.	ISSUE
FE25032	C361	01

100mm on A1 SIZE SHEET

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TEMPORARY SWALE DRAIN. DIRECT FLOWS TO EXIST. DAM. PROVIDE SCOUR PROTECTION TO BATTER AND OUTLET.

STORMWATER CONNECTION FOR LOT 1. REFER DRG. No.C316

STORMWATER CONNECTION FOR LOT 2. REFER DRG. No.C316

STORMWATER CONNECTION FOR LOT 3. REFER DRG. No.C313

STORMWATER CONNECTION FOR LOT 4. REFER DRG. No.C312

STORMWATER CONNECTION FOR LOT 5. REFER DRG. No.C311

FOR END OF LINE SWD BASIN REFER DRG. NoC420??.

FOR END OF LINE SWD BASIN REFER C450.

EXISTING DAM

EXISTING DAM

FUTURE NEW BEITH ROAD TO BE CONSTRUCTED UNDER STAGE 4 WORKS.

NEW ROUNDABOUT

EXIST. ROUNDABOUT

FOR SWD LONGITUDINAL SECTION REFER DRG. No.C410

EXIST. Ø450 SWD LINE FROM PIT "1/01" TO BE MADE REDUNDANT.

CONSTRUCT NEW Ø1050 SWD MH OVER EXIST. Ø450 SWD LINE IN EASEMENT AND DIVERT TO NEW SWD NETWORK.

CONNECT NEW Ø375 RCP FOR LOT 5 SWD CONNECTION INTO EXIST. SWD MH

EXIST. Ø150 PVC-M WATER

EXIST. Ø100 PVC-M WATER

EXIST. TRUNK DN375 DI-PN35 WATER

EASEMENT FOR SEWER STORMWATER 3.0m WIDE

EXIST. ADJ. LOT SWD FIELD INLET PIT. ExGL46.45

T2 T3 T4 T5 T6 T7A T7B T8 T9 T10

HOLLOWS ROAD

ALLIS ST

NEW BEITH RD

RP BOUNDARY

OMS

STORMWATER LAYOUT PLAN
SCALE 1:500

NOTES / WARNINGS
1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.

PAVEMENT LEGEND
- PROPOSED AC ROAD PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- FUTURE AC ROAD PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- FUTURE CONCRETE VEHICULAR CROSSING AND DRIVEWAY. LCC REFER IPWEA-QNT STD. DRG. RSD-102
- PROPOSED CONCRETE FOOTPATH LCC REFER IPWEA-QNT STD. DRG. PCD-101.
- PROPOSED CONCRETE SHARED CYCLEWAY/ FOOTPATH. LCC REFER IPWEA-QNT STD. DRG. PCD-102 &101
- PROPOSED 100mm MEDIAN INFILL CONCRETE. REFER IPWEA-QNT STD. DRG. PCD-101
- FUTURE MEDIAN INFILL CONCRETE. REFER PAVEMENT SPECIFICATION DRG. No.C335
- PROPOSED TRAFFICABLE CONCRETE PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- PROPOSED LANDSCAPED MEDIAN. REFER IPWEA-QNT RSD-801, LCC AND LANDSCAPE ARCHITECT.

LEGEND
- SITE BOUNDARY
- 12.0 DESIGN CONTOUR 1.0m MAJOR INTERVALS
- DESIGN CONTOUR MINOR 0.5m
- PROPOSED STORMWATER LINE
- PROP. STORMWATER INLET STRUCTURES. REFER DRG. No.C410
- 1/01 PROP. STORMWATER STRUCTURE LABEL
- PROP. Ø1050 STORMWATER MANHOLE. REFER IPWEA-QNT STD DRG. DSD-101

LEGEND - EXISTING SURVEY
- 80 EXIST. SURVEY 0.5m CONTOUR INTERVAL
- SWD EXISTING STORMWATER DRAINAGE
- W EXISTING WATER
- S EXISTING SEWER
- E EXISTING UNDERGROUND ELECTRICAL
- OE EXISTING OVERHEAD ELECTRICAL
- T EXISTING TELSTRA / COMMS

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET) 10 0 10 20 1:500 SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
5/M53 Metroplex Avenue, MURARRIE QLD 4172
Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
AR

R.P.E.Q No	24572	PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering

Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
p. 0415 704 063 & 0422 024 440
e. contact@friendsengineer.com
w. friendsengineer.com
Mail PO Box 614 BURLEIGH TOWN QLD 4220

FILENAME: C400-FE25032 - OVERALL STORMWATER LAYOUT PLAN.DWG

DRAWING TITLE: STORMWATER LAYOUT PLAN

PROJECT No.	DRAWING No.	ISSUE
FE25032	C400	01

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REFER SHEET 2 FOR CONTINUATION

REFER SHEET 3 FOR CONTINUATION

STORMWATER CONNECTION FOR LOT 4.
DN225 uPVC SN8
DSIL 44.63
USIL 44.73
LENGTH 1.0m
GRADE 1.0%

STORMWATER CONNECTION FOR LOT 5.
DN225 uPVC SN8
DSIL 45.775
USIL 45.785
LENGTH 1.0m
GRADE 1.0%

STORMWATER CONNECTION FOR LOT 3.
DN225 uPVC SN8
DSIL 42.016
USIL 42.026
LENGTH 1.0m
GRADE 1.0%

INTERNAL ASSUMED FINISHED LEVELS, SUBJECT TO MCU DETAILED DESIGN BY OTHERS

INTERNAL ASSUMED FINISHED LEVELS, SUBJECT TO MCU DETAILED DESIGN BY OTHERS

NEW ROUNDABOUT

HOLLOWS ROAD

HOLLOWS RD CONTROL LINE

ROAD No.1 CONTROL LINE

ROAD No.2 CONTROL LINE

CONNECT NEW Φ375 RCP FOR LOT 5 SWD CONNECTION INTO EXIST. DN1350 SWD MH.

EXISTING STORMWATER LINE TO BE REMOVED

FOR SWD LONGITUDINAL SECTION REFER DRG. No.C410-C415

EXIST. Φ450 SWD LINE FROM PIT "1/01" TO BE MADE REDUNDANT.

NEW PRIVATE EASEMENT OVER STORMWATER RELOCATION TO MATCH EXISTING EASEMENT TERMS

3m EXISTING EASEMENT

3m SW EASEMENT

STORMWATER CONNECTION FOR LOT 6.
DN225 uPVC SN8
DSIL 44.63
USIL 44.73
LENGTH 1.0m
GRADE 1.0%

CONSTRUCT NEW Φ1050 SWD MH OVER EXIST. Φ450 SWD LINE IN EASEMENT AND DIVERT TO NEW SWD NETWORK.

T3 T4 T6 T7A T7B

FFL45.48 FFL47.95 FFL49.00 FFL48.30 FFL46.85 FFL46.75

RP BOUNDARY

BULK EARTHWORKS DESIGN & CONSTRUCT CONTRACTOR NOTE:

1. SURFACE LEVELS WITHIN LOTS SHOWN ON THESE PLANS ARE INDICATIVE FINISHED SURFACE LEVELS. SITE PADS WILL BE HANDED OVER 300mm LOWER THAN INDICATIVE FINISHED SURFACE LEVELS SHOWN TO ALLOW FOR PAVEMENT AND BUILDING PAD THICKNESS.
2. FINAL LEVELS ARE SUBJECT TO MCU/OPW APPROVAL PACKAGE

STORMWATER LAYOUT PLAN

SCALE 1:200

NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.

PAVEMENT LEGEND

- PROPOSED AC ROAD PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- FUTURE AC ROAD PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- FUTURE CONCRETE VEHICULAR CROSSING AND DRIVEWAY. LCC REFER IPWEA-QNT STD. DRG. RSD-102
- PROPOSED CONCRETE FOOTPATH LCC REFER IPWEA-QNT STD. DRG. PCD-101.
- PROPOSED CONCRETE SHARED CYCLEWAY/ FOOTPATH. LCC REFER IPWEA-QNT STD. DRG. PCD-102 &101
- PROPOSED 100mm MEDIAN INFILL CONCRETE. REFER IPWEA-QNT STD. DRG. PCD-101
- FUTURE MEDIAN INFILL CONCRETE. REFER PAVEMENT SPECIFICATION DRG. No.C335
- PROPOSED TRAFFICABLE CONCRETE PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- PROPOSED LANDSCAPED MEDIAN. REFER IPWEA-QNT RSD-801, LCC AND LANDSCAPE ARCHITECT.

LEGEND

- SITE BOUNDARY
- DESIGN CONTOUR 1.0m MAJOR INTERVALS (12.0)
- DESIGN CONTOUR MINOR 0.5m
- PROPOSED STORMWATER LINE
- PROP. STORMWATER INLET STRUCTURES. REFER DRG. No.C410
- PROP. STORMWATER STRUCTURE LABEL (1/01)
- PROP. Φ1050 STORMWATER MANHOLE. REFER IPWEA-QNT STD DRG. DSD-101
- INTERNAL INDICATIVE LEVELS

LEGEND - EXISTING SURVEY

- EXIST. SURVEY 0.5m CONTOUR INTERVAL (80)
- EXISTING STORMWATER DRAINAGE (SWD)
- EXISTING WATER (W)
- EXISTING SEWER (S)
- EXISTING UNDERGROUND ELECTRICAL (E)
- EXISTING OVERHEAD ELECTRICAL (OE)
- EXISTING TELSTRA / COMMS (T)

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

2 1 0 2 4 6 8 10 1:200
SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No. 24572

		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering

Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
p. 0415 704 063 & 0422 024 440
e. contact@friendsengineer.com
w. friendsengineer.com
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PO Box 614
BURLEIGH TOWN QLD 4220

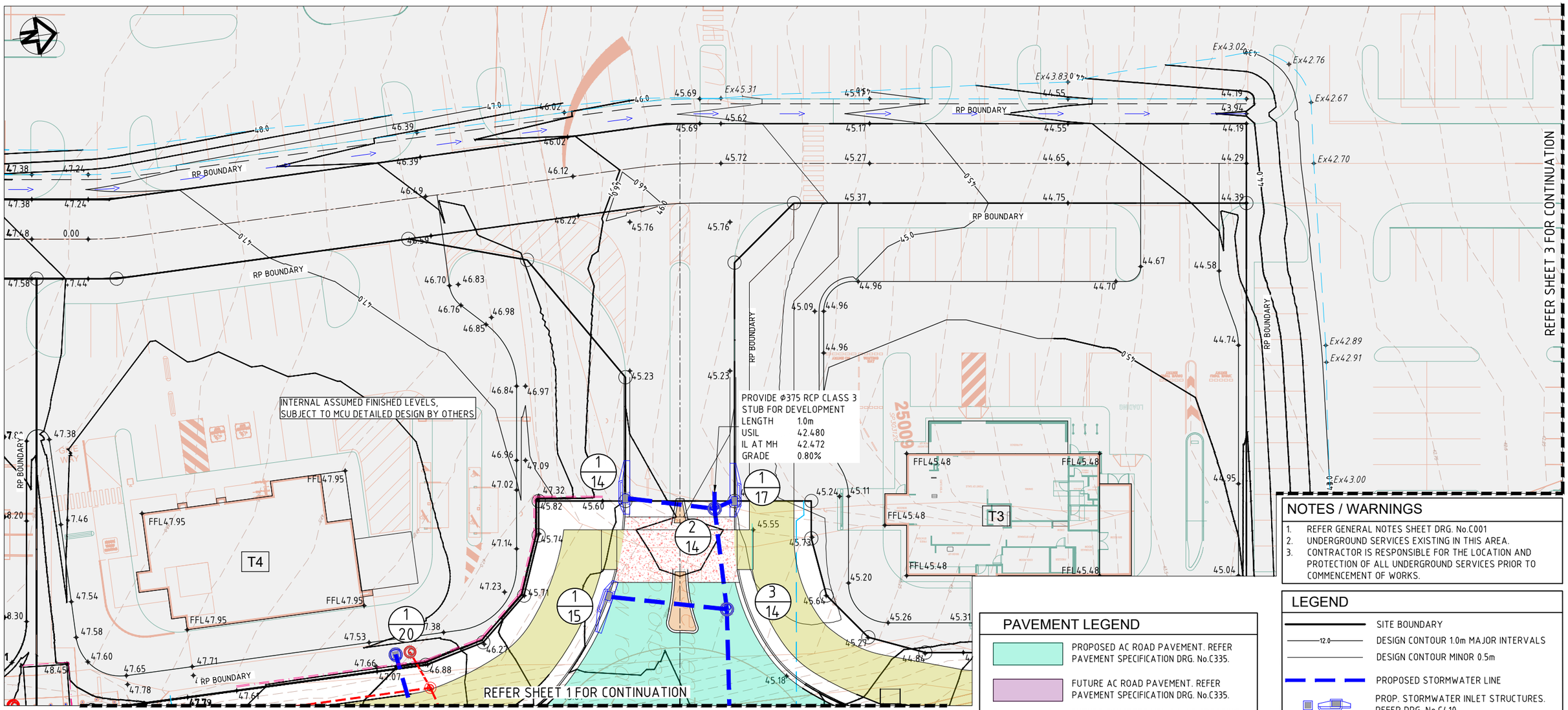
FILENAME: C401-FE25032 - STORMWATER LAYOUT PLAN SHEET 1.DWG

DRAWING TITLE:
STORMWATER LAYOUT PLAN SHEET 1

PROJECT No.	DRAWING No.	ISSUE
FE25032	C401	01

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STORMWATER LAYOUT PLAN
SCALE 1:200

BULK EARTHWORKS DESIGN & CONSTRUCT CONTRACTOR NOTE:
1. SURFACE LEVELS WITHIN LOTS SHOWN ON THESE PLANS ARE INDICATIVE FINISHED SURFACE LEVELS. SITE PADS WILL BE HANDED OVER 300mm LOWER THAN INDICATIVE FINISHED SURFACE LEVELS SHOWN TO ALLOW FOR PAVEMENT AND BUILDING PAD THICKNESS.
2. FINAL LEVELS ARE SUBJECT TO MCU/OPW APPROVAL PACKAGE

NOTES / WARNINGS
1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.

PAVEMENT LEGEND
- PROPOSED AC ROAD PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- FUTURE AC ROAD PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- FUTURE CONCRETE VEHICULAR CROSSING AND DRIVEWAY. LCC REFER IPWEA-QNT STD. DRG. RSD-102
- PROPOSED CONCRETE FOOTPATH LCC REFER IPWEA-QNT STD. DRG. PCD-101.
- PROPOSED CONCRETE SHARED CYCLEWAY/ FOOTPATH. LCC REFER IPWEA-QNT STD. DRG. PCD-102 &101
- PROPOSED 100mm MEDIAN INFILL CONCRETE. REFER IPWEA-QNT STD. DRG. PCD-101
- FUTURE MEDIAN INFILL CONCRETE. REFER PAVEMENT SPECIFICATION DRG. No.C335
- PROPOSED TRAFFICABLE CONCRETE PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- PROPOSED LANDSCAPED MEDIAN. REFER IPWEA-QNT RSD-801, LCC AND LANDSCAPE ARCHITECT.

LEGEND
- SITE BOUNDARY
- 12.0 DESIGN CONTOUR 1.0m MAJOR INTERVALS
- DESIGN CONTOUR MINOR 0.5m
- PROPOSED STORMWATER LINE
- PROP. STORMWATER INLET STRUCTURES. REFER DRG. No.C410
- 1/01 PROP. STORMWATER STRUCTURE LABEL
- PROP. Φ1050 STORMWATER MANHOLE. REFER IPWEA-QNT STD DRG. DSD-101
- INTERNAL INDICATIVE LEVELS

LEGEND - EXISTING SURVEY
- 80 EXIST. SURVEY 0.5m CONTOUR INTERVAL
- SWD EXISTING STORMWATER DRAINAGE
- W EXISTING WATER
- E EXISTING SEWER
- E EXISTING UNDERGROUND ELECTRICAL
- OE EXISTING OVERHEAD ELECTRICAL
- T EXISTING TELSTRA / COMMS

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)
2 1 0 2 4 6 8 10 1:200
SCALE
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR
SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
5/M53 Metroplex Avenue, MURARRIE QLD 4172
Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION
APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No. 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering
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BURLEIGH TOWN QLD 4220

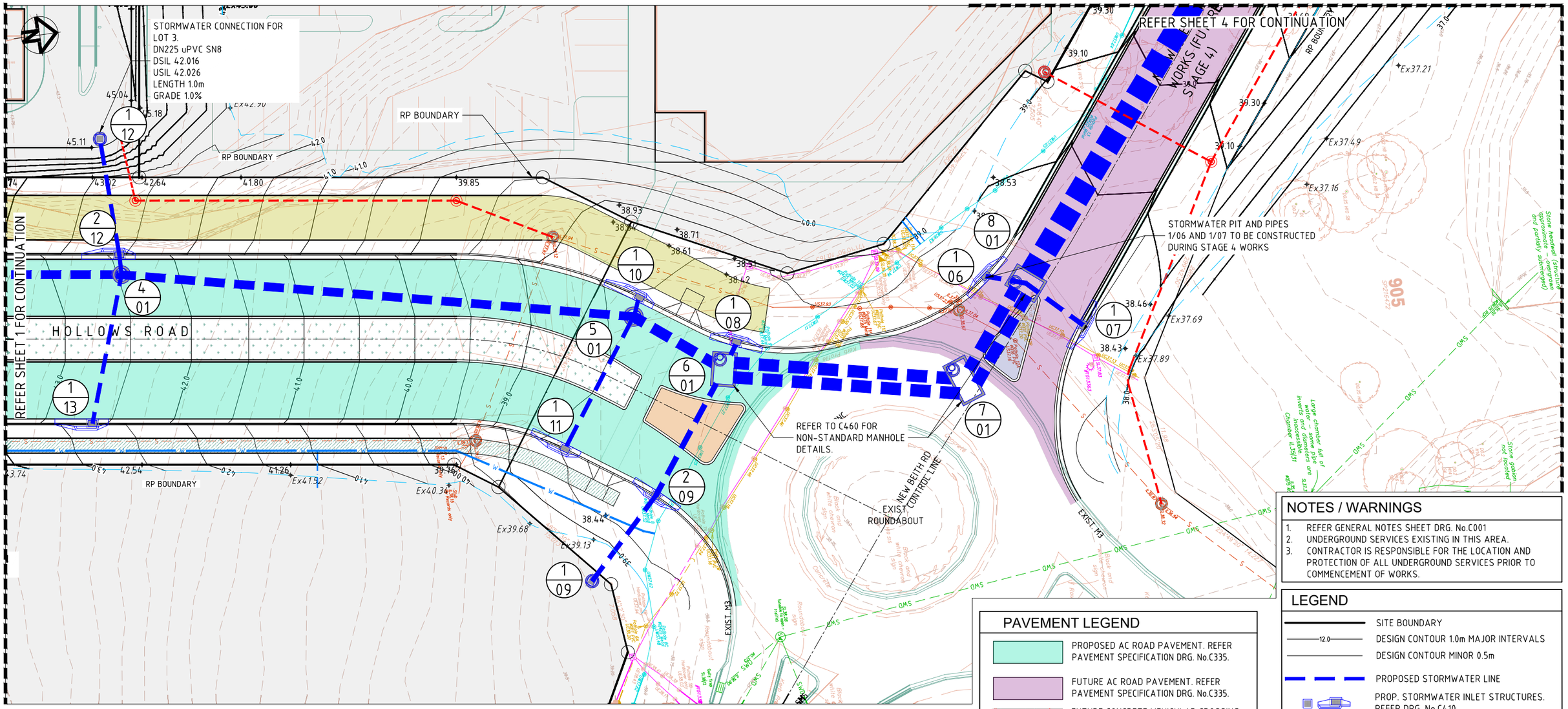
FILENAME: C402-FE25032 - STORMWATER LAYOUT PLAN SHEET 2.DWG

DRAWING TITLE:
STORMWATER LAYOUT PLAN SHEET 2

PROJECT No.	DRAWING No.	ISSUE
FE25032	C402	01

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STORMWATER LAYOUT PLAN
SCALE 1:200

BULK EARTHWORKS DESIGN & CONSTRUCT CONTRACTOR NOTE:
1. SURFACE LEVELS WITHIN LOTS SHOWN ON THESE PLANS ARE INDICATIVE FINISHED SURFACE LEVELS. SITE PADS WILL BE HANDED OVER 300mm LOWER THAN INDICATIVE FINISHED SURFACE LEVELS SHOWN TO ALLOW FOR PAVEMENT AND BUILDING PAD THICKNESS.
2. FINAL LEVELS ARE SUBJECT TO MCU/OPW APPROVAL PACKAGE

NOTES / WARNINGS
1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
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PAVEMENT LEGEND
- PROPOSED AC ROAD PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- FUTURE AC ROAD PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- FUTURE CONCRETE VEHICULAR CROSSING AND DRIVEWAY. LCC REFER IPWEA-QNT STD. DRG. RSD-102
- PROPOSED CONCRETE FOOTPATH LCC REFER IPWEA-QNT STD. DRG. PCD-101.
- PROPOSED CONCRETE SHARED CYCLEWAY/ FOOTPATH. LCC REFER IPWEA-QNT STD. DRG. PCD-102 &101
- PROPOSED 100mm MEDIAN INFILL CONCRETE. REFER IPWEA-QNT STD. DRG. PCD-101
- FUTURE MEDIAN INFILL CONCRETE. REFER PAVEMENT SPECIFICATION DRG. No.C335
- PROPOSED TRAFFICABLE CONCRETE PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
- PROPOSED LANDSCAPED MEDIAN. REFER IPWEA-QNT RSD-801, LCC AND LANDSCAPE ARCHITECT.

