LEGEND