LEGEND
- SITE BOUNDARY
- 12.0 DESIGN CONTOUR 1.0m MAJOR INTERVALS
- DESIGN CONTOUR MINOR 0.5m
- PROPOSED STORMWATER LINE
- PROP. STORMWATER INLET STRUCTURES. REFER DRG. No.C410
- 1/01 PROP. STORMWATER STRUCTURE LABEL
- PROP. ϕ1050 STORMWATER MANHOLE. REFER IPWEA-QNT STD DRG. DSD-101
- INTERNAL INDICATIVE LEVELS

LEGEND - EXISTING SURVEY
- 80 EXIST. SURVEY 0.5m CONTOUR INTERVAL
- SWD EXISTING STORMWATER DRAINAGE
- W EXISTING WATER
- EXISTING SEWER
- E EXISTING UNDERGROUND ELECTRICAL
- OE EXISTING OVERHEAD ELECTRICAL
- T EXISTING TELSTRA / COMMS

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

ARCHITECT

SCALE (A1 SHEET) 2 1 0 2 4 6 8 10 SCALE 1:200
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR
SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
5/M53 Metroplex Avenue, MURARRIE QLD 4172
Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
AReuland

R.P.E.Q No : 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering
Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
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Mail PO Box 614 BURLEIGH TOWN QLD 4220

FILENAME: C403-FE25032 - STORMWATER LAYOUT PLAN SHEET 3.DWG

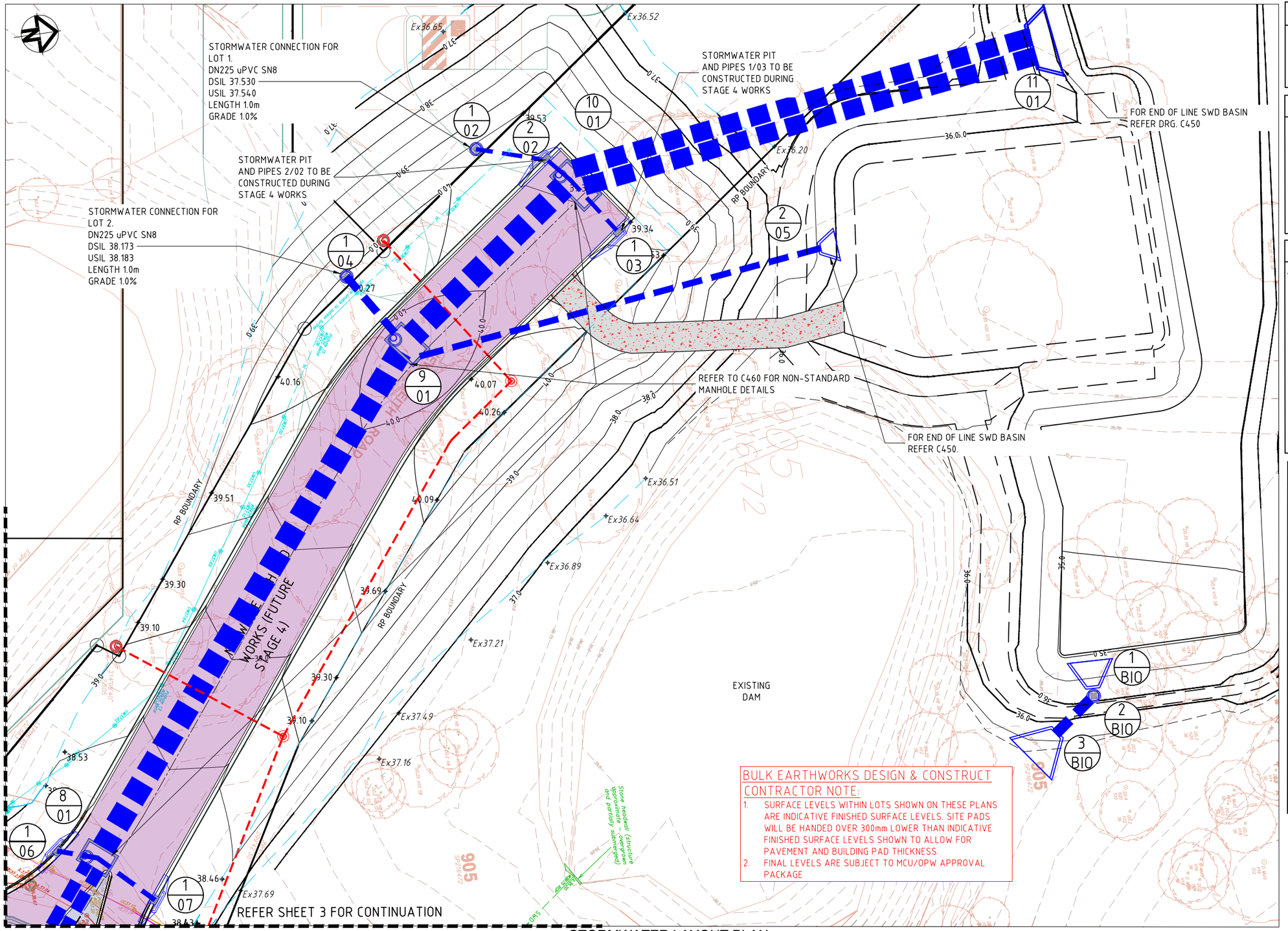
DRAWING TITLE: STORMWATER LAYOUT PLAN SHEET 3

PROJECT No.	DRAWING No.	ISSUE
FE25032	C403	01

100mm on A1 SIZE SHEET

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BULK EARTHWORKS DESIGN & CONSTRUCT CONTRACTOR NOTE:

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2. FINAL LEVELS ARE SUBJECT TO MCU/OPW APPROVAL PACKAGE

STORMWATER LAYOUT PLAN

SCALE 1:200

NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.

LEGEND - EXISTING SURVEY

- EXIST. SURVEY 0.5m CONTOUR INTERVAL
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER
- EXISTING SEWER
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING OVERHEAD ELECTRICAL
- EXISTING TELSTRA / COMMS

LEGEND

- SITE BOUNDARY
- DESIGN CONTOUR 1.0m MAJOR INTERVALS
- DESIGN CONTOUR MINOR 0.5m
- PROPOSED STORMWATER LINE
- PROP. STORMWATER INLET STRUCTURES. REFER DRG. No.C410
- PROP. STORMWATER STRUCTURE LABEL
- PROP. Φ1050 STORMWATER MANHOLE. REFER IPWEA-QNT STD DRG. DSD-101
- INTERNAL INDICATIVE LEVELS

PAVEMENT LEGEND

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- FUTURE AC ROAD PAVEMENT. REFER PAVEMENT SPECIFICATION DRG. No.C335.
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ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

2 1 0 2 4 6 8 10 SCALE 1:200

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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Email: info@srsurveys.com.au

CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No. 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering

Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
p. 0415 704 063 & 0422 024 440
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w. friendsengineer.com
Mail PO Box 614 BURLEIGH TOWN QLD 4220

FILENAME: C404-FE25032 - STORMWATER LAYOUT PLAN SHEET 4.DWG

DRAWING TITLE: STORMWATER LAYOUT PLAN SHEET 4

PROJECT No.	DRAWING No.	ISSUE
FE25032	C404	01

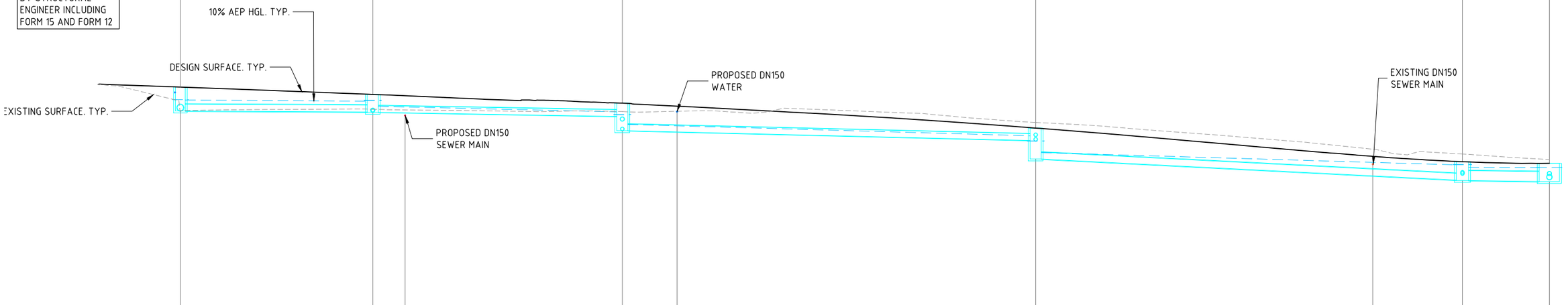
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STRUCTURE NAME	1/01	2/01	3/01	4/01	5/01	6/01
STRUCTURE DESCRIPTION	MANHOLE 1200mm DIA	MANHOLE 1350mm DIA	MANHOLE 1350mm DIA	MANHOLE 1350mm DIA	MANHOLE 1500mm DIA	NON-STANDARD MANHOLE 4m x 2m REFER C460 FOR DETAILS

ALL LIDS WITHIN TRAFFICABLE AREAS TO BE CLASS 'D' FOR VEHICLE LOADING.

ALL NON STANDARD PITS TO BE DESIGNED BY STRUCTURAL ENGINEER INCLUDING FORM 15 AND FORM 12



PIPE SIZE (mm)		825	825	825	825	1200
PIPE CLASS & TYPE		3	3	3	3	3
PIPE GRADE (%)		0.47%	1.67%	2.36%	4.94%	1.10%
PIPE SLOPE (1 in X)		215.0	59.9	42.4	20.2	91.1
FULL PIPE VELOCITY (m/s)		2.15	2.82	3.44	3.75	1.83
NORMAL DEPTH VELOCITY (m/s)		2.15	3.87	4.61	6.30	3.62
PIPE FLOW (cumecs)		1.150	1.509	1.839	2.003	2.067
CAPACITY FLOW (cumecs)		0.979	1.862	2.204	3.192	4.087
DATUM RL	-2.000					
HGL IN PIPE & WSE IN STRUCTURE	45.925 45.883	45.733 45.831 45.106	44.438 44.393 42.909	41.530 41.488 39.485	37.992 38.023 37.692	37.662 37.684
FINISHED (& EXISTING) SURFACE LEVEL	47.452 (44.571)	46.557 (44.760)	45.496 (44.472)	42.466 (43.151)	38.372 (39.308)	38.186 (38.643)
DEPTH OF INVERT BELOW FSL	2.912	2.126 2.178	1.624 3.359	1.510 3.764	2.236 2.286	2.215
INVERT LEVEL	44.540	44.431 44.379	43.873 42.138	41.993 41.538 CLR 150	40.954 38.700	36.652 36.140 CLR 0.45 36.136 36.087	35.971
CHAINAGE	0.000	23.389 23.389	27.320 44.322 102 150mm IL 43.91 CLR 0.21	53.719 60.366 WAT 150mm IL 44.38 CLR 150	103.962	144.938 X1 150mm IL 38.00 CLR 0.45 155.836	166.403
		23.389m	30.331m	50.243m	51.874m	10.567m	

LINE 01

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

10 0 10 20 1:500
SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No : 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering

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w. friendsengineer.com
Mail PO Box 614 BURLEIGH TOWN QLD 4220

FILENAME: C410-FE25032 - STORMWATER LONGSECTIONS SHEET 1.DWG

DRAWING TITLE:
STORMWATER LONGSECTIONS SHEET 1

PROJECT No.	DRAWING No.	ISSUE
FE25032	C410	01

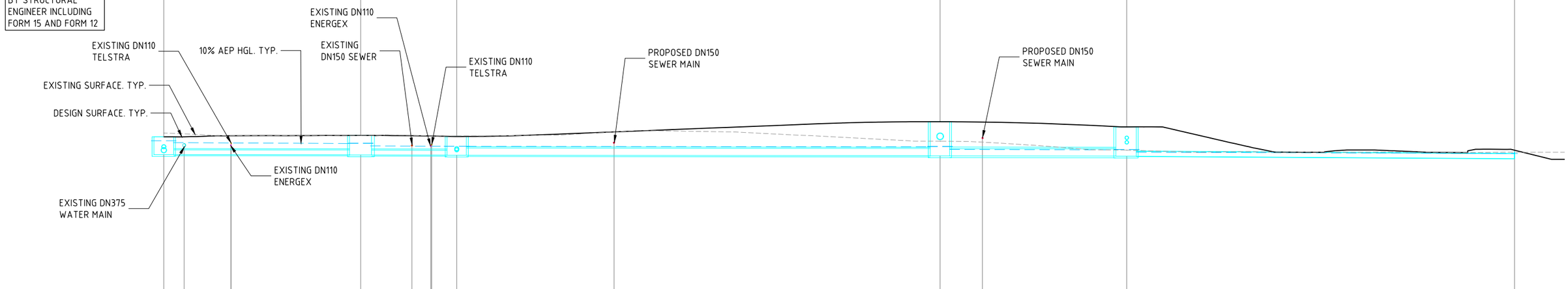
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STRUCTURE NAME	6/01				7/01			8/01				9/01			10/01			11/01
STRUCTURE DESCRIPTION	NON-STANDARD MANHOLE 4m x 2m REFER C460 FOR DETAILS				NON-STANDARD MANHOLE 4.5m x 2m REFER C460 FOR DETAILS			NON-STANDARD MANHOLE 4m x 2m REFER C460 FOR DETAILS				NON-STANDARD MANHOLE 3.5m x 2m REFER C460 FOR DETAILS			NON-STANDARD MANHOLE 5.175m x 2m REFER C460 FOR DETAILS			HEADWALL
PIPE SIZE (mm)	(2)1200x600				(2)1200x600			2400x900				2400x900			(2)1800x600			
PIPE CLASS & TYPE	BC				BC			BC				BC			BC			
PIPE GRADE (%)	0.10%				0.10%			0.10%				0.10%			0.61%			
PIPE SLOPE (1 in X)	1000.0				1000.0			1000.0				1000.0			164.9			
FULL PIPE VELOCITY (m/s)	1.74				1.73			1.19				1.73			1.79			
NORMAL DEPTH VELOCITY (m/s)	1.74				1.73			1.44				1.73			2.59			
PIPE FLOW (cumecs)	2.511				2.496			2.567				3.741			3.870			
CAPACITY FLOW (cumecs)	1.198				1.198			2.495				2.495			4.786			
DATUM RL	-5.000																	
HGL IN PIPE & WSE IN STRUCTURE	37.662 37.688	37.446			37.338 37.371	37.043		36.991 36.991	36.981			36.917 36.966	36.601		36.542 36.594	36.240		36.094
FINISHED (& EXISTING) SURFACE LEVEL	38.186	(38.643)			38.357			38.216	(38.296)			40.063	(37.628)		39.419	(36.505)		36.286 (36.251)
DEPTH OF INVERT BELOW FSL	2.215	2.235			2.431	2.451		2.322	2.342			4.250	4.270		3.649	3.669		1.044 1.044
INVERT LEVEL	35.971	35.951	35.949 EXWATER DN375 PH1 425mm IL 36.91	35.943 EXELEC DN110 PH1 110mm IL 37.05 CLR 0.86	35.926	35.906	35.899 X1 150mm IL 37.02 CLR 0.37	35.894	35.874	35.896 EXELEC DN110 PH2 110mm IL 37.00 CLR 0.36	35.855 104 150mm IL 37.37 CLR 0.45	35.813	35.793	35.789 100 150mm IL 37.96 CLR 1.06	35.770	35.750		35.456 35.456
CHAINAGE	166.403	168.944 EXWATER DN375 PH1 425mm IL 36.91	174.795 EXELEC DN110 PH1 110mm IL 37.05 CLR 0.86	174.808 EXCOMMS DN110 PH1 110mm IL 37.31 CLR 0.62	191.035	197.439 X1 150mm IL 37.02 CLR 0.37	199.807 EXELEC DN110 PH2 110mm IL 37.00 CLR 0.36	199.898 EXCOMMS DN110 PH1 110mm IL 37.15 CLR 0.48	203.041	222.715 104 150mm IL 37.37 CLR 0.45		263.504	268.800 100 150mm IL 37.96 CLR 1.06		286.852			335.360
	24.633m				12.005m			60.463m				23.348m			48.507m			

ALL LIDS WITHIN TRAFFICABLE AREAS TO BE CLASS 'D' FOR VEHICLE LOADING.

ALL NON STANDARD PITS TO BE DESIGNED BY STRUCTURAL ENGINEER INCLUDING FORM 15 AND FORM 12



LINE 01

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

10 0 10 20 1:500
SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE: COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No : 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering
Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
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FILENAME: C411-FE25032 - STORMWATER LONGSECTIONS SHEET 2.DWG

DRAWING TITLE: STORMWATER LONGSECTIONS SHEET 2

PROJECT No.	DRAWING No.	ISSUE
FE25032	C411	01

G:\Shared Drives\Projects 2025\FE25032 - 14-22 Wild Mint Drive, Flagstone\CAD\OPW\C411-FE25032 - STORMWATER LONGSECTIONS SHEET 2.dwg

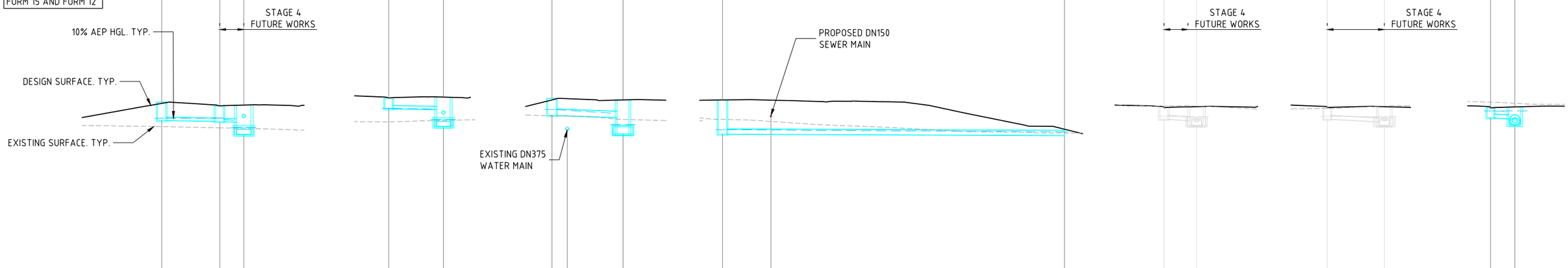
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STRUCTURE NAME	1/02	2/02	10/01	1/03	10/01	1/04	9/01
STRUCTURE DESCRIPTION	FIELD INLET 600x600 ON 1050 MANHOLE	STAGE 4 GULLY PIT IPWEA LIP IN LINE GULLY ON 1050 DIA MANHOLE 2.4m Lintel; B1 K&C	STAGE 1 TO BE BUILT WITHOUT LINTEL	IPWEA LIP IN LINE GULLY 2.4m Lintel; B1 K&C	NON-STANDARD MANHOLE 5.75m x 2m REFER C460 FOR DETAILS	FIELD INLET 600x600 ON 1050 MANHOLE	NON-STANDARD MANHOLE 5.75m x 2m REFER C460 FOR DETAILS
PIPE SIZE (mm)	375	375		375		750	
PIPE CLASS & TYPE	3	3		3		3	
PIPE GRADE (%)	1.56%	1.86%		1.24%		3.15%	
PIPE SLOPE (1 in X)	64.1	53.7		80.5		31.8	
FULL PIPE VELOCITY (m/s)	1.10	1.20		0.09		3.71	
NORMAL DEPTH VELOCITY (m/s)	2.04	2.22		0.94		5.00	
PIPE FLOW (cumecs)	0.122	0.133		0.010		1.637	
CAPACITY FLOW (cumecs)	0.219	0.239		0.196		1.976	
DATUM RL	-5.000			-6.000		-5.000	
HGL IN PIPE & WSE IN STRUCTURE	37.757	37.762 37.752	37.625	38.028	37.927 37.925	38.862	38.384 36.966
FINISHED (& EXISTING) SURFACE LEVEL	39.793 (36.714)	39.311 (36.561)	39.419 (36.505)	39.312 (36.314)	39.419 (36.505)	40.268 (38.077)	40.863 (37.628)
DEPTH OF INVERT BELOW FSL	2.132	1.925 1.955	2.119 3.669	1.358	1.551 3.669	1.924	2.200 4.270
INVERT LEVEL	37.500	37.386 37.356	37.300 35.750	37.953	37.868 35.750	38.143 38.089 EXWATER DN375 PHI 1.25mm IL 36.25	37.863 35.793
CHAINAGE	0.000	7.297	10.307	0.000	6.872	0.000 1.917	8.913
	7.297m	3.010m		6.872m		8.913m	
LINE	02			03		04	

STRUCTURE NAME	9/01	2/05	1/06	8/01	1/07	8/01	1/08	6/01
STRUCTURE DESCRIPTION	NON-STANDARD MANHOLE 5.75m x 2m REFER C460 FOR DETAILS	HEADWALL	IPWEA LIP IN LINE GULLY (SAG) 2.4m Lintel; B1 K&C	NON-STANDARD MANHOLE 4m x 2m REFER C460 FOR DETAILS	IPWEA LIP IN LINE GULLY (SAG) 2.4m Lintel; B1 K&C	NON-STANDARD MANHOLE 4m x 2m REFER C460 FOR DETAILS	IPWEA LIP IN LINE GULLY (SAG) 2.4m Lintel; B1 K&C	NON-STANDARD MANHOLE 4m x 2m REFER C460 FOR DETAILS
PIPE SIZE (mm)	600		450		450		450	
PIPE CLASS & TYPE	3		3		3		3	
PIPE GRADE (%)	0.40%		4.50%		4.64%		4.07%	
PIPE SLOPE (1 in X)	252.1		22.2		21.6		24.6	
FULL PIPE VELOCITY (m/s)	1.53		0.29		0.24		0.20	
NORMAL DEPTH VELOCITY (m/s)	1.53		2.24		2.14		1.94	
PIPE FLOW (cumecs)	0.434		0.046		0.038		0.032	
CAPACITY FLOW (cumecs)	0.387		0.605		0.614		0.575	
DATUM RL	-5.000		-6.000		-6.000		-6.000	
HGL IN PIPE & WSE IN STRUCTURE	36.328	36.055	37.030 36.989	36.991 36.994 36.981	37.018 36.990	36.991 36.994 36.981	37.678 37.662	37.662 37.684 37.446
FINISHED (& EXISTING) SURFACE LEVEL	40.863 (37.628)	36.423 (35.925)	38.095 (38.296)	38.216 (38.296)	38.092 (38.005)	38.216 (38.296)	38.066 (38.778)	38.186 (38.643)
DEPTH OF INVERT BELOW FSL	4.270	0.773 0.773	1.443	1.749 2.342	1.433	1.890 2.342	1.232	1.476 2.235
INVERT LEVEL	35.793	35.623 35.623	36.651	36.467 35.874	36.659	36.327 35.874	36.834	36.710 35.951
CHAINAGE	0.000 6.079 100 150mm IL 37.92 CLR 1.49 35.771	42.923	0.000	4.094	0.000	7.165	0.000	3.051
	42.923m		4.094m		7.165m		3.051m	
LINE	05		06		07		08	

ALL LIDS WITHIN TRAFFICABLE AREAS TO BE CLASS 'D' FOR VEHICLE LOADING.

ALL NON STANDARD PITS TO BE DESIGNED BY STRUCTURAL ENGINEER INCLUDING FORM 15 AND FORM 12



ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

10 0 10 20 1:500
SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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CLIENT:
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PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
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R.P.E.Q No : 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

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FILENAME: C412-FE25032 - STORMWATER LONGSECTIONS SHEET 3.DWG

DRAWING TITLE:
STORMWATER LONGSECTIONS SHEET 3

PROJECT No.	DRAWING No.	ISSUE
FE25032	C412	01

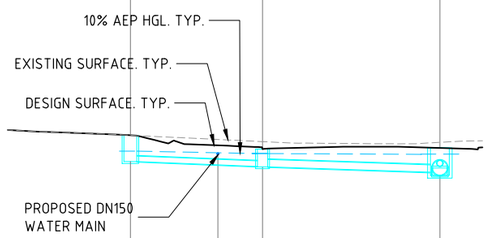
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STRUCTURE NAME	1/09	2/09	6/01	1/10	5/01	1/11	5/01	1/12	2/12	4/01	1/13	4/01	1/14	2/14	3/14
STRUCTURE DESCRIPTION	FIELD INLET 600x600 ON 1050 MANHOLE	IPWEA LIP IN LINE GULLY (SAG) 2.4m Lintel; B1 K&C	NON-STANDARD MANHOLE 4m x 2m REFER C440 FOR DETAILS	IPWEA LIP IN LINE GULLY 2.4m Lintel; B1 K&C	MANHOLE 1500mm DIA	IPWEA LIP IN LINE GULLY 2.4m Lintel; B1 K&C	MANHOLE 1500mm DIA	FIELD INLET 600x600 ON 1050 MANHOLE	IPWEA LIP IN LINE GULLY 2.4m Lintel; B1 K&C	MANHOLE 1350mm DIA	IPWEA LIP IN LINE GULLY 2.4m Lintel; B1 K&C	MANHOLE 1350mm DIA	IPWEA LIP IN LINE GULLY 2.4m Lintel; B1 K&C	MANHOLE 1050mm DIA	MANHOLE 1050mm DIA
PIPE SIZE (mm)		450	600		375		375		375	375		375		375	375
PIPE CLASS & TYPE		3	3		3		3		3	3		3		3	3
PIPE GRADE (%)		3.68%	3.05%		7.41%		1.38%		8.66%	1.00%		1.00%		1.00%	1.00%
PIPE SLOPE (1 in X)		27.2	32.8		13.5		72.3		11.5	100.0		100.0		100.0	100.0
FULL PIPE VELOCITY (m/s)		2.43	1.47		0.38		0.26		0.88	1.26		0.31		0.10	0.58
NORMAL DEPTH VELOCITY (m/s)		3.73	3.55		2.66		1.32		3.58	1.76		1.23		0.89	1.46
PIPE FLOW (cumecs)		0.386	0.415		0.042		0.029		0.097	0.139		0.034		0.011	0.064
CAPACITY FLOW (cumecs)		0.547	1.072		0.477		0.206		0.516	0.175		0.175		0.176	0.175
DATUM RL		-6.000			-6.000		-6.000		-1.000			-2.000		1.000	
HGL IN PIPE & WSE IN STRUCTURE		37.925	37.728 37.736 37.728		38.021 37.993		38.014 37.996		42.461 42.215	41.326 41.332 41.204		41.793 41.745		44.364 44.359	44.258 44.156 44.132
FINISHED (& EXISTING) SURFACE LEVEL	39.221		38.898 (38.702)		38.320 (39.409)		38.316 (39.212)		45.097 (43.337)	42.402 (43.203)		42.612 (43.125)		45.369 (46.086)	45.433 (45.691)
DEPTH OF INVERT BELOW FSL	2.147		1.420 1.450		1.420		1.209		3.110	1.443 1.473		1.000		1.084	1.239 2.991
INVERT LEVEL	37.074	36.806	36.678 36.648		36.900		37.107		41.986	40.959 40.929		41.612		44.285	44.194 42.442
CHAINAGE	-11.383	-4.248 WAT 150mm IL 37.63 CLR 0.31	-0.604		0.000		0.000		0.000	11.865		0.000		0.000	9.061
		10.779m	14.461m		2.025m		15.000m		11.865m	2.012m		15.283m		9.061m	10.204m
LINE		09			10		11		12			13		14	

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ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

10 0 10 20 SCALE 1:500

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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CLIENT: BLUEPOINT PROPERTY

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CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

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AR Rayner

R.P.E.Q No : 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

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FILENAME: C413-FE25032 - STORMWATER LONGSECTIONS SHEET 4.DWG

DRAWING TITLE: STORMWATER LONGSECTIONS SHEET 4

PROJECT No.	DRAWING No.	ISSUE
FE25032	C413	01

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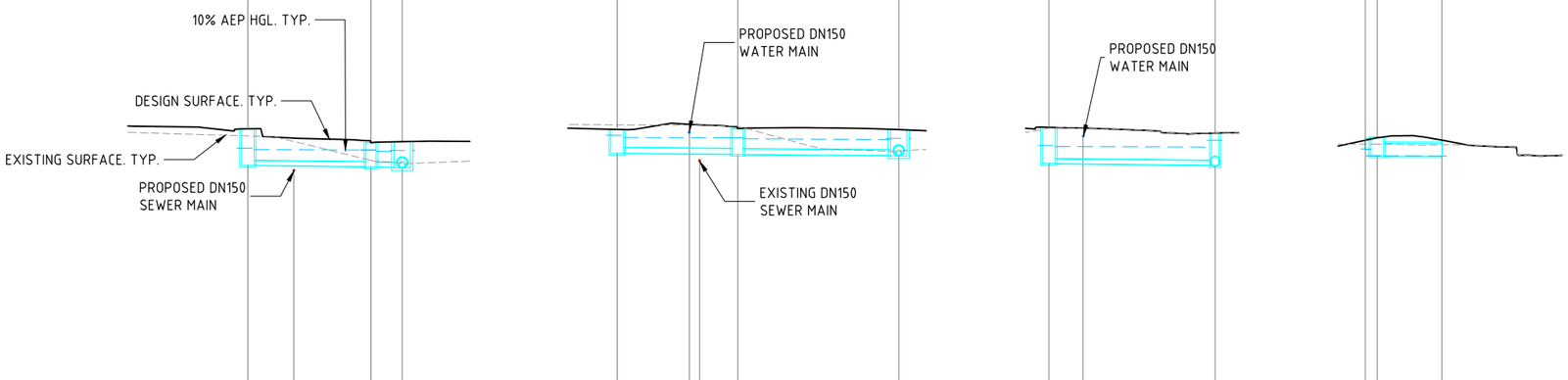
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STRUCTURE NAME	1/20	2/20	2/01	1/21	2/21	2/01	1/22	1/EX01	1/BIO	2/BIO	3/BIO
STRUCTURE DESCRIPTION	FIELD INLET 600x600 ON 1050 MANHOLE	IPWEA LIP IN LINE GULLY ON 1050 DIA. MANHOLE 2.4m Lintel, B1 K&C	MANHOLE 1350mm DIA	FIELD INLET 600x600 ON 1050 MANHOLE	IPWEA LIP IN LINE GULLY ON 1050 DIA. MANHOLE 2.4m Lintel, B1 K&C	MANHOLE 1350mm DIA	FIELD INLET 600x600 ON 1050 MANHOLE	EXISTING STRUCTURE	HEADWALL	FIELD INLET 600x600 ON 1050 MANHOLE	HEADWALL
PIPE SIZE (mm)		375	375		450	450		375		825	1050
PIPE CLASS & TYPE		3	3		3	3		3		3	3
PIPE GRADE (%)		1.00%	1.00%		0.77%	0.66%		1.03%		0.00%	0.28%
PIPE SLOPE (1 in X)		100.4	100.1		130.6	150.5		96.6		1000000.0	359.7
FULL PIPE VELOCITY (m/s)		0.96	1.42		1.04	1.30		0.87		0.00	0.00
NORMAL DEPTH VELOCITY (m/s)		1.66	1.79		1.68	1.65		1.65		0.00	0.00
PIPE FLOW (cumecs)		0.105	0.157		0.166	0.207		0.096		0.000	0.000
CAPACITY FLOW (cumecs)		0.175	0.175		0.250	0.233		0.178		0.000	1.440
DATUM RL	3.000			2.000			4.000		-8.000		
HGL IN PIPE & WSE IN STRUCTURE	46.015 45.894	45.857 45.754	45.733 45.831 45.106	46.100 45.909	45.875 45.877 45.803	45.733 45.831 45.106	47.244 47.149	47.107 47.666 46.698	34.945	34.945 34.375	34.360
FINISHED (& EXISTING) SURFACE LEVEL	47.624 (47.037)	46.480 (45.001)	46.557 (44.760)	46.575 (46.948)	46.650 (46.84.0)	46.557 (44.760)	48.753 (48.668)	48.268	35.770 (35.355)	35.945 (35.358)	35.560 (35.304)
DEPTH OF INVERT BELOW FSL	3.024	1.982 2.012	2.116 2.178	1.975	2.127 2.152	2.148 2.178	3.008	2.666 2.716	0.727	0.937 1.508	1.325 1.325
INVERT LEVEL	44.600	44.498 44.468	44.442 44.379	44.600	44.523 44.498	44.409 44.379	45.745 45.719	45.602 45.552	34.945	34.945 34.375	34.360 34.360
CHAINAGE	0.000 3.820 102 150mm IL 44.09 CLR 0.27	10.248	12.852	0.000 6.011 WAT 150mm IL 46.25 CLR 1.19 6.868 X1 150mm IL 43.91 CLR 0.44	10.043	23.451	0.000 2.843 WAT 150mm IL 47.95 CLR 1.79	13.839	-2.619	-1.623	3.773
	10.248m	2.604m		10.043m	13.408m		13.839m		0.996m	5.396m	
LINE	20			21			22		BIO		

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ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

10 0 10 20 1:500 SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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CLIENT:
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PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
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AR

R.P.E.Q No : 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

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FILENAME: C415-FE25032 - STORMWATER LONGSECTIONS SHEET 6.DWG

DRAWING TITLE:
STORMWATER LONGSECTIONS SHEET 6

PROJECT No.	DRAWING No.	ISSUE
FE25032	C415	01

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LOCATION		SUB-CATCHMENT RUNOFF					INLET DESIGN												DRAIN DESIGN																		PART FULL		DESIGN LEVELS						
		Tc	I	A	CA	Qc	Qa									Qg	Qb		Tc	I	CA	Qrat	Q	L	S			Vf=Q/A	Qcap	Vcap	Vt		Vf^2/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn					
STRUCTURE No.	DRAIN SECTION	SUB-CATCHMENT TIME OF CONC.	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)	HALF ROAD CAPACITY	FLOW WIDTH	FLOW DEPTH	FLOW DxV	ROAD GRADE AT INLET	ROAD XFALL AT INLET	INLET TYPE	INLET CURVE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	PEAK FLOW	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	PIPE CLASS	FULL PIPE VELOCITY	CAPACITY FLOW	CAPACITY VELOCITY	TRAVEL VELOCITY	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL.	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	WATER SURFACE ELEVATION	GRATE LEVEL	STRUCTURE No.
		min	mm/h	ha	ha	L/s	L/s	L/s	m	m	m^2/s	%	%			L/s	L/s		min	mm/hr	ha	L/s	L/s	m	%	mm		m/s	L/s	m/s	m/s		m		m		m		m	m	m/s	m	m	m	m	m	m	
1/01	1/01 to 2/01											3.52	2.50	MH1200					5.31	181	0.190	1150	1150	23.389	0.47	825	3	2.15	979	1.83	1.83	T1/T3	0.236	0.14	0.033	0.18	0.042	0.64	0.150	0.825	2.15	44.540	44.431	45.883	45.733	45.925	47.452	1/01
2/01	2/01 to 3/01											3.77	2.50	MH1350					5.53	180	0.930	1520	1509	30.331	1.67	825	3	2.82	1862	3.48	3.51	T1/T3	0.407	1.54	0.627	1.78	0.725	2.20	0.373	0.565	3.87	44.379	43.873	45.106	44.438	45.831	46.557	2/01
3/01	3/01 to 4/01											2.82	3.07	MH1350					5.67	179	1.294	1840	1839	50.243	2.36	825	3	3.44	2204	4.12	4.12	T10	0.604	1.83	1.108	1.98	1.194	2.74	0.932	0.576	4.61	42.138	40.954	42.909	41.530	44.103	45.496	3/01
4/01	4/01 to 5/01											7.76	2.50	MH1350					5.87	178	1.649	2011	2003	51.874	4.94	825	3	3.75	3192	5.97	5.97	T10	0.716	1.77	1.270	1.96	1.404	2.88	1.519	0.474	6.30	38.700	36.136	39.485	37.992	40.889	42.464	4/01
5/01	5/01 to 6/01											3.73	2.61	MH1500					5.76	178	1.771	2075	2067	10.567	1.10	1200	3	1.83	4087	3.61	3.61	T3/T6	0.170	1.76	0.301	1.94	0.331	0.28	0.030	0.604	3.62	36.087	35.971	37.692	37.662	38.023	38.372	5/01
6/01	6/01 to 7/01											0.61	2.97	MH1500E 900					5.81	178	1.875	2511	2511	24.633	0.10	(2x)1200x 600	BC	1.74	1198	0.83	0.83	T3/T6	0.155	1.39	0.215	1.53	0.238	0.44	0.108	0.600	1.74	35.951	35.926	37.446	37.338	37.684	38.186	6/01
7/01	7/01 to 8/01											1.44	1.22	MH1500E 900					6.30	175	1.875	2496	2496	12.005	0.10	(2x)1200x 600	BC	1.73	1198	0.83	0.83	T6/T9	0.153	1.93	0.296	2.14	0.328	0.43	0.052	0.600	1.73	35.906	35.894	37.043	36.991	37.371	38.357	7/01
8/01	8/01 to 9/01											0.78	2.52	MH1500E 900					6.54	174	2.039	2567	2567	60.463	0.10	2400x900	BC	1.19	2495	1.16	1.16	T1/T3	0.072	0.13	0.010	0.18	0.013	0.11	0.064	0.740	1.44	35.874	35.813	36.981	36.917	36.994	38.216	8/01
9/01	9/01 to 10/01											1.00	2.50	MH1500E 900					7.41	169	2.039	3741	3741	23.348	0.10	2400x900	BC	1.73	2495	1.16	1.16	T3/T6	0.153	2.06	0.316	2.39	0.365	0.26	0.041	0.900	1.73	35.793	35.770	36.601	36.542	36.966	40.063	9/01
10/01	10/01 to 11/01											1.00	2.50	MH1500E 900					7.75	166	2.085	3872	3870	48.507	0.61	(2x)1800x 600	BC	1.79	4786	2.22	2.22	T3/T6	0.164	1.84	0.301	2.16	0.354	0.30	0.228	0.415	2.59	35.750	35.456	36.240	36.094	36.594	39.419	10/01
11/01												1.00	3.00	HW OUT																															36.094	36.286	11/01
1/02	1/02 to 2/02	0.00	0	0.000	0.000	0	0					1.00	3.00	SAG FI RECT 600x600 ON 1050 MANHOLE		0	0		5.00	183	0.000	122	122	7.297	1.56	375	3	1.10	219	1.98	1.98		0.062	0.00	0.000		0.000	-0.06	0.049	0.200	2.04	37.500	37.386	37.757	37.762	37.757	39.793	1/02
2/02	2/02 to 10/01	5.00	183	0.026	0.023	12	12	175	0.513	0.033	0.046	1.00	2.50	IPWEA BKC 2.4m LINTEL	1G,2.5X	11	1	LOST	5.00	183	0.023	134	133	3.010	1.86	375	3	1.20	239	2.17	2.17	T3/T6	0.073	1.87	0.137	2.28	0.167	4.16	0.000	0.199	2.22	37.356	37.300	37.625	37.499	37.792	39.311	2/02
10/01												1.00	2.50	MH1500E 900																	T3/T6		1.84	0.301	2.16	0.354									36.594	39.419	10/01
1/03	1/03 to 10/01	5.00	183	0.025	0.023	12	12	912	0.526	0.037	0.044	1.00	2.50	IPWEA BKC 2.4m LINTEL	1G,2.5X	10	1	LOST	5.00	183	0.023	12	10	6.872	1.24	375	3	0.09	196	1.77	1.81	G1	0.000	7.00	0.003		0.003	1.43	0.079	0.059	0.94	37.953	37.868	38.025	37.927	38.028	39.312	1/03
10/01												1.00	2.50	MH1500E 900																	T3/T6		1.84	0.301	2.16	0.354									36.594	39.419	10/01
1/04	1/04 to 9/01	0.00	0	0.000	0.000	0	0					1.00	3.00	SAG FI RECT 600x600 ON 1050 MANHOLE		0	0		5.00	183	0.000	1637	1637	8.913	3.15	750	3	3.71	1976	4.47	3.27		0.701	0.00	0.000		0.000	5.36	0.000	0.521	5.00	38.143	37.863	38.862	38.384	38.862	40.268	1/04
9/01												1.00	2.50	MH1500E 900																	T3/T6		2.06	0.316	2.39	0.365									36.966	40.063	9/01
1/05	1/05 to 2/05											1.00	2.50	MH1050					5.00	183	0.000	434	434	42.923	0.40	600	3	1.53	387	1.37	1.37		0.120	0.00	0.000		0.000	0.64	0.206	0.600	1.53	35.793	35.623	36.328	36.055	36.328	40.063	1/05
2/05												1.00	3.00	HW OUT																															36.055	36.423	2/05
1/06	1/06 to 8/01	5.00	183	0.100	0.090	46	46	243		0.027		0.30	3.51	IPWEA BKC SAG 2.4m LINTEL	SAG	46	0	1/07	5.00	183	0.090	46	46	4.094	4.50	450	3	0.29	605	3.81	3.81	G2	0.004	9.70	0.041		0.041	-0.04	0.001	0.084	2.24	36.651	36.467	36.989	36.991	37.030	38.095	1/06
8/01												0.78	2.52	MH1500E 900																	T1/T3		0.13	0.010	0.18	0.013									36.994	38.216	8/01
1/07	1/07 to 8/01	5.00	183	0.083	0.074	38	38	310		0.023		0.38	2.59	IPWEA BKC SAG 2.4m LINTEL	SAG	38	0	LOST	5.00	183	0.074	38	38	7.165	4.64	450	3	0.24	614	3.86	3.86	G2	0.003	9.70	0.028		0.028	-0.01	0.001	0.076	2.14	36.659	36.327	36.990	36.991	37.018	38.092	1/07
8/01												0.78	2.52	MH1500E 900																	T1/T3		0.13	0.010	0.18	0.013									36.994	38.216	8/01
1/08	1/08 to 6/01	5.00	183	0.059	0.053	27	32	300		0.019		89.31	2.92	IPWEA BKC SAG 2.4m LINTEL	SAG	32	0	1/06	5.00	183	0.053	27	32	3.051	4.07	450	3	0.20	575	3.62	3.62	G2	0.002	7.68	0.015		0.015	0.01	0.000	0.072	1.94	36.834	36.710	37.662	37.662	37.678	38.066	1/08
6/01												0.61	2.97	MH1500E 900																	T3/T6		1.39	0.215	1.53	0.238									37.684	38.186	6/01

10% AEP CALCULATIONS

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
5/M53 Metroplex Avenue, MURARRIE QLD 4172
Telephone (07) 3899 8105 Fax. (07) 3899 8107
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CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No: 24572

		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering

Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
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FILENAME: C420-FE25032 - STORMWATER CALCULATIONS SHEET 1.DWG

DRAWING TITLE:
STORMWATER CALCULATIONS SHEET 1

PROJECT No.	DRAWING No.	ISSUE
FE25032	C420	01

G:\Shared Drives\Projects 2025\FE25032 - 14-22 Wild Mint Drive, Flagstone\CAD\OPW\C420-FE25032 - STORMWATER CALCULATIONS SHEET 1.dwg

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LOCATION		SUB-CATCHMENT RUNOFF					INLET DESIGN												DRAIN DESIGN											HEAD LOSSES							PART FULL		DESIGN LEVELS					
		Tc	I	A	CA	Qc	Qa									Qg	Qb		Tc	I	CA	Qrat	Q	L	S			Vf=Q/A	Qcap	Vcap	Vt		Vf^2/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn					
STRUCTURE No.	DRAINSECTION	SUB-CATCHMENT TIME OF CONC.	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)	HALF ROAD CAPACITY	FLOW WIDTH	FLOW DEPTH	FLOW DxV	ROAD GRADE AT INLET	ROAD XFALL AT INLET	INLET TYPE	INLET CURVE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	PEAK FLOW	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	PIPE CLASS	FULL PIPE VELOCITY	CAPACITY FLOW	CAPACITY VELOCITY	TRAVEL VELOCITY	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL.	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	WATER SURFACE ELEVATION	GRATE LEVEL	STRUCTURE No.
		min	mm/h	ha	ha	L/s	L/s	L/s	m	m	m^2/s	%	%			L/s	L/s		min	mm/hr	ha	L/s	L/s	m	%	mm		m/s	L/s	m/s	m/s		m		m		m	%	m	m	m/s	m	m	m	m	m	m	
1/09	1/09 to 2/09											1.00	3.00	SAG FI RECT 600x600 ON 1050 MANHOLE					5.00	183	0.000	386	386	10.779	3.68	450	3	2.43	547	3.44	3.44		0.301	0.00	0.000		0.000	1.83	0.197	0.279	3.73	37.074	36.678	37.925	37.728	37.925	39.221	1/09
2/09	2/09 to 6/01	5.00	183	0.057	0.051	26	29	148		0.017		0.50	2.52	IPWEA BKC SAG 2.4m LINTEL	SAG	29	0	1/08	5.00	183	0.051	412	415	14.461	3.05	600	3	1.47	1072	3.79	3.79	T1/T3	0.110	0.00	0.000	0.07	0.008	0.46	0.066	0.259	3.55	36.648	36.207	37.728	37.662	37.736	38.098	2/09
6/01												0.61	2.97	MH1500E 900																	T3/T6		1.39	0.215	1.53	0.238									37.684	38.186	6/01
1/10	1/10 to 5/01	5.00	183	0.091	0.082	42	46	1411	1.606	0.068	0.082	4.11	2.61	IPWEA BKC 2.4m LINTEL	4G,2.5X	42	5	1/08	5.00	183	0.082	42	42	2.025	7.41	375	3	0.38	477	4.32	4.32	G2	0.007	3.82	0.028		0.028	0.06	0.001	0.075	2.66	36.900	36.750	37.993	37.992	38.021	38.320	1/10
5/01												3.73	2.61	MH1500																	T3/T6		1.76	0.301	1.94	0.331									38.023	38.372	5/01
1/11	1/11 to 5/01	5.00	183	0.062	0.056	28	32	1431	1.124	0.058	0.080	6.73	2.35	IPWEA BKC 2.4m LINTEL	8G,2.5X	29	3	2/09	5.00	183	0.056	28	29	15.000	1.38	375	3	0.26	206	1.87	1.87	G2	0.003	5.24	0.018		0.018	0.03	0.004	0.095	1.32	37.107	36.900	37.996	37.992	38.014	38.316	1/11
5/01												3.73	2.61	MH1500																	T3/T6		1.76	0.301	1.94	0.331									38.023	38.372	5/01
1/12	1/12 to 2/12	5.00	183	0.212	0.190	97	97					1.00	3.00	SAG FI RECT 600x600 ON 1050 MANHOLE		97	0		5.00	183	0.190	97	97	11.865	8.66	375	3	0.88	516	4.67	4.67	G1	0.039	6.31	0.247		0.247	7.49	0.945	0.110	3.58	41.986	40.959	42.215	41.326	42.461	45.097	1/12
2/12	2/12 to 4/01	5.00	183	0.101	0.090	46	47	1382	1.343	0.062	0.101	7.76	2.50	IPWEA BKC 2.4m LINTEL	8G,2.5X	42	5	1/10	5.04	183	0.280	142	139	2.012	1.00	375	3	1.26	175	1.59	1.59	T1/T3	0.081	1.51	0.122	1.59	0.128	2.14	0.016	0.252	1.76	40.929	40.909	41.204	41.161	41.332	42.402	2/12
4/01												7.76	2.50	MH1350																	T10		1.77	1.270	1.96	1.404									40.889	42.464	4/01
1/13	1/13 to 4/01	5.00	183	0.084	0.075	38	38	1795	1.227	0.059	0.090	7.33	2.50	IPWEA BKC 2.4m LINTEL	8G,2.5X	34	4	1/11	5.00	183	0.075	38	34	15.283	1.00	375	3	0.31	175	1.59	1.59	G2	0.005	9.70	0.048		0.048	1.13	0.145	0.113	1.23	41.612	41.459	41.745	41.572	41.793	42.612	1/13
4/01												7.76	2.50	MH1350																	T10		1.77	1.270	1.96	1.404									40.889	42.464	4/01
1/14	1/14 to 2/14	5.00	183	0.027	0.024	12	12	573	1.018	0.054	0.034	1.41	2.50	IPWEA BKC 2.4m LINTEL	1G,2.5X	11	1	1/17	5.00	183	0.024	12	11	9.061	1.00	375	3	0.10	176	1.59	1.18	G2	0.001	9.70	0.005		0.005	1.12	0.087	0.064	0.89	44.285	44.194	44.359	44.258	44.364	45.369	1/14
2/14	2/14 to 3/14											1.41	2.50	MH1050					6.03	177	0.134	66	64	10.204	1.00	375	3	0.58	175	1.59	1.59	T3/T6	0.017	1.24	0.021	1.35	0.023	0.13	0.014	0.157	1.46	42.442	42.340	44.132	44.118	44.156	45.433	2/14
3/14	3/14 to 3/01											0.81	2.49	MH1050					6.14	176	0.198	97	101	14.188	1.00	375	3	0.92	175	1.59	1.59	T3/T6	0.043	1.26	0.054	1.37	0.059	0.33	0.047	0.205	1.65	42.310	42.168	44.064	44.017	44.123	45.331	3/14
3/01												2.82	3.07	MH1350																	T10		1.83	1.108	1.98	1.194									44.103	45.496	3/01
1/15	1/15 to 3/14	5.00	183	0.072	0.065	33	39	327		0.023		0.75	2.89	IPWEA BKC SAG 2.4m LINTEL	SAG	39	0	2/12	5.00	183	0.065	33	39	11.968	1.00	375	3	0.35	175	1.59	1.77	G2	0.006	9.70	0.061		0.061	1.18	0.111	0.120	1.27	44.160	44.041	44.302	44.160	44.362	45.244	1/15
3/14												0.81	2.49	MH1050																	T3/T6		1.26	0.054	1.37	0.059									44.123	45.331	3/14
1/16	1/16 to 3/18	5.00	183	0.010	0.009	4	4	910	0.441	0.038	0.020	1.24	3.90	SAG FI RECT 900x600	BUND 150mm	4	0	1/13	5.00	183	0.009	4	4	1.712	1.96	375	3	0.04	245	2.22	2.22	G2	0.000	9.70	0.001		0.001	0.00	0.000	0.035	0.85	43.833	43.800	44.363	44.363	44.364	45.167	1/16
3/18												3.78	3.54	MH1200																	T1/T3		1.24	0.137	1.48	0.163									44.389	45.268	3/18
1/17	1/17 to 2/14	5.00	183	0.026	0.023	12	13	573	1.057	0.055	0.035	1.41	2.50	IPWEA BKC 2.4m LINTEL	1G,2.5X	12	1	2/12	5.00	183	0.023	12	12	2.146	1.00	375	3	0.11	175	1.59	0.06	G2	0.001	9.70	0.006		0.006	1.51	0.018	0.066	0.90	44.328	44.307	44.405	44.373	44.411	45.365	1/17
2/14												1.41	2.50	MH1050																	T3/T6		1.24	0.021	1.35	0.023									44.156	45.433	2/14
1/18	1/18 to 2/18											6.07	-2.50	MH1050					5.00	183	0.000	142	142	5.987	1.00	450	3	0.89	285	1.79	1.79		0.041	0.00	0.000		0.000	0.25	0.015	0.224	1.79	43.948	43.888	44.596	44.581	44.596	45.871	1/18
2/18	2/18 to 3/18	5.00	183	0.132	0.118	60	60	22	1.978	0.022	0.068	6.07	3.00	SAG FI SQR 900x900	BUND 150mm	60	0	1/19	5.00	183	0.118	202	202	14.496	1.00	450	3	1.27	285	1.79	1.79	T3/T6	0.082	1.77	0.146	2.20	0.181	0.50	0.073	0.280	1.94	43.858	43.713	44.436	44.363	44.617	45.584	2/18
3/18	3/18 to 3/01											3.78	3.54	MH1200					5.13	182	0.171	229	233	31.308	1.10	450	3	1.47	300	1.88	1.88	T1/T3	0.110	1.24	0.137	1.48	0.163	0.67	0.210	0.299	2.08	43.683	43.338	44.226	44.017	44.389	45.268	3/18
3/01												2.82	3.07	MH1350																	T10		1.83	1.108	1.98	1.194									44.103	45.496	3/01

10% AEP CALCULATIONS

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
5/M53 Metroplex Avenue, MURARRIE QLD 4172
Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No. 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering

Friends Civil Engineering Pty Ltd
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FILENAME: C421-FE25032 - STORMWATER CALCULATIONS SHEET 2.DWG

DRAWING TITLE:
STORMWATER CALCULATIONS SHEET 2

PROJECT No.	DRAWING No.	ISSUE
FE25032	C421	01

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LOCATION		SUB-CATCHMENT RUNOFF					INLET DESIGN												DRAIN DESIGN											HEAD LOSSES								PART FULL		DESIGN LEVELS						
		Tc	I	A	CA	Qc	Qa									Qg	Qb		Tc	I	CA	Qrat	Q	L	S			Vf=Q/A	Qcap	Vcap	Vt		Vf^2/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn						
STRUCTURE No.	DRAINSECTION	SUB-CATCHMENT TIME OF CONC.	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)	HALF ROAD CAPACITY	FLOW WIDTH	FLOW DEPTH	FLOW DxV	ROAD GRADE AT INLET	ROAD XFALL AT INLET	INLET TYPE	INLET CURVE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	PEAK FLOW	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	PIPE CLASS	FULL PIPE VELOCITY	CAPACITY FLOW	CAPACITY VELOCITY	TRAVEL VELOCITY	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL.	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	WATER SURFACE ELEVATION	GRATE LEVEL	STRUCTURE No.
		min	mm/h	ha	ha	L/s	L/s	L/s	m	m	m^2/s	%	%			L/s	L/s		min	mm/hr	ha	L/s	L/s	m	%	mm		m/s	L/s	m/s	m/s		m		m		m	%	m	m	m/s	m	m	m	m	m	m	
1/19	1/19 to 3/18	5.00	183	0.050	0.045	23	27	28		0.049		0.44	2.50	SAG FI RECT 900x600	SAG	27	0	1/16	5.00	183	0.045	23	27	7.560	4.58	375	3	0.25	375	3.40	3.40	G2	0.003	9.70	0.030		0.030	0.01	0.001	0.069	1.98	44.059	43.713	44.363	44.363	44.394	45.231	1/19
3/18												3.78	3.54	MH1200																		T1/T3		1.24	0.137	1.48	0.163									44.389	45.268	3/18
1/20	1/20 to 2/20	5.00	183	0.232	0.208	105	105					1.00	3.00	SAG FI RECT 600x600 ON 1050 MANHOLE		105	0		5.00	183	0.208	105	105	10.248	1.00	375	3	0.96	175	1.59	1.59	G1	0.047	2.61	0.121		0.121	0.36	0.037	0.210	1.66	44.600	44.498	45.894	45.857	46.015	47.624	1/20
2/20	2/20 to 2/01	5.00	183	0.128	0.114	58	58	698	1.777	0.072	0.092	3.77	2.50	IPWEA BKC 4.8m LINTEL	4G,2.5X	52	6	1/15	5.11	182	0.322	163	157	2.604	1.00	375	3	1.42	175	1.59	1.59	T1	0.103	1.00	0.103		0.104	0.80	0.021	0.277	1.79	44.468	44.442	45.754	45.733	45.857	46.480	2/20
2/01												3.77	2.50	MH1350																		T1/T3		1.54	0.627	1.78	0.725									45.831	46.557	2/01
1/21	1/21 to 2/21	5.00	183	0.419	0.375	191	191	4045	2.928	0.052	0.077	3.80	3.00	SAG FI RECT 600x600 ON 1050 MANHOLE	BUND 150mm	166	25	2/21	5.00	183	0.375	191	166	10.043	0.77	450	3	1.04	250	1.57	1.57	G2	0.056	3.44	0.191		0.191	0.34	0.034	0.268	1.68	44.600	44.523	45.909	45.875	46.100	46.575	1/21
2/21	2/21 to 2/01	5.00	183	0.048	0.043	22	47	2596	0.480	0.033	0.195	3.90	2.49	IPWEA BKC 2.4m LINTEL	4G,2.5X	42	5	1/19	5.11	182	0.419	212	207	13.408	0.66	450	3	1.30	233	1.46	1.46	T1/T3	0.087	0.82	0.072	0.85	0.074	0.53	0.071	0.331	1.65	44.498	44.409	45.803	45.733	45.877	46.650	2/21
2/01												3.77	2.50	MH1350																		T1/T3		1.54	0.627	1.78	0.725									45.831	46.557	2/01
1/22	1/22 to 2/EX01	5.00	183	0.212	0.190	96	96					1.00	3.00	SAG FI RECT 600x600 ON 1050 MANHOLE		96	0		5.00	183	0.190	96	96	13.839	1.03	375	3	0.87	178	1.62	1.62	G1	0.039	2.45	0.095		0.095	0.30	0.042	0.196	1.65	45.745	45.602	47.149	47.107	47.244	48.753	1/22
1/EX01												1.00	2.51	SEW MS G V DROP D COVER																		T10		1.18	0.410	2.80	0.968									47.666	48.268	1/EX01
1/BIO	1/BIO to 2/BIO	0.00	0	0.000	0.000	0	0					1.00	3.00	HW IN		0	0		5.00	183	0.000	0	0	0.996	0.00	825	3	0.00	0	0.00	2.00		0.000	2.00	0.000		0.000	0.00	0.000	0.000	0.00	34.945	34.945	34.945	34.945	34.945	35.770	1/BIO
2/BIO	2/BIO to 3/BIO	0.00	0	0.000	0.000	0	0					1.00	3.00	SAG FI RECT 600x600 ON 1050 MANHOLE		0	0		5.01	183	0.000	0	0	5.396	0.28	1050	3	0.00	1440	1.66	1.66		0.000	0.00	0.000		0.000	0.28	0.015	0.000	0.00	34.375	34.360	34.375	34.360	34.375	35.945	2/BIO
3/BIO												1.00	3.00	HW OUT																																34.360	35.560	3/BIO
1/EX01	1/EX01 to 2/EX01											1.00	2.51	SEW MS G V DROP D COVER					5.14	182	0.190	1151	1151	13.235	1.00	750	3	2.61	1114	2.52	2.52	T10	0.346	1.18	0.410	2.80	0.968	1.07	0.141	0.640	2.86	45.552	45.419	46.698	46.556	47.666	48.268	1/EX01
2/EX01	2/EX01 to 1/01											3.50	3.18	MH1050					5.23	182	0.190	1151	1151	14.421	1.27	750	3	2.60	1255	2.84	2.84	T3/T6	0.346	1.41	0.487	1.58	0.546	1.07	0.154	0.566	3.22	44.753	44.570	46.069	45.916	46.616	47.931	2/EX01
1/01												3.52	2.50	MH1200																		T1/T3		0.14	0.033	0.18	0.042									45.925	47.452	1/01
1/INT01	1/INT01 to 2/INT01	5.00	183	0.045	0.041	21	21	666	0.543	0.068	0.076	2.00	3.00	SAG FI RECT 900x600		21	0		5.00	183	0.041	21	21	53.180	0.80	375	3	0.19	157	1.42	1.42	G1	0.002	3.57	0.006		0.006	0.01	0.007	0.092	0.98	43.206	42.780	44.193	44.185	44.199	44.298	1/INT01
2/INT01	2/INT01 to 2/14	5.00	183	0.051	0.045	23	23	749	0.525	0.066	0.088	3.00	3.00	SAG FI RECT 900x600	BUND 150mm	23	0	1/INT01	5.62	179	0.086	43	43	34.799	0.80	375	3	0.39	157	1.42	1.42	T10	0.008	1.45	0.011	1.73	0.013	0.06	0.021	0.134	1.21	42.750	42.472	44.174	44.154	44.188	45.744	2/INT01
2/14												1.41	2.50	MH1050																		T3/T6		1.24	0.021	1.35	0.023									44.156	45.433	2/14
1/INT02	1/INT02 to 2/INT01	5.00	183	0.026	0.024	12	12	5772	0.414	0.052	0.058	2.48	3.00	SAG FI RECT 900x600	BUND 150mm	12	0	2/INT01	5.00	183	0.024	12	12	63.346	2.51	375	3	0.11	278	2.52	0.09	G1	0.001	7.00	0.004		0.004	2.55	1.564	0.053	1.26	46.217	44.624	46.294	44.677	46.298	47.336	1/INT02
2/INT01		5.00	183	0.051	0.045	23	23	749	0.525	0.066	0.088	3.00	3.00	SAG FI RECT 900x600	BUND 150mm	23	0	1/INT01														T10		1.45	0.011	1.73	0.013									44.188	45.744	2/INT01

10% AEP CALCULATIONS

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

ARCHITECT

SCALE (A1 SHEET)

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No :24572

HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

PROJECT TEAM

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FILENAME: C422-FE25032 - STORMWATER CALCULATIONS SHEET 3.DWG

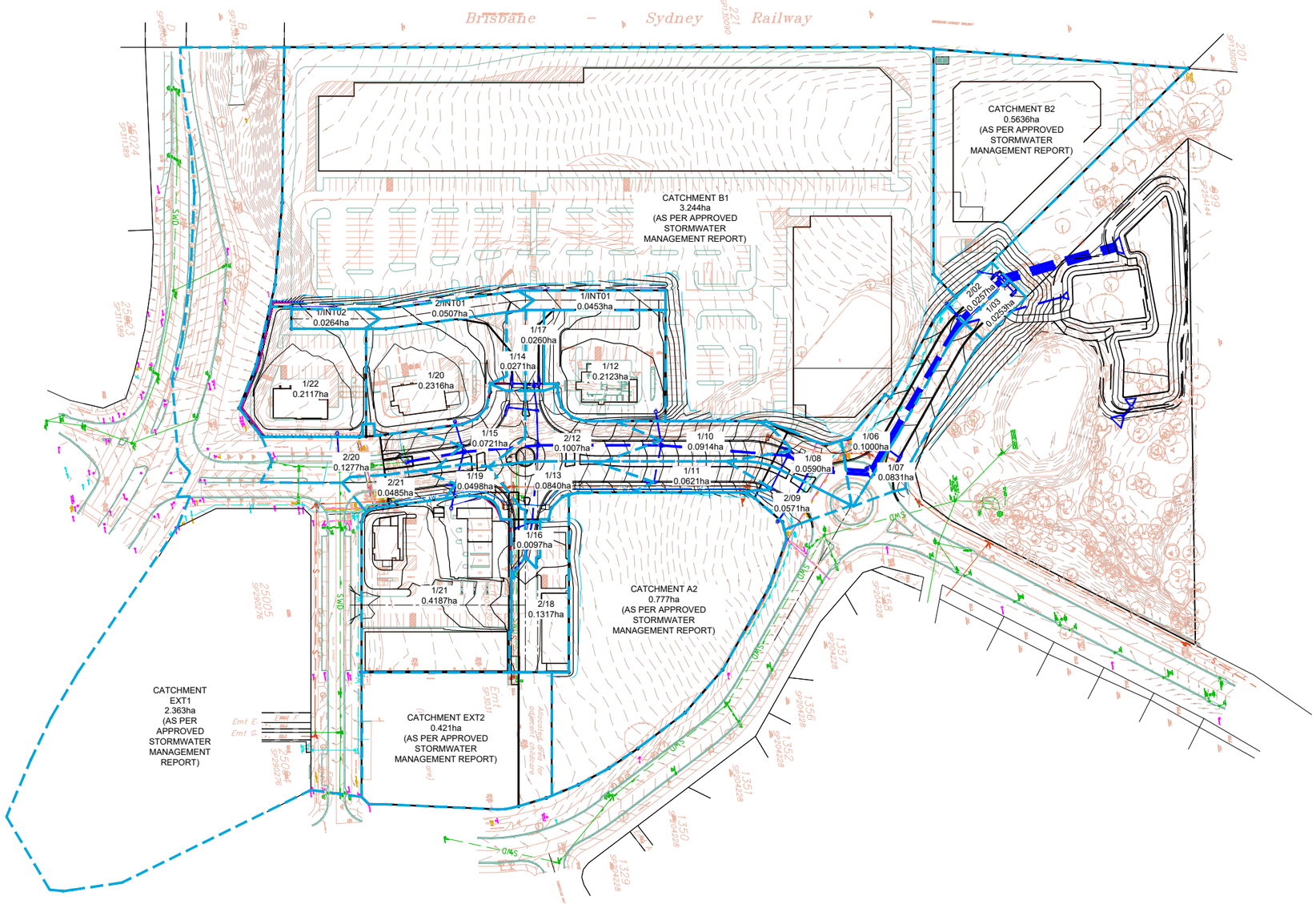
DRAWING TITLE:
STORMWATER CALCULATIONS SHEET 3

PROJECT No.	DRAWING No.	ISSUE
FE25032	C422	01

100mm on A1 SIZE SHEET

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NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.

LEGEND - EXISTING SURVEY

- EXIST. SURVEY 0.5m CONTOUR INTERVAL
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER
- EXISTING SEWER
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING OVERHEAD ELECTRICAL
- EXISTING TELSTRA / COMMS

LEGEND

- SITE BOUNDARY
- PROPOSED GULLY INLET
- PROPOSED MANHOLE
- PROPOSED FIELD INLET
- PROPOSED KERB ADAPATOR
- PROPOSED STORMWATER
- STORMWATER CATCHMENTS

STORMWATER CATCHMENT PLAN

SCALE 1:1000

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

10 0 10 20 30 40 50 1:1000
SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
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R.P.E.Q No	24572	PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

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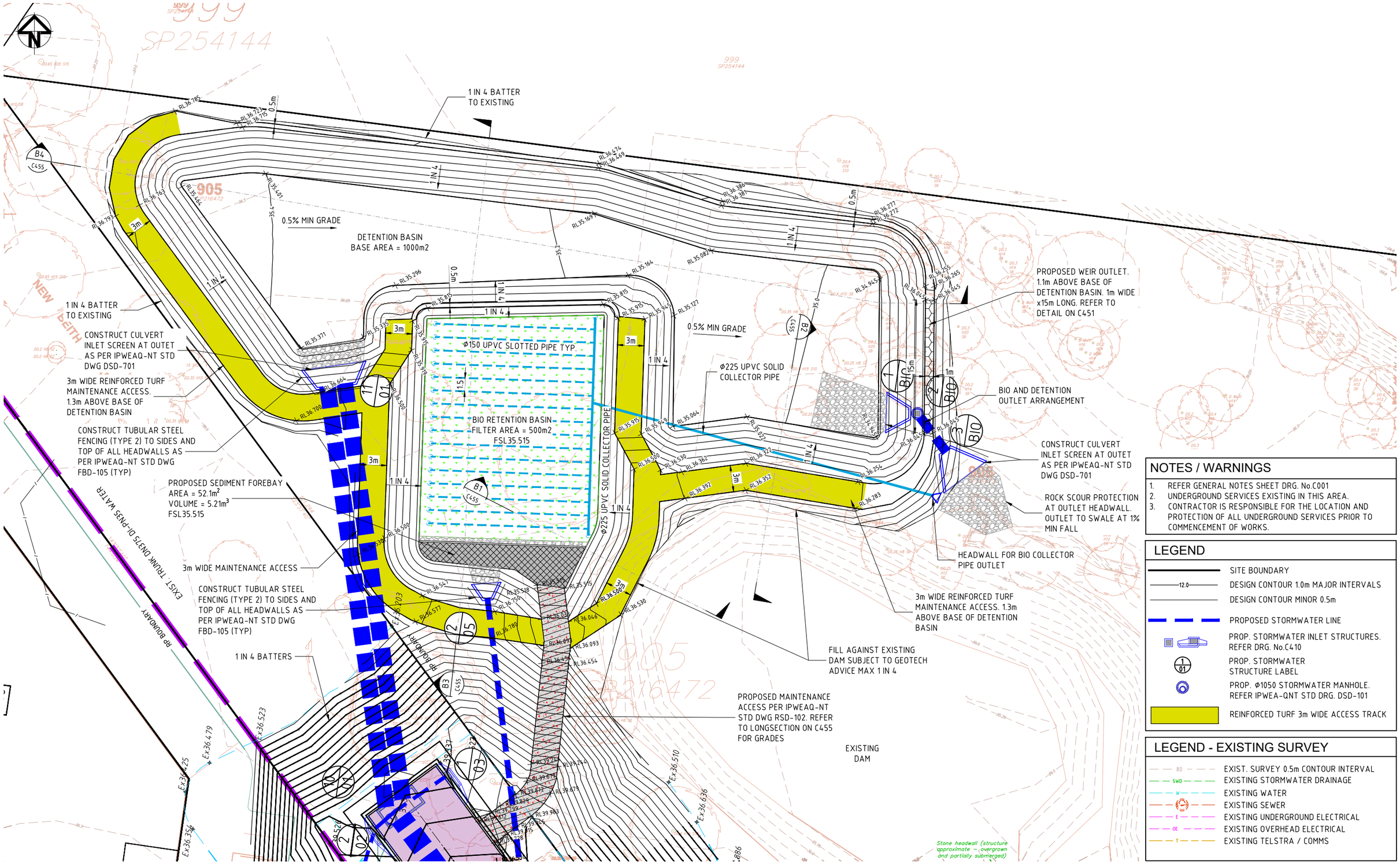
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DRAWING TITLE:
STORMWATER CATCHMENT PLAN

PROJECT No.	DRAWING No.	ISSUE
FE25032	C440	01

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NOTES / WARNINGS

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3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.

LEGEND

- SITE BOUNDARY
- DESIGN CONTOUR 1.0m MAJOR INTERVALS (12.0)
- DESIGN CONTOUR MINOR 0.5m
- PROPOSED STORMWATER LINE
- PROP. STORMWATER INLET STRUCTURES. REFER DRG. No.C410
- PROP. STORMWATER STRUCTURE LABEL (1/01)
- PROP. Ø1050 STORMWATER MANHOLE. REFER IPWEA-QNT STD DRG. DSD-101
- REINFORCED TURF 3m WIDE ACCESS TRACK

LEGEND - EXISTING SURVEY

- EXIST. SURVEY 0.5m CONTOUR INTERVAL (80)
- EXISTING STORMWATER DRAINAGE (SWD)
- EXISTING WATER (W)
- EXISTING SEWER (E)
- EXISTING UNDERGROUND ELECTRICAL (E)
- EXISTING OVERHEAD ELECTRICAL (OE)
- EXISTING TELSTRA / COMMS (T)

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	JD	05/26

ARCHITECT

SURVEYOR

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SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
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CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

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R.P.E.Q No	24572	PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

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FILENAME: C450-FE25032 - STORMWATER BASIN LAYOUT PLAN.DWG

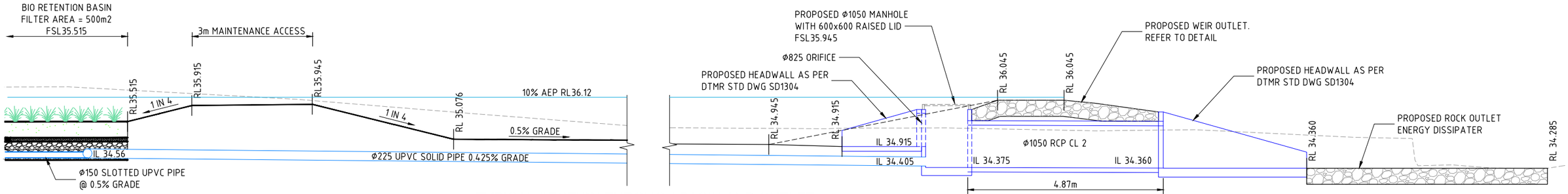
DRAWING TITLE: STORMWATER BASIN LAYOUT PLAN

PROJECT No.	DRAWING No.	ISSUE
FE25032	C450	01

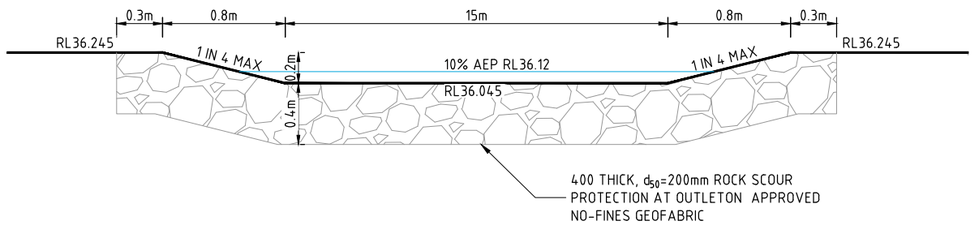
100mm on A1 SIZE SHEET

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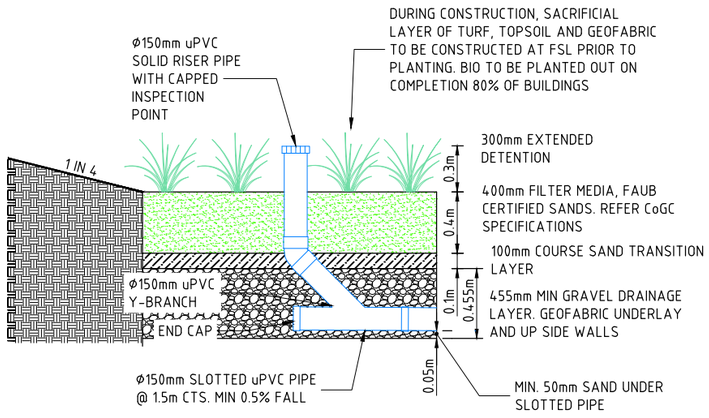
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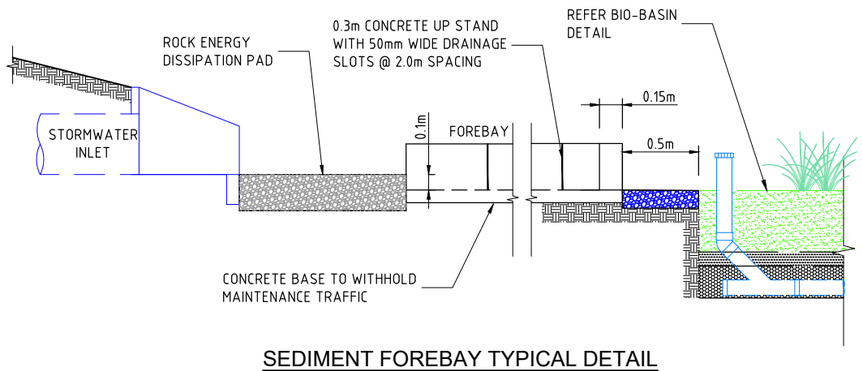
TYPICAL SECTION THROUGH BASIN AND OUTLET
SCALE: NTS



OUTLET WEIR DETAILS
SCALE: NTS



BIO-RETENTION A2 DETAILS
SCALE: 1:20



SEDIMENT FOREBAY TYPICAL DETAIL
SCALE: NTS

BIO-RETENTION NOTES

1. MINIMUM FILTER AREA OF BIO-RETENTION BASIN = 500m² IN ACCORDANCE WITH APPROVED STORMWATER MANAGEMENT PLAN BY PINNACLE ENGINEERING GROUP PEG0810 REV 06 DATED 08/10/2025 .
2. ALL BIO-RETENTION LAYERS AND GENERAL DETAILS ARE TO COMPLY WITH THE "BIO-RETENTION TECHNICAL DESIGN GUIDELINES" BY WATER BY DESIGN.
3. SYSTEM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE "CONSTRUCTION AND ESTABLISHMENT GUIDELINES" BY WATER BY DESIGN.
4. PIPED OUTLET IS TO BE TEMPORARILY BLOCKED DURING CONSTRUCTION.
5. BIO-RETENTION FILTER MEDIA, SAND TRANSITION LAYER AND GRAVEL DRAINAGE LAYERS ARE TO BE IN ACCORDANCE WITH THE "GUIDELINES FOR SOIL MEDIA IN BIO-RETENTION SYSTEMS" BY THE FACILITY FOR ADVANCING WATER BIO-FILTRATION (THE "FAWB" GUIDELINES).
6. UNDER-DRAIN, SLOTTED RIGID UPVC.

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	JD	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)
1 0 1 2
SCALE 1:50
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR
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CLIENT:
BLUEPOINT
PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No : 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering

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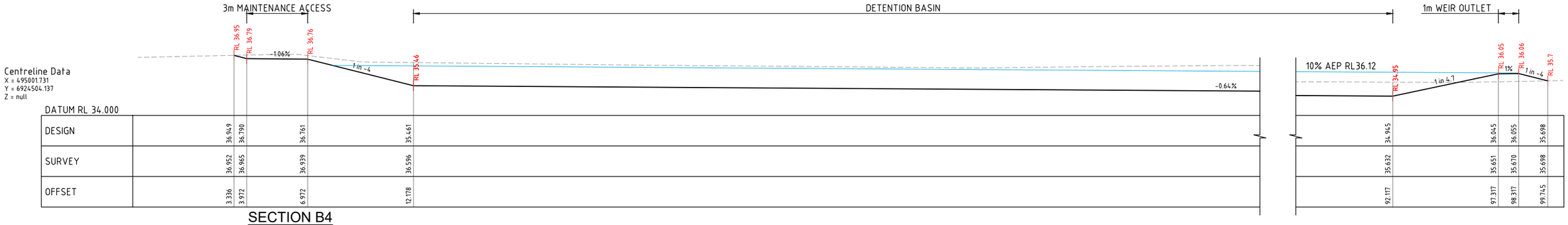
FILENAME: C451-FE25032 - STORMWATER BASIN DETAILS.DWG

DRAWING TITLE:
STORMWATER BASIN
DETAILS

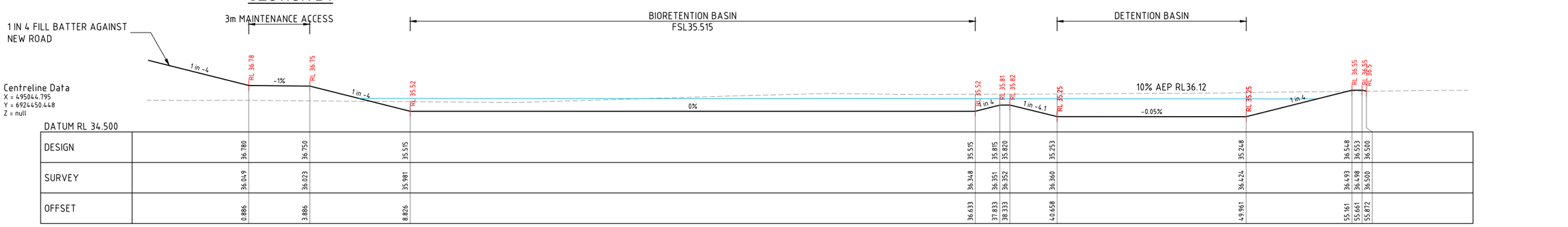
PROJECT No.	DRAWING No.	ISSUE
FE25032	C451	01

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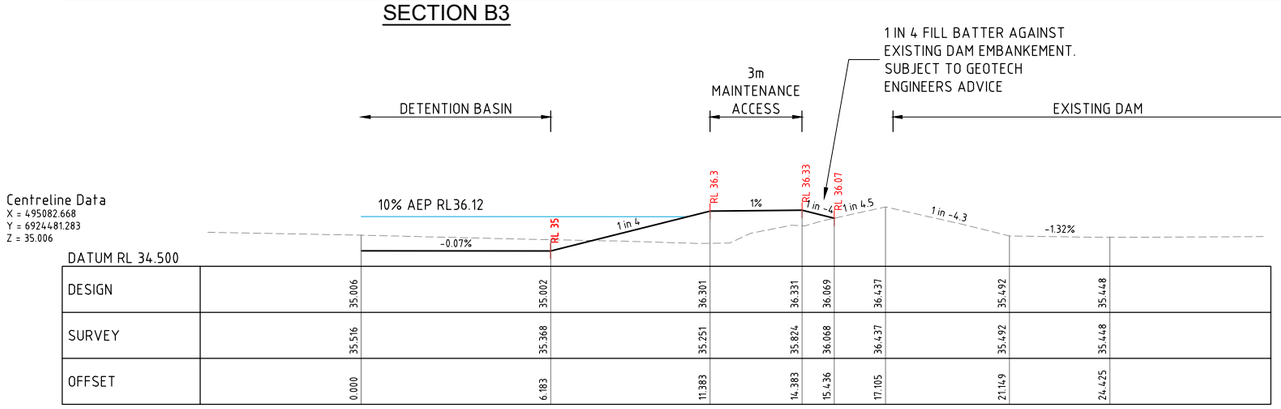
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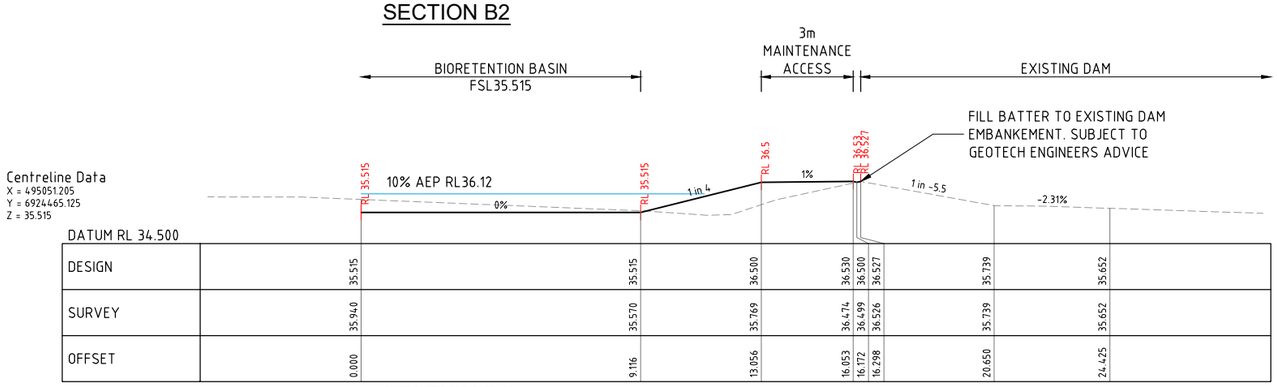
SECTION B4



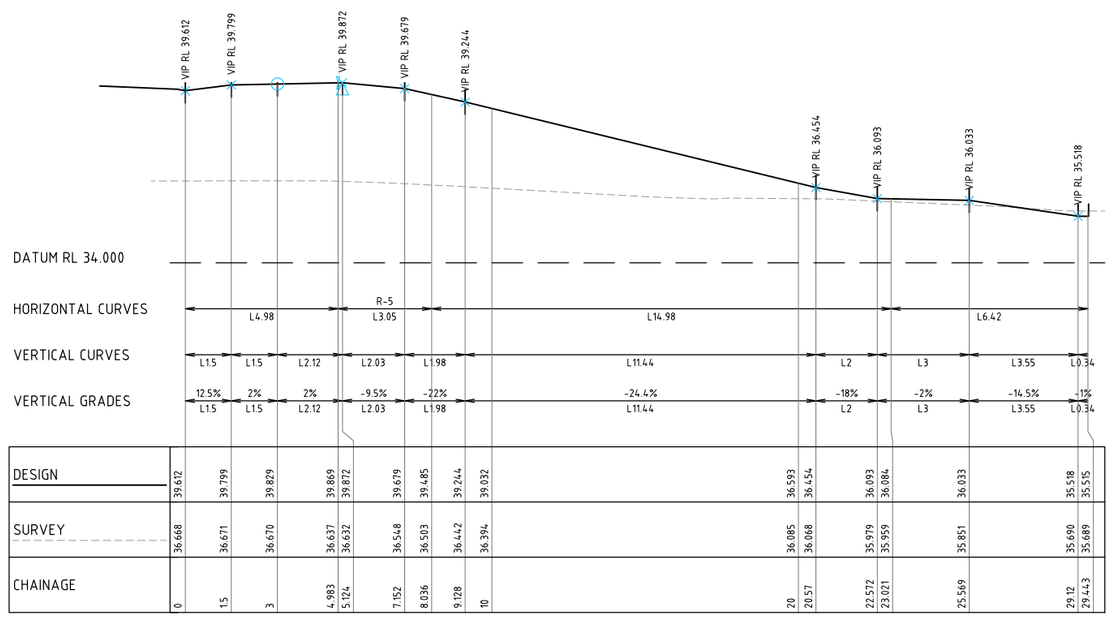
SECTION B3



SECTION B2



SECTION B1



BASIN ACCESS LONGITUDINAL SECTION

A1 SCALE 1:100

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	JD	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

1 0 1 2 3 4 5 1:100
SCALE

SCALES SHOWN ARE AT A1 SIZE

G:\Shared Drives\Projects 2025\FE25032 - 14-22 Wild Mint Drive, Flagstone\CAD\OPW\C455-FE25032 - STORMWATER BASIN SECTIONS.dwg

SURVEYOR

SIMPSON RAYNER SURVEYS
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CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No 24572

		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering
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Mail PO Box 614 BURLEIGH TOWN QLD 4220

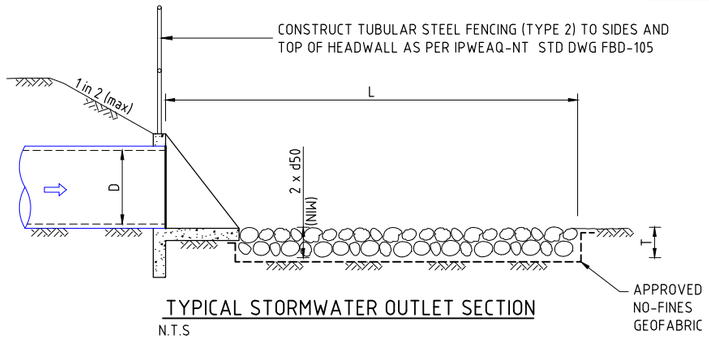
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DRAWING TITLE: STORMWATER BASIN SECTIONS

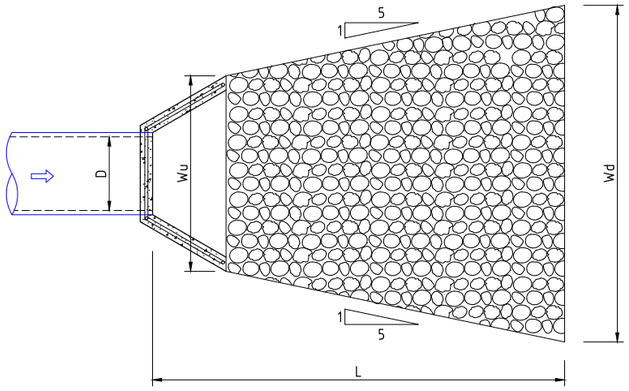
PROJECT No.	DRAWING No.	ISSUE
FE25032	C455	01

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NOTE
ALL NON STANDARD PITS TO BE DESIGNED BY STRUCTURAL ENGINEER INCLUDING FORM 15 AND FORM 12



TYPICAL STORMWATER OUTLET SECTION
N.T.S



TYPICAL STORMWATER OUTLET PLAN
N.T.S

OUTLET PROTECTION TABLE

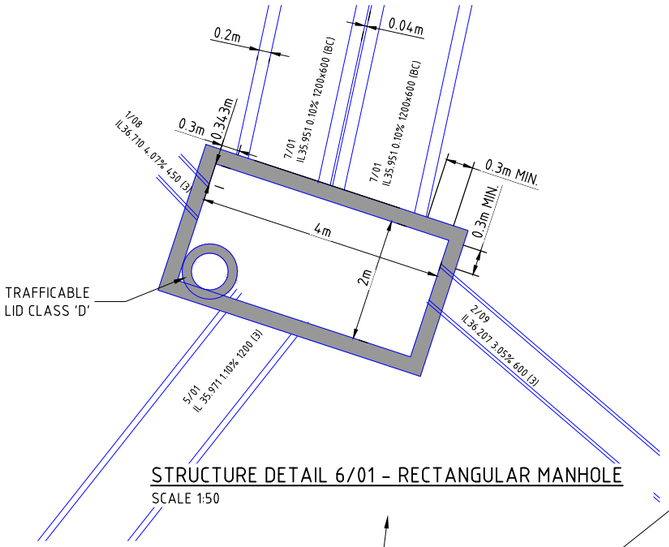
HEADWALL No.	PIPE ⌀	VELOCITY	LENGTH OF PROTECTION	WIDTH OF PROTECTION	NOMINAL ROCK SIZE	THICKNESS OF PROTECTION
	D	V	L	Wu	d50	T
11/01	2x1.8mx0.6m	2.59m/s	MIN. 2.57m	MIN 6.84m	200	0.4m
2/05	600⌀	1.53m/s	MIN 1.8m	MIN 2.8m	100	0.2m
3/BIO	1050⌀	1.50m/s	MIN 8m	MIN 6.36m	200	0.4m
1/BIO	1050⌀	1.50m/s	MIN 8m	MIN 6.36m	200	0.4m

AS PER QDUM FOURTH EDITION 2017,
8.7.2 ROCK PAD OUTLET STRUCTURES

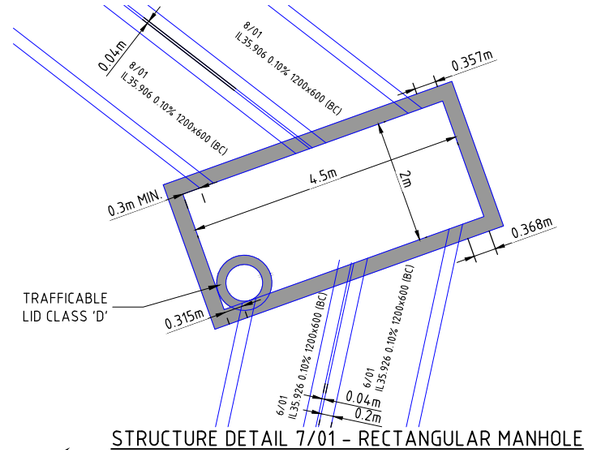
ROCK GRADATION TABLE

SMALLEST DIMENSIONS IN (mm)					% OF ROCK SMALLER THAN SIZE SHOWN
$200d_{50}$	$300d_{50}$	$400d_{50}$	$500d_{50}$	$600d_{50}$	
380	525	630	750	850	100
300	450	550	650	750	50-70
200	300	400	500	600	35-50
75	100	130	150	175	20-35

ALL OUTLET PROTECTION TO BE SIZED AS PER QUDM

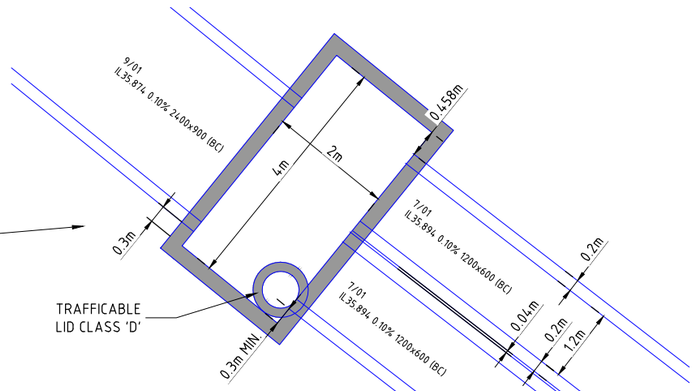


STRUCTURE DETAIL 6/01 - RECTANGULAR MANHOLE
SCALE 1:50

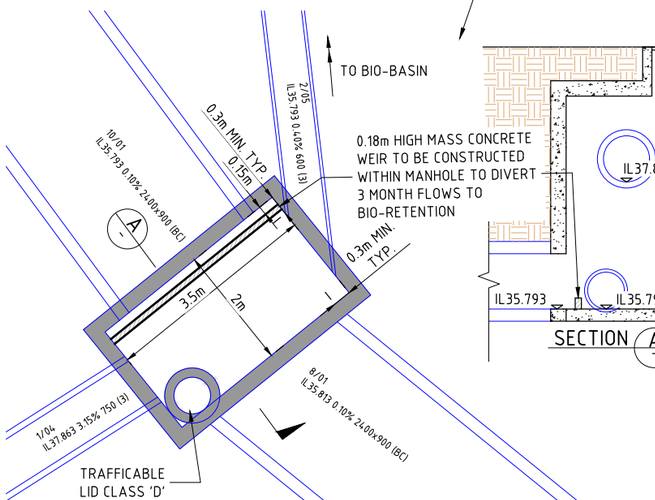


STRUCTURE DETAIL 7/01 - RECTANGULAR MANHOLE
SCALE 1:50

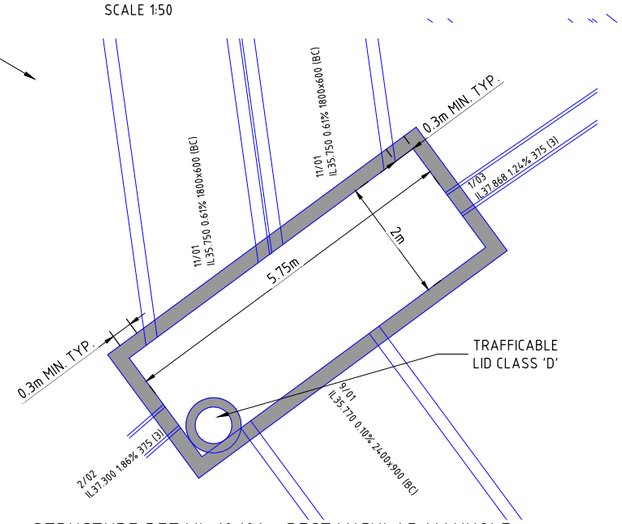
NON-STANDARD STRUCTURES TO BE GENERALLY AS PER IPWEA-QNT DSD-101, DSD-102, DSD-103, DSD-104



STRUCTURE DETAIL 8/01 - RECTANGULAR MANHOLE
SCALE 1:50



STRUCTURE DETAIL 9/01 - RECTANGULAR MANHOLE
SCALE 1:50



STRUCTURE DETAIL 10/01 - RECTANGULAR MANHOLE
SCALE 1:50

01	ORIGINAL ISSUE	JD	05/26
ISSUE	DESCRIPTION	BY	DATE

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)
1 0 1 2 1:50
SCALE
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR
SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION
APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
AR

R.P.E.Q No :24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering

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BURLEIGH TOWN QLD 4220

FILENAME: C460-FE25032 - STORMWATER DETAILS.DWG

DRAWING TITLE:
STORMWATER DETAILS

PROJECT No.	DRAWING No.	ISSUE
FE25032	C460	01

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NOTES WATER

1. ALL LIVE WORKS TO COUNCILS EXISTING WATER SUPPLY NETWORK IS TO BE CARRIED OUT BY THE CONTRACTOR UNDER SUPERVISION BY 'LCC' AND SUBJECT TO LIVE WORKS APPROVAL AT NO COST TO COUNCIL.
2. NOT WITHSTANDING THE DETAILS SHOWN ON THE DRAWINGS ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF GOLD COAST STANDARD SPECIFICATIONS AND SEQ CODE STANDARDS.
3. DRAWING TO BE READ IN CONJUNCTION WITH GENERAL NOTES SHEET DRG. No.C001
4. ALL PVC WATER MAINS TO BE PVC-M PN16.
5. ALL PE WATER MAINS TO BE PE100 PN16.
6. TRENCH STOPS REQUIRED WHERE GRADES AREA 5<GRADE<15, SPACING AS PER S=100/GRADE%. REFER ROAD LONG SECTIONS FOR GRADES, WORKS AS PER SEQ-WAT-1209-1.
7. BULK HEADS REQUIRED WHERE GRADES ARE 15<GRADE<30 S=L/GRADE%, WHERE L=80xPIPE LENGTH, m (450m MAX), REFER ROAD LONG SECTIONS FOR GRADE, WORKS AS PER SEQ-WAT-1209-1
8. ENSURE ALL VALVES, BENDS AND FITTINGS ARE RESTRAINED AS PER SEQ-WAT-1205-1, 1206-1, 1207-1 & 1208-1
9. EXISTING SERVICES LOCATED VIA POTHOLING BY LAMBERT LOCATIONS (REF - 6128). RESULTS INCORPORATED TO THE EXISTING SURVEY BY SIMPSON RAYNER SURVEYS (PLAN 21031A0/1D)
10. REFER SEQ-WAT-1111-1, 1111-10 & 1111-11 FOR WATER METER DETAILS.

LEGEND

- SITE BOUNDARY
- WATER MAIN DN150 PVC-M PN16
- D.I.C.L. PIPE ROAD CROSSING
- SERVICE CONNECTION DN100 DICL PN35 (UNO) REFER SEQ-WAT-1111-10/B & 1111-11/B
- PROPOSED STORMWATER DRAINAGE REFER DRG. No.C400
- PROP. SEWER NETWORK REFER DRG. No.C600

LEGEND - EXISTING SURVEY

- EXIST. SURVEY 0.5m CONTOUR INTERVAL
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER
- EXISTING SEWER
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING OVERHEAD ELECTRICAL
- EXISTING TELSTRA / COMMS

T1 3.416 ha 2

T2

T3

T4

T6

T7A

T7B

T8

T9

T10

LOT 1

LOT 2

LOT 3

LOT 4 2285 m²

LOT 5 2124 m²

LOT 6

LOT 900 8476 m²

SHEET 1 of 3

SHEET 2 of 3

WATER CONNECTION FOR LOTS 4 & 5. REFER DRG. No.C501 (SUBJECT TO SITE REQUIREMENTS AND SEPARATE OPW).

WATER CONNECTION FOR LOT 3. REFER DRG. No.C502 (SUBJECT TO SITE REQUIREMENTS AND SEPARATE OPW).

FUTURE WATER CONNECTION FOR LOT 2 TO BE COMPLETED DURING STAGE 3

EXIST. TRUNK DN375 DI-PN35 WATER MAIN IN NEW BEITH RD

EXTENT OF FUTURE ROADWORKS. TO BE COMPLETED DURING STAGE 4 WORKS

PROPOSED DN32 WATER SERVICE. REFER DRG. No.C501.

PROPOSED DN32 WATER SERVICE. REFER DRG. No.C502.

EXTENT OF EXIST. DN150 PVC-M WATER.

EXIST. ø150 PVC-M WATER

LIVE WATER CONNECTION TO BE DEVELOPER DELIVERED

EXIST. ø100 PVC-M WATER

PROPOSED DN150 PVC-M WATER EXTENSION. REFER DRG. No.C501-C503.

WATER CONNECTION FOR LOT 900. REFER DRG. No.C502 (SUBJECT TO SITE REQUIREMENTS AND SEPARATE OPW).

WATER CONNECTION FOR LOT 6. REFER DRG. No.C501 (SUBJECT TO SITE REQUIREMENTS AND SEPARATE OPW).

PROPOSED DN150 WATER MAIN EXTENSION. CONNECT TO EXIST. DN150 PVC-M. REFER DRG. No.C501

PROPOSED DN150 WATER MAIN EXTENSION TO CONNECT INTO TRUNK DN375 DI-PN35 WATER MAIN IN NEW BEITH RD REFER DRG. No.C502

EXIST. TRUNK DN375 DI-PN35 WATER MAIN IN NEW BEITH RD

NEW ROUNDABOUT

EXIST. ROUNDABOUT

RP BOUNDARY

RW 1

RW 2

FMT

HOLLOWS ROAD

NEW BEITH RD

PARKSIDE DR

ALLISTA ST

WATER CONNECTION LAYOUT PLAN

SCALE 1:500

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET) 10 0 10 20 1:500 SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE: COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No :24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering

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Mail PO Box 614 BURLEIGH TOWN QLD 4220

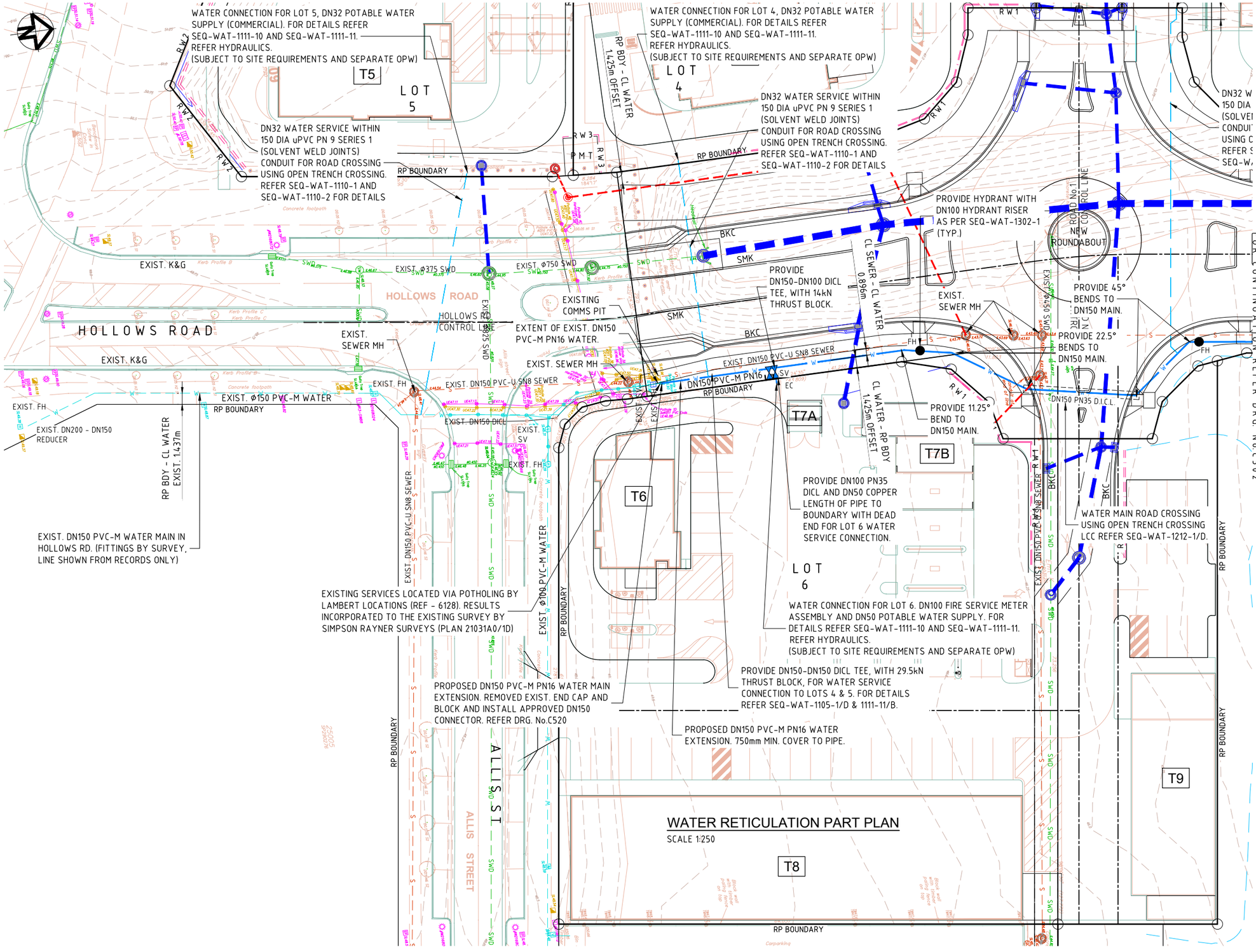
FILENAME: C500-FE25032 - WATER RETICULATION LAYOUT PLAN.DWG

DRAWING TITLE: WATER RETICULATION LAYOUT PLAN

PROJECT No.	DRAWING No.	ISSUE
FE25032	C500	01

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WATER RETICULATION PART PLAN
SCALE 1:250

NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.
4. ENSURE ALL VALVES, BENDS AND FITTINGS ARE RESTRAINED AS PER SEQ-WAT-1205-1, 1206-1, 1207-1 & 1208-1
5. EXISTING SERVICES LOCATED VIA POTHOLING BY LAMBERT LOCATIONS (REF - 6128). RESULTS INCORPORATED TO THE EXISTING SURVEY BY SIMPSON RAYNER SURVEYS (PLAN 21031A0/1D)
6. REFER SEQ-WAT-1111-1, 1111-10 & 1111-11 FOR WATER METER DETAILS.

LEGEND

- SITE BOUNDARY
- WATER MAIN DN150 PVC-M PN16
- WATER FITTINGS - SLUICE VALVE, FIRE HYDRANT, END OF LINE HYDRANT, TEST POINT, REDUCER & END CAP (SV FH EH TP RD EC)
- D.I.C.L. PIPE ROAD CROSSING (D.I.C.L. PN35)
- SERVICE CONNECTION DN100 DICL PN35 (UNO) REFER SEQ-WAT-1111-10/B & 1111-11/B
- PROPOSED STORMWATER DRAINAGE REFER DRG. No.C400
- PROP. SEWER NETWORK REFER DRG. No.C600

LEGEND - EXISTING SURVEY

- EXIST. SURVEY 0.5m CONTOUR INTERVAL
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER
- EXISTING SEWER
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING OVERHEAD ELECTRICAL
- EXISTING TELSTRA / COMMS

NOTE : PRIVATE SERVICES CONDUITS

1. ALL PRIVATE SERVICE CONDUITS REQUIRE PLUMBING AND DRAINAGE APPROVAL PRIOR TO INSTALLATION.
2. PLUMBING AND DRAINAGE APPROVAL IS NOT COVERED BY THIS DRAWING AND MUST BE PREPARAED AND LODGED SEPARATELY BY A HYDRAULIC SERVICE CONSULTANT.
3. ALL PRIVATE SERVICES AND CONDUITS SHOWN ON THIS PLAN ARE PRESENTED FOR INFORMATION ONLY TO INFORM THE SPATIAL REQUIREMENTS OF THE DRIVEWAY.

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

ARCHITECT

SCALE (A1 SHEET) 5 0 5 10 1:250 SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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Telephone (07) 3899 8105 Fax. (07) 3899 8107
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CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No :24572

HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

PROJECT TEAM

Friends civil engineering
Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
p. 0415 704 063 & 0422 024 440
e. contact@friendsengineer.com
w. friendsengineer.com
Mail PO Box 614 BURLEIGH TOWN QLD 4220

FILENAME: C501-FE25032 - WATER RETICULATION SHEET 1 OF 2.DWG

DRAWING TITLE: WATER RETICULATION PART PLAN 1 OF 2

PROJECT No.	DRAWING No.	ISSUE
FE25032	C501	01

100mm on A1 SIZE SHEET

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NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.
4. ENSURE ALL VALVES, BENDS AND FITTINGS ARE RESTRAINED AS PER SEQ-WAT-1205-1, 1206-1, 1207-1 & 1208-1
5. EXISTING SERVICES LOCATED VIA POTHOLING BY LAMBERT LOCATIONS (REF - 6128). RESULTS INCORPORATED TO THE EXISTING SURVEY BY SIMPSON RAYNER SURVEYS (PLAN 21031A0/1D)
6. REFER SEQ-WAT-1111-1, 1111-10 & 1111-11 FOR WATER METER DETAILS.

LEGEND

- SITE BOUNDARY
- W — WATER MAIN DN150 PVC-M PN16
- SV FH EH TP RD EC — WATER FITTINGS - SLUICE VALVE, FIRE HYDRANT, END OF LINE HYDRANT, TEST POINT, REDUCER & END CAP
- D.I.C.L. PN35 — D.I.C.L. PIPE ROAD CROSSING
- SERVICE CONNECTION DN100 DICL PN35 (UNO) REFER SEQ-WAT-1111-10/B & 1111-11/B
- PROPOSED STORMWATER DRAINAGE REFER DRG. No.C400
- PROP. SEWER NETWORK REFER DRG. No.C600

LEGEND - EXISTING SURVEY

- 80 — EXIST. SURVEY 0.5m CONTOUR INTERVAL
- SWD — EXISTING STORMWATER DRAINAGE
- W — EXISTING WATER
- S — EXISTING SEWER
- E — EXISTING UNDERGROUND ELECTRICAL
- OE — EXISTING OVERHEAD ELECTRICAL
- T — EXISTING TELSTRA / COMMS

NOTE : PRIVATE SERVICES CONDUITS

1. ALL PRIVATE SERVICE CONDUITS REQUIRE PLUMBING AND DRAINAGE APPROVAL PRIOR TO INSTALLATION.
2. PLUMBING AND DRAINAGE APPROVAL IS NOT COVERED BY THIS DRAWING AND MUST BE PREPARAED AND LODGED SEPARATELY BY A HYDRAULIC SERVICE CONSULTANT.
3. ALL PRIVATE SERVICES AND CONDUITS SHOWN ON THIS PLAN ARE PRESENTED FOR INFORMATION ONLY TO INFORM THE SPATIAL REQUIREMENTS OF THE DRIVEWAY.

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

5 0 5 10 1:250 SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
ARendess

R.P.E.Q No 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

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FILENAME: C502-FE25032 - WATER RETICULATION SHEET 2 OF 2.DWG

DRAWING TITLE:
WATER RETICULATION
PART PLAN
2 OF 2

PROJECT No.	DRAWING No.	ISSUE
FE25032	C502	01

G:\Shared Drives\Projects 2025\FE25032 - 14-22 Wild Mint Drive, Flagstone\CAD\OPW\C502-FE25032 - WATER RETICULATION SHEET 2 OF 2.dwg

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LOGAN CITY COUNCIL AND CONTRACTORS LIVE SEWER WORKS TABLE

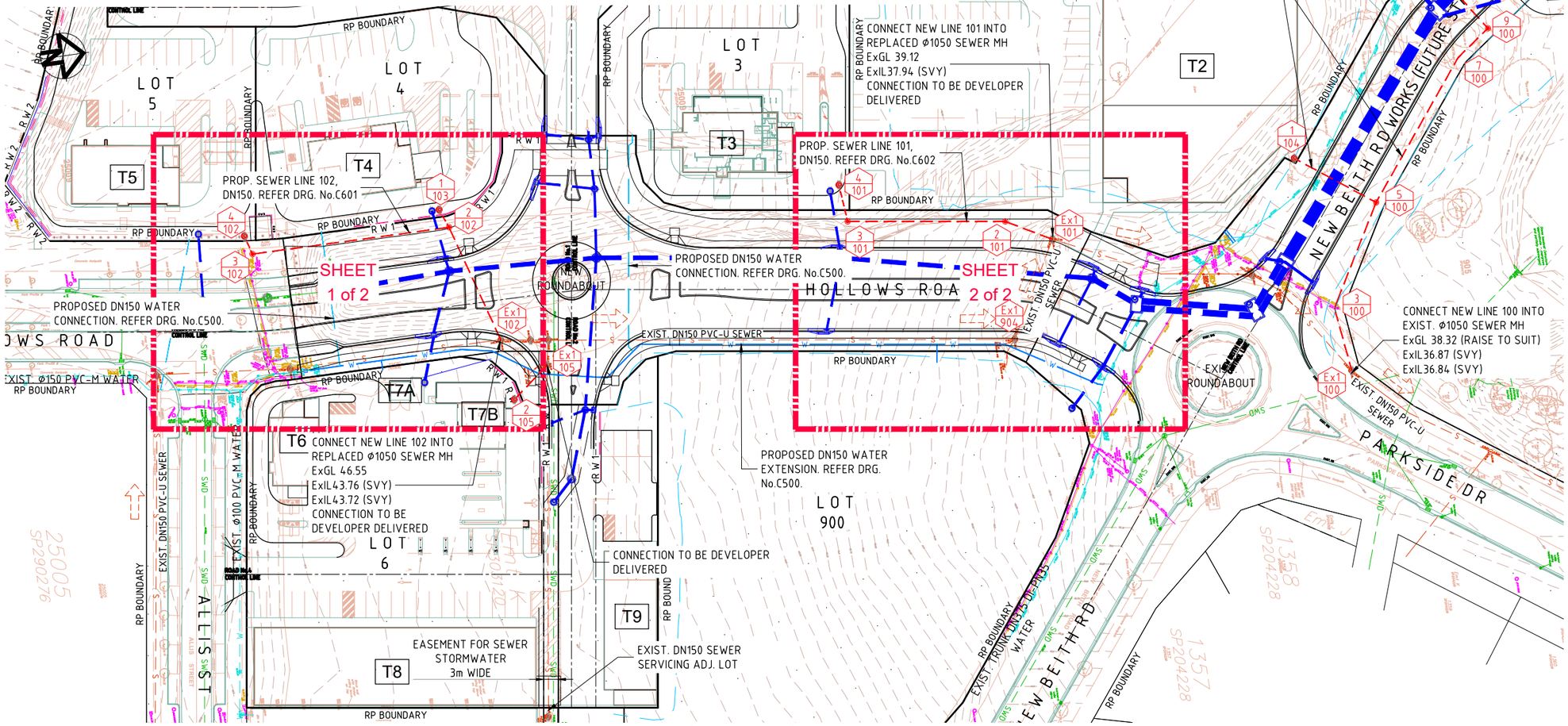
No.	DESCRIPTION	DIA. SEWER	MH NO.	MH/ MS TYPE	COVER TYPE	LOT NO.	F.S.L.	E.S.L.	I.L.	DEPTH TO INVERT
1(A)	AGENCY TO BREAK INTO EXISTING MAINTENANCE HOLE Ex1/102 AND CONSTRUCT A STUB (TEMPORARILY END CAPPED) PRIOR TO START OF CONSTRUCTION.	150	Ex1/102	EX MH	B	-	46.176	46.550	43.720	2.456
1(B)	0.5m FROM STUB END CAP, CONSTRUCTOR TO LAY NEW LINE 102,103. AFTER CLEANSING, TESTING AND INSPECTING, NOTIFY AGENCY.	150 150	Ex1/102 1/103	EX MH MS	(LINE 102) (LINE 103)		46.176 47.603	46.550 47.007	43.720 45.520	2.456 2.083
1(C)	AGENCY TO REMOVE TEMPORARY END CAPS ON STUB LINE 102 AND MAKE LIVE CONNECTIONS AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION.									
2(A)	AGENCY TO BREAK INTO EXISTING MAINTENANCE HOLE Ex1/101 AND CONSTRUCT A STUB (TEMPORARILY END CAPPED) PRIOR TO START OF CONSTRUCTION.	150	Ex1/101	EX MH	B	-	39.058	39.120	37.940	1.078
2(B)	0.5m FROM STUB END CAP, CONSTRUCTOR TO LAY NEW LINE 101. AFTER CLEANSING, TESTING AND INSPECTING, NOTIFY AGENCY.	150	Ex1/101	EX MH	B	-	39.058	39.120	37.940	1.078
2(C)	AGENCY TO REMOVE TEMPORARY END CAPS ON STUB LINE 101 AND MAKE LIVE CONNECTIONS AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION.									
3(A)	AGENCY TO BREAK INTO EXISTING MAINTENANCE HOLE Ex1/105 AND CONSTRUCT A STUB (TEMPORARILY END CAPPED) PRIOR TO START OF CONSTRUCTION.	150	Ex1/105	EX MH	D	-	45.498	46.310	43.770	1.728
3(B)	0.5m FROM STUB END CAP, CONSTRUCTOR TO LAY NEW LINE 105. AFTER CLEANSING, TESTING AND INSPECTING, NOTIFY AGENCY.	150	Ex1/105	EX MH	D	-	45.498	46.310	43.770	1.728
3(C)	AGENCY TO REMOVE TEMPORARY END CAPS ON STUB LINE 105 AND MAKE LIVE CONNECTION AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION.									
	NOTE: CONNECTIONS TO BE DEVELOPER DELIVERED									

NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.
4. EXISTING SERVICES LOCATED ONSITE BY "LAMBERT LOCATIONS" AND PROJECT SURVEYOR.

GENERAL SEWER NOTES

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 THE SEQ SERVICE PROVIDER SEWERAGE SYSTEM.
4. ALL WORK ASSOCIATED WITH LIVE SEWERS OR MAINTENANCE HOLES SHALL BE CARRIED OUT BY THE SEQ SERVICE PROVIDER 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 DN110 PE (OR DN100 PVC) PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A DN160 PE (OR DN150 PVC) PROPERTY CONNECTION SHALL BE PROVIDED.
7. PROPERTY CONNECTIONS SHALL BE LOCATED WITHIN THE PROPERTY AS SHOWN IN THE DRAWINGS.
8. PROPERTY CONNECTION BRANCHES SHALL EXTEND INTO THE PROPERTY AS PER PROVIDER STANDARDS.
9. WHERE PIPES ARE LAID IN FILL, THE FILLING SHALL BE CARRIED OUT IN LAYERS NOT EXCEEDING 300 mm (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 THE SEQ SERVICE PROVIDER 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.
13. STRUCTURAL DESIGN OF NON STANDARD CHAMBERS/LIDS, AS PER IPWEA, TO BE COMPLETED BY CONTRACTORS ENGINEER INCLUDING FORM 15 AND FORM 16 CERTIFICATIONS.
14. EXISTING ALLOTMENTS REQUIRING A PROPERTY CONNECTION FROM EXISTING SEWERS SHALL BE PROVIDED BY THE SEQ SERVICE PROVIDER AT THE DEVELOPERS COST.



SEWER LAYOUT PLAN
SCALE 1:500

LEGEND - EXISTING SURVEY

- EXIST. SURVEY 0.5m CONTOUR INTERVAL
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER
- EXISTING SEWER
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING OVERHEAD ELECTRICAL
- EXISTING TELSTRA / COMMS

LEGEND

- SITE BOUNDARY
- PROPOSED SEWER MANHOLE/MAINTENANCE SHAFT
- PROPOSED SEWER MANHOLE LABELS
- PROP. SEWER NETWORK ø150 uPVC (U.N.O.)
- PROVIDE HOUSE SERVICE PROPERTY CONNECTION TYPE 'D'. REFER SEQ-SEW-1104-1/C & SEQ-SEW-1105-1/C
- EXISTING SEWER TO BE REMOVED
- PROP. WATER SERVICE. REFER DRG. No.C500
- PROPOSED STORMWATER NETWORK. REFER DRG. No.C400

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

ARCHITECT

SCALE (A1 SHEET)
10 0 10 20 1:500
SCALE
SCALES SHOWN ARE AT A1 SIZE

100mm on A1 SIZE SHEET

G:\Shared Drives\Projects 2025\FE25032 - 14-22 Wild Mint Drive, Flagstone\CAD\OPW\C600-FE25032 - SEWER LAYOUT PLAN.dwg

SURVEYOR

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CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
AR

R.P.E.Q No 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering

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FILENAME: C600-FE25032 - SEWER LAYOUT PLAN.DWG

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DRAWING TITLE:
SEWER CONNECTION LAYOUT PLAN

PROJECT No.	DRAWING No.	ISSUE
FE25032	C600	01

LOT 4 HOUSE CONNECTION TYPE 'A' DN150 FROM MANHOLE . TYPE 'X' DROP TO NEW ø1050 SEWER MH. REFER SEQ-SEW-1104-1/D & 1303-1/C FOR DETAILS. GL 47.603 IL 46.223

LOT 4

LOT 5

LOT 5 HOUSE CONNECTION TYPE 'A' DN150 FROM MANHOLE. TYPE 'V' DROP TO NEW ø1050 SEWER MH. REFER SEQ-SEW-1104-1/D & 1303-1/C FOR DETAILS. GL 48.492 IL 47.027

RP BOUNDARY

R W 1

R W 3

P M T

NEW RD

RP BDY - SEW 2.35m

RP - WAT 1.425m

CL WAT - CL SEW 0.925m

PROP. DN150 UPVC SN8 SEWER MAIN LINE 102. FOR LONGITUDINAL SECTION REFER DRG. No.C610

BKC

Headwall

EXIST. K0

EXIST.DD

EXTENT OF NEW ROADWORKS, MATCH INTO EXISTING ROAD. REFER DRG. No.C300

EXIST. ø375 SWD

EXIST. ø750 SWD

EXIST. SMK

SMK

PROVIDE CLASS 'D' TRAFFICABLE COVER AND ADJUST STRUCTURE TO MATCH NEW ROAD LEVELS ExGL45.81 (SVY) FSL 45.653

PROVIDE CLASS 'D' TRAFFICABLE COVER AND ADJUST STRUCTURE TO MATCH NEW ROAD LEVELS ExGL46.14 (SVY) FSL45.724

EXIST. ø450 SWD

FOR CONTINUATION REFER DRG No.C600

PROPOSED DN32 WATER SERVICE WITHIN CONDUIT. REFER DRG. No.C500.

ROAD

HOLLOWS RD CONTROL LINE

HOLLOWS ROAD

EXIST. ø1050 SEWER MH EXGL 48.04 (SVY) EXIL44.22 (SVY) EXIL44.21 (SVY)

EXIST. K&G

EXIST. DN150 PVC-U SN8 SEWER

EXIST. DN150 PVC WATER

EXIST. DN150 DICL WATER

ALLIS ST

CL EX-SEWER - CL WATER 0.89m

CL EX-SEWER - RP BDY 2.315m OFFSET

RP BOUNDARY

REMOVE EXIST. SEWER STRUCTURE AND BUILD ø1050 MH WITH TYPE V DROP

EXIST. SEWER MH. STUB TO BE REMOVED. CONSTRUCT LINE 105 FOR LOT 6 CONNECTION

PROPOSED DN150 WATER CONNECTION. REFER DRG. No.C500.

T7A

LOT 6 HOUSE CONNECTION TYPE 'A' DN150 FROM MANHOLE. TYPE 'V' DROP TO NEW ø1050 SEWER MH. REFER SEQ-SEW-1104-1/D & 1303-1/C FOR DETAILS. GL 46.876 IL 44.461

LOT 6

T7B

REMOVE EXIST. SEWER STRUCTURE AND BUILD ø1050 MH WITH TYPE V DROP.

EXIST. DN150 PVC SN8 SEWER

BKC

NEW RD

SEWER PART PLAN

SCALE 1:125

NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001 & C600
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
3. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORKS.
4. EXISTING SERVICES LOCATED ONSITE BY "LAMBERT LOCATIONS" AND PROJECT SURVEYOR.FOR SEWER LONGITUDINAL SECTIONS REFER DRG. No.C610 - C611

LEGEND - EXISTING SURVEY

- EXIST. SURVEY 0.5m CONTOUR INTERVAL
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER
- EXISTING SEWER
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING OVERHEAD ELECTRICAL
- EXISTING TELSTRA / COMMS

LEGEND

- SITE BOUNDARY
- PROPOSED SEWER MANHOLE/MAINTENANCE SHAFT
- PROPOSED SEWER MANHOLE LABELS
- PROP. SEWER NETWORK ø150 uPVC (U.N.O.)
- PROVIDE HOUSE SERVICE PROPERTY CONNECTION TYPE 'D'. REFER SEQ-SEW-1104-1/C & SEQ-SEW-1105-1/C
- EXISTING SEWER TO BE REMOVED
- PROP. WATER SERVICE. REFER DRG. No.C500
- PROPOSED STORMWATER NETWORK. REFER DRG. No.C400

WARNING

1. THE CONTRACTOR MUST ENSURE ANY EXISTING SEWER MANHOLE GRATE LEVEL HEIGHT ADJUSTMENTS OR MANHOLE COVER REPLACEMENTS ARE UNDER LIVE WORKS SUPERVISION WITH LCC.

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step.

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

2.5 0 2.5 5 1:125

SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering

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FILENAME: C601-FE25032 - SEWER PART PLAN SHEET 1 OF 2.DWG

DRAWING TITLE:
SEWER CONNECTION PART PLAN 1 OF 2

PROJECT No.	DRAWING No.	ISSUE
FE25032	C601	01

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LOT 3

LOT 2

RP BOUNDARY

LOT 3 HOUSE CONNECTION TYPE 'A' DN150 FROM MANHOLE.
TYPE 'V' DROP TO NEW ø1050 SEWER MH. REFER
SEQ-SEW-1104-1/D & 1303-1/C FOR DETAILS.
GL 45.072 (TO MATCH NEW PAVEMENT)
IL 43.760

4
101

2m

RP BOUNDARY

2.35m

RP BDY - SEW

CONCRETE ENCASE "TYPE 9"EXISTING ø150
PVC SEWER MAIN WITH LESS THAN 900mm
COVER AS PER SEQ-SEW-1203-1/A

REMOVE EXIST. SEWER STRUCTURE AND
BUILD ø1050 MH WITH TYPE V DROP.

EXISTING ø150 DI SEWER MAIN
WITH LESS THAN 900mm COVER

3
101

PROP. DN150 UPVC SN8 SEWER
MAIN LINE 101. FOR LONGITUDINAL
SECTION REFER DRG. NO.C610

2
101

Ex1
101

IL37.94

RP BOUNDARY

EXIST. DN150 DI SEWER

BKC

SMK

HOLLOWS ROAD

SMK

CONTINUATION REFER DRG. No.C600

BKC

Ex1
904

LOWER EXIST. SEWER STRUCTURE &
PROVIDE CLASS 'D' TRAFFICABLE COVER.
ExGL 39.39 (SVY)
FSL 39.424

EXIST. DN150 PVC-U SN8 SEWER

RP BOUNDARY

PROPOSED DN150 WATER
EXTENSION. REFER DRG.
No.C500.

0.964m
CL EX-SEWER - CL WATER

EXIST. 2.397m OFFSET
CL EX-SEW - RP BDY

LOT 900 TO USE EXIST. HOUSE CONNECTION
PROVIDED AT EXIST. SEWER MH. STUB
ExIL38.15 (SVY)
(PIPE IL, SIZE AND MATERIAL TO BE
CONFIRMED PRIOR TO WORKS COMMENCEMENT.)

Stub IL 38.15 By Records only

RP BOUNDARY

LOT 900

EXIST. TRUNK DN375 DI-PN35
WATER MAIN IN NEW BEITH RD.
(LOCATION TO BE CONFIRMED.)

EXIST DN375 DI-PN35

EXIST K&G

BKC

NOTES / WARNINGS

1. REFER GENERAL NOTES SHEET DRG. No.C001 & C600
2. UNDERGROUND SERVICES EXISTING IN THIS AREA.
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4. EXISTING SERVICES LOCATED ONSITE BY "LAMBERT LOCATIONS" AND PROJECT SURVEYOR.FOR SEWER LONGITUDINAL SECTIONS REFER DRG. No.C610 - C611

LEGEND - EXISTING SURVEY

- EXIST. SURVEY 0.5m CONTOUR INTERVAL
- EXISTING STORMWATER DRAINAGE
- EXISTING WATER
- EXISTING SEWER
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING OVERHEAD ELECTRICAL
- EXISTING TELSTRA / COMMS

LEGEND

- SITE BOUNDARY
- PROPOSED SEWER MANHOLE/MAINTENANCE SHAFT
- PROPOSED SEWER MANHOLE LABELS
- PROP. SEWER NETWORK ø150 uPVC (U.N.O.)
- PROVIDE HOUSE SERVICE PROPERTY CONNECTION TYPE 'D'. REFER SEQ-SEW-1104-1/C & SEQ-SEW-1105-1/C
- EXISTING SEWER TO BE REMOVED
- PROP. WATER SERVICE. REFER DRG. No.C500
- PROPOSED STORMWATER NETWORK. REFER DRG. No.C400

WARNING

1. THE CONTRACTOR MUST ENSURE ANY EXISTING SEWER MANHOLE GRATE LEVEL HEIGHT ADJUSTMENTS OR MANHOLE COVER REPLACEMENTS ARE UNDER LIVE WORKS SUPERVISION WITH LCC.

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step.

SEWER PART PLAN

SCALE 1:125

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	TM	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)

2.5 0 2.5 5 1:125
SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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CLIENT: BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
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APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD

R.P.E.Q No. 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Friends civil engineering

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FILENAME: C602-FE25032 - SEWER PART PLAN SHEET 2 OF 2.DWG

DRAWING TITLE:
SEWER CONNECTION
PART PLAN
2 OF 2

PROJECT No.	DRAWING No.	ISSUE
FE25032	C602	01

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MAINTENANCE HOLE / SHAFT NAME	1/101	2/101	3/101	4/101
MH / MS COVER TYPE	D	D	D	D
MH / MS TYPE	MH P2	MC H	MC H	MH P2
DS MH / MS DROP TYPE	V	V	V	X
LINE DEFLECTION & BRANCHES		-21°	77°	
PROPERTY CONNECTION TYPE				A

LEGEND

MH/MS COVER TYPES:
D. = CLASS 'D'

MAINTENANCE HOLE TYPES

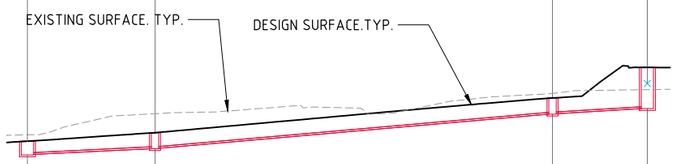
P2 = CAST IN-SITU CONCRETE 1.050ø
P3 = PRE-CAST CONCRETE 1.050ø
MS = MAINTENANCE SHAFT
SRB = SHORT RADIUS BEND
TP = TANGENT POINT OF SRB
RE = RODDING END REFER TO SEQ-SEW-1314-1

FOR OTHER TYPES REFER TO SEQ-SEW-1300 SET
MH COVER TYPES REFER TO SEQ-SEW-1308 SET

1. ALL LEVELS, CHAINAGES & DISTANCE IN METRES.
2. REFER SEQ-SEW-1200 SERIES FOR BEDDING & BACKFILL REQUIREMENTS.
3. REFER SEQ-SEW-1300 SERIES FOR MAINTENANCE STRUCTURE TYPES & DROPS AND FOR RIGSS COMPLIANT APPURTENANCES.
4. PIPE MATERIAL TO BE SPECIFIED AS REQUIRED BY RIGSS (PVC).
5. REFER SEQ-SEW-1104 & SEQ-SEW-1105 FOR PROPERTY CONNECTION TYPES.
6. DETAILS OF STANDARD DN150 LONG RADIUS PVC BENDS ARE SHOWN AT SEQ-SEW-1314-3.

TRENCH STOPS / BULK HEADS

TRENCH STOPS >5%<15%
BULK HEADS >15%<30%
REFER WSAA GRAVITY SEWERAGE CODE OF AUSTRALIA - TABLE 9.1 'REQUIREMENTS FOR BULK HEADS AND TRENCHSTOPS'.



Lot 3 IL 43.760 D 1.312
CH 7.736

DATUM RL	10.000			
PROPERTY DESCRIPTION				
PIPE SIZE (mm), CLASS	150, uPVC SN8	150, uPVC SN8		150, uPVC SN8
GRADE (1 IN X)	22.08	11.65		18.2
LENGTH	10.406	32.413		7.736
EMBEDMENT TYPE				
FINISHED (& EXISTING) SURFACE LEVEL	39.058 (39.579)	39.752 (41.301)	42.588 (42.951)	45.072 (43.261)
DEPTH OF INVERT BELOW FSL	1.078 1.078	1.301 1.271	1.326 1.296	3.355
INVERT LEVEL	37.940 37.980	38.451 38.481	41.263 41.292	41.718
CHAINAGE	0.000	10.406	42.819	50.555

LINE 101

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)
10 0 10 20 30 40 50
SCALE 1:1000
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR
SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
CADASTRAL LAND SURVEYORS, PLANNERS AND LAND DEVELOPMENT CONSULTANTS
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Telephone (07) 3899 8105 Fax. (07) 3899 8107
Email: info@srsurveys.com.au

CLIENT:
BLUEPOINT PROPERTY

PROJECT TITLE:
COMMERCIAL DEVELOPMENT
CNR HOMESTEAD DR/HOLLOWS RD
FLAGSTONE QLD (STAGE 1)
LOTS 25007 & 25009 ON SP303120

APPROVAL ISSUE
NOT FOR CONSTRUCTION

APPROVED FOR AND ON BEHALF OF FRIENDS CIVIL ENGINEERING PTY LTD
AR

R.P.E.Q No : 24572		PROJECT TEAM	
HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

Fe Friends civil engineering

Friends Civil Engineering Pty Ltd
ABN 40 638 121 132
p. 0415 704 063 & 0422 024 440
e. contact@friendsengineer.com
w. friendsengineer.com
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FILENAME: C610-FE25032 - SEWER LONGSECTIONS SHEET 1.DWG

DRAWING TITLE:
SEWER LONGSECTIONS SHEET 1

PROJECT No.	DRAWING No.	ISSUE
FE25032	C610	01

G:\Shared Drives\Projects 2025\FE25032 - 14-22 Wild Mint Drive, Flagstone\CAD\OPW\C610-FE25032 - SEWER LONGSECTIONS SHEET 1.dwg

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LEGEND

MH/MS COVER TYPES:
D. = CLASS 'D'

MAINTENANCE HOLE TYPES

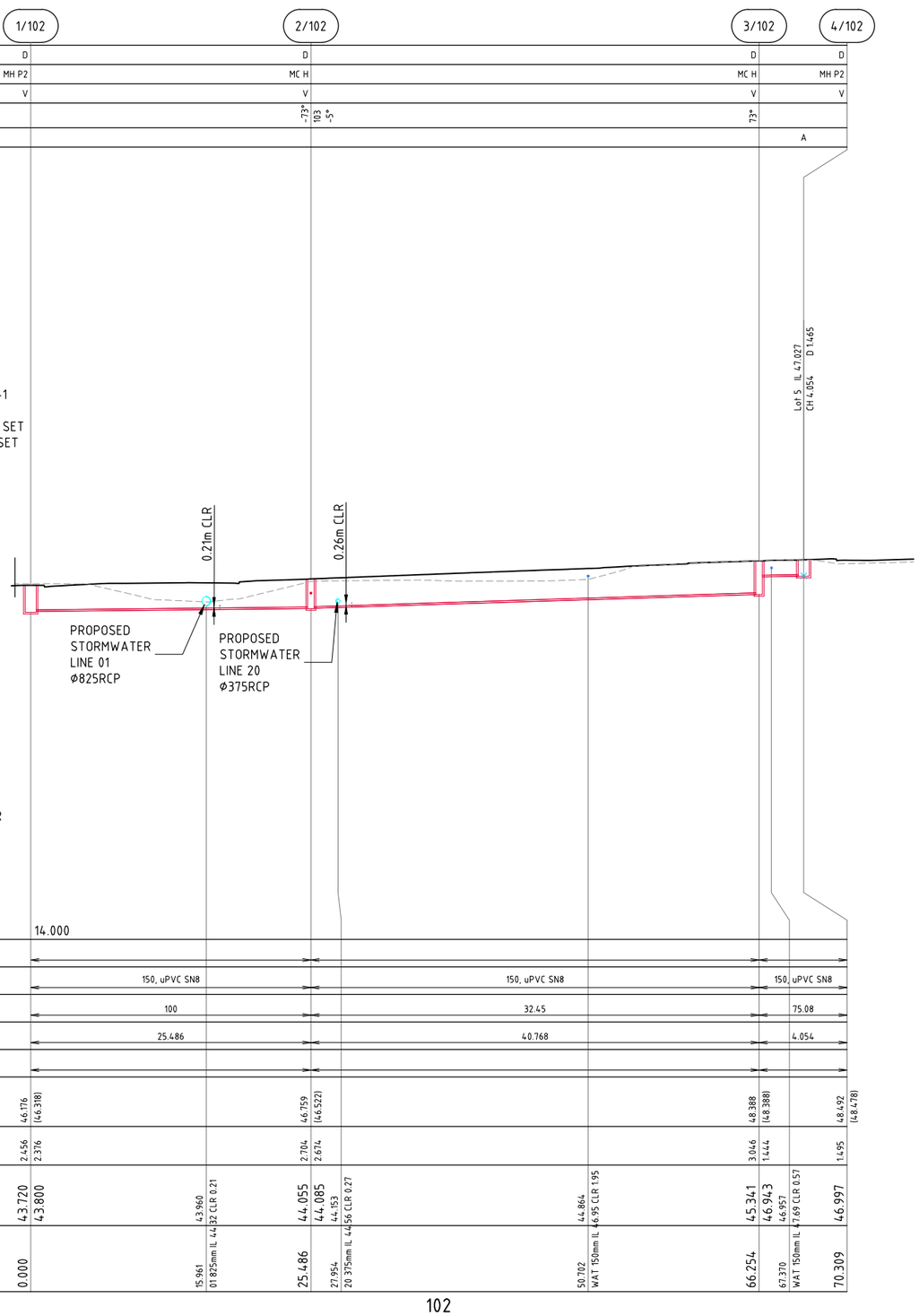
P2 = CAST IN-SITU CONCRETE 1.050ø
P3 = PRE-CAST CONCRETE 1.050ø
MS = MAINTENANCE SHAFT
SRB = SHORT RADIUS BEND
TP = TANGENT POINT OF SRB
RE = RODDING END REFER TO SEQ-SEW-1314-1

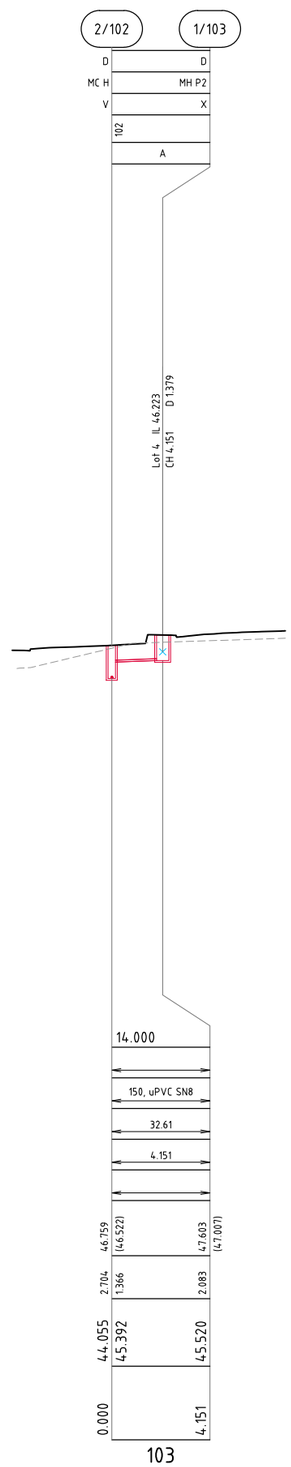
FOR OTHER TYPES REFER TO SEQ-SEW-1300 SET
MH COVER TYPES REFER TO SEQ-SEW-1308 SET

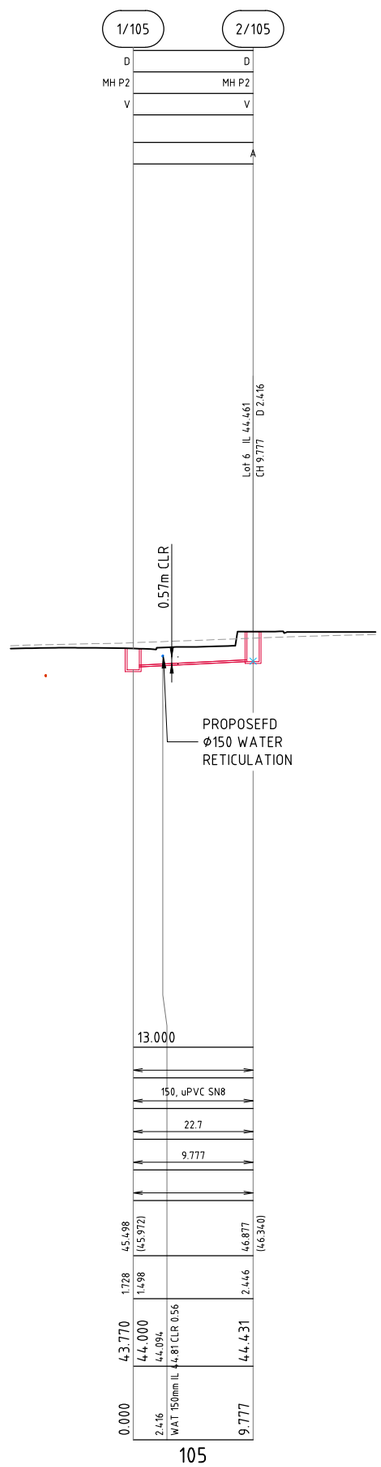
1. ALL LEVELS, CHAINAGES & DISTANCE IN METRES.
2. REFER SEQ-SEW-1200 SERIES FOR BEDDING & BACKFILL REQUIREMENTS.
3. REFER SEQ-SEW-1300 SERIES FOR MAINTENANCE STRUCTURE TYPES & DROPS AND FOR RIGSS COMPLIANT APPURTENANCES.
4. PIPE MATERIAL TO BE SPECIFIED AS REQUIRED BY RIGSS (PVC).
5. REFER SEQ-SEW-1104 & SEQ-SEW-1105 FOR PROPERTY CONNECTION TYPES.
6. DETAILS OF STANDARD DN150 LONG RADIUS PVC BENDS ARE SHOWN AT SEQ-SEW-1314-3.

TRENCH STOPS / BULK HEADS

TRENCH STOPS >5%<15%
BULK HEADS >15%<30%
REFER WSAA GRAVITY SEWERAGE CODE OF AUSTRALIA - TABLE 9.1 'REQUIREMENTS FOR BULK HEADS AND TRENCHSTOPS'.







ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

100mm on A1 SIZE SHEET

ARCHITECT

SCALE (A1 SHEET)
10 0 10 20 30 40 50
SCALE 1:1000
SCALES SHOWN ARE AT A1 SIZE

SURVEYOR
SIMPSON RAYNER SURVEYS
SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
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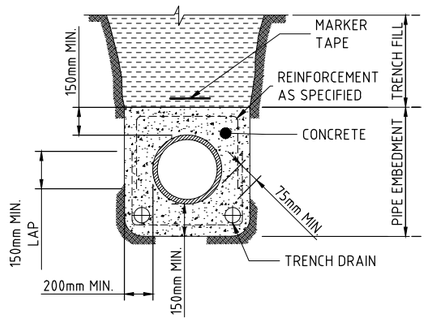
FILENAME: C611-FE25032 - SEWER LONGSECTIONS SHEET 2.DWG

DRAWING TITLE:
SEWER LONGSECTIONS

PROJECT No.	DRAWING No.	ISSUE
FE25032	C611	01

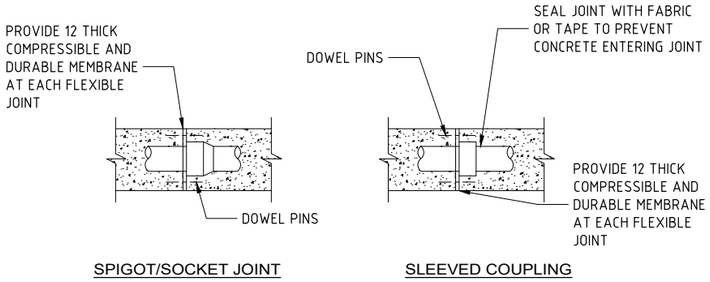
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TYPE 9 SUPPORT UTILISING CONCRETE EMBEDMENT

N.T.S. REFER TO SEQ-SEW-1203-1 FOR FURTHER DETAILS.

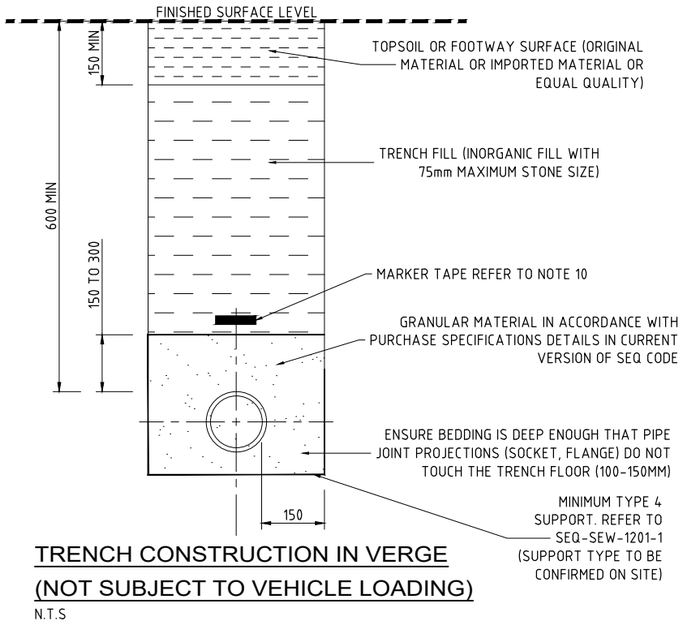


CONCRETE ENCASEMENT JOINT DETAILS

N.T.S. REFER TO SEQ-SEW-1203-1 FOR FURTHER DETAILS.

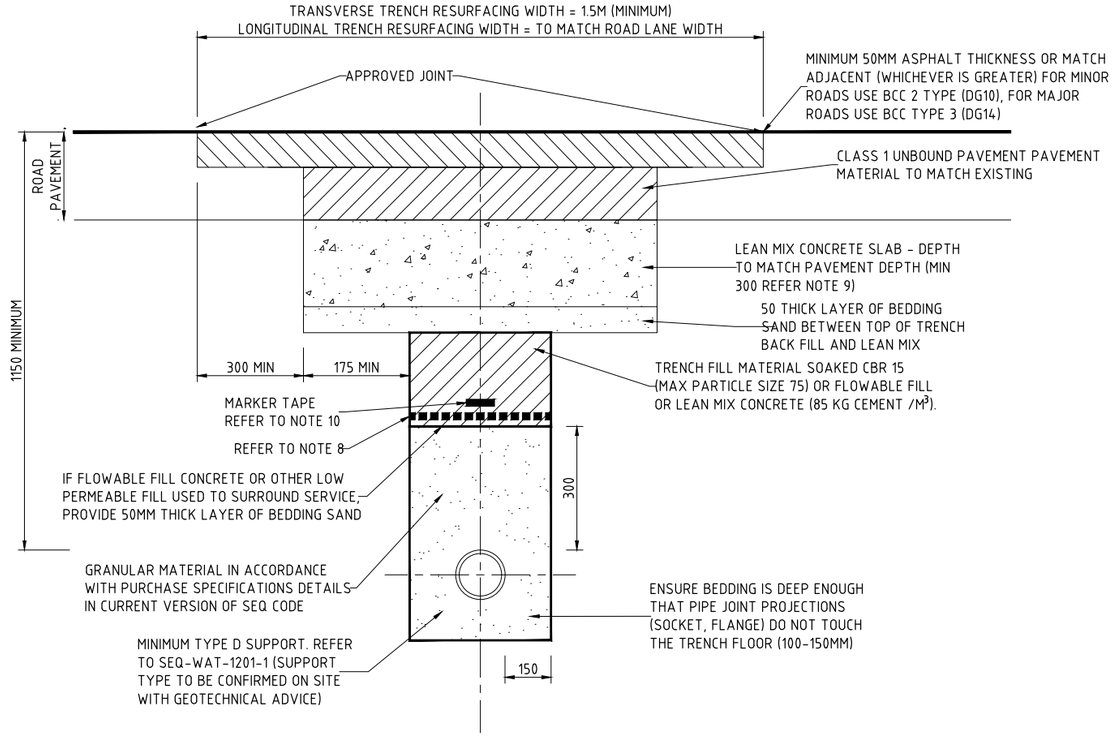
NOTES

1. ALL LEVELS ARE TO BE CONFIRMED VIA DETAILED SURVEY PRIOR TO CONSTRUCTION.
2. LOCATIONS OF EXISTING SERVICES TO BE CONFIRMED PRIOR TO CONSTRUCTION.
3. REFER TO IPWEA-QNT RSD-803 AND SEQ-SEW-1200-2 FOR DETAILS AND NOTES NOT SHOWN.
4. SPECIAL BEDDING (IN REPLACEMENT OF BEDDING SHOWN) SHALL BE UTILISED TO SUIT THE CONDITIONS IF THE TRENCH FLOOR HAS:
   - IRREGULAR OUTCROPS OF ROCK.AHBP OF <50KPA.(REFER TO SEQ-SEW-1200-1 FOR DETERMINATION).
   - UNCONTROLLED GROUND WATER HAS DISTURBED THE FLOOR OF THE TRENCH.
5. SPECIAL BEDDING DETAILS (IF DETERMINED TO BE REQUIRED ON SITE) TO COMPLY WITH SEQ-SEW-1201-1, SEQ-SEW-1202-1 OR SEQ-SEW-1203-1 AS NECESSARY
6. SIDES OF EXCAVATION TO BE KEPT VERTICAL AT LEAST 150MM ABOVE THE PIPE.
7. FOR EXCAVATION, BEDDING AND BACK FILL REQUIREMENTS REFER TO CODES. FOR PAVEMENT AND WEARING SURFACE AND SUB-BASE OR SUBGRADE DETAILS REFER TO COGC STANDARD DRAWINGS AND SPECIFICATIONS.
8. A GEOTEXTILE BARRIER SHALL BE PROVIDED AT THE INTERFACE OF EMBEDMENT ZONE AND THE TRENCH FILL ZONE.
9. THE LEAN MIX SLAB USED SHALL BE GRADE N15 CONCRETE WITH ZERO SLUMP AND PLACED AND COMPACTED IN 100 THICK LAYERS.
10. THE ALIGNMENT OF ALL PIPES SHALL BE DEFINED BY A MARKER TAPE PLACED AS SHOWN AT TOP OF EMBEDMENT. THE TAPE SHALL CONTAIN A CONTINUOUS METAL STRIP AND BE COLOURED AND PROVIDED WITH A DESCRIPTION OF THE WATER PRODUCE WITHIN.
11. DIMENSIONS IN MILLIMETERS (U.N.O).



TRENCH CONSTRUCTION IN VERGE (NOT SUBJECT TO VEHICLE LOADING)

N.T.S



TRENCH CONSTRUCTION CROSSING SEALED ROADS

N.T.S

ISSUE	DESCRIPTION	BY	DATE
01	ORIGINAL ISSUE	BS	05/26

ARCHITECT

SCALE (A1 SHEET)

10 0 10 20 30 40 50 1:1000 SCALE

SCALES SHOWN ARE AT A1 SIZE

SURVEYOR

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SIMPSON RAYNER SURVEYS PTY LTD A.C.N. 078 818 167
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R.P.E.Q No :24572

HEIGHT DATUM	AHD	DESIGNER	TM/GH
GRID	MGA	CHECKER	AR
ORIGINAL SHEET SIZE	A1	APPROVED	GH

PROJECT TEAM

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FILENAME: C620-FE25032 - SEWER DETAILS AND NOTES.DWG

DRAWING TITLE: SEWER DETAILS

PROJECT No.	DRAWING No.	ISSUE
FE25032	C620	01

100mm on A1 SIZE SHEET

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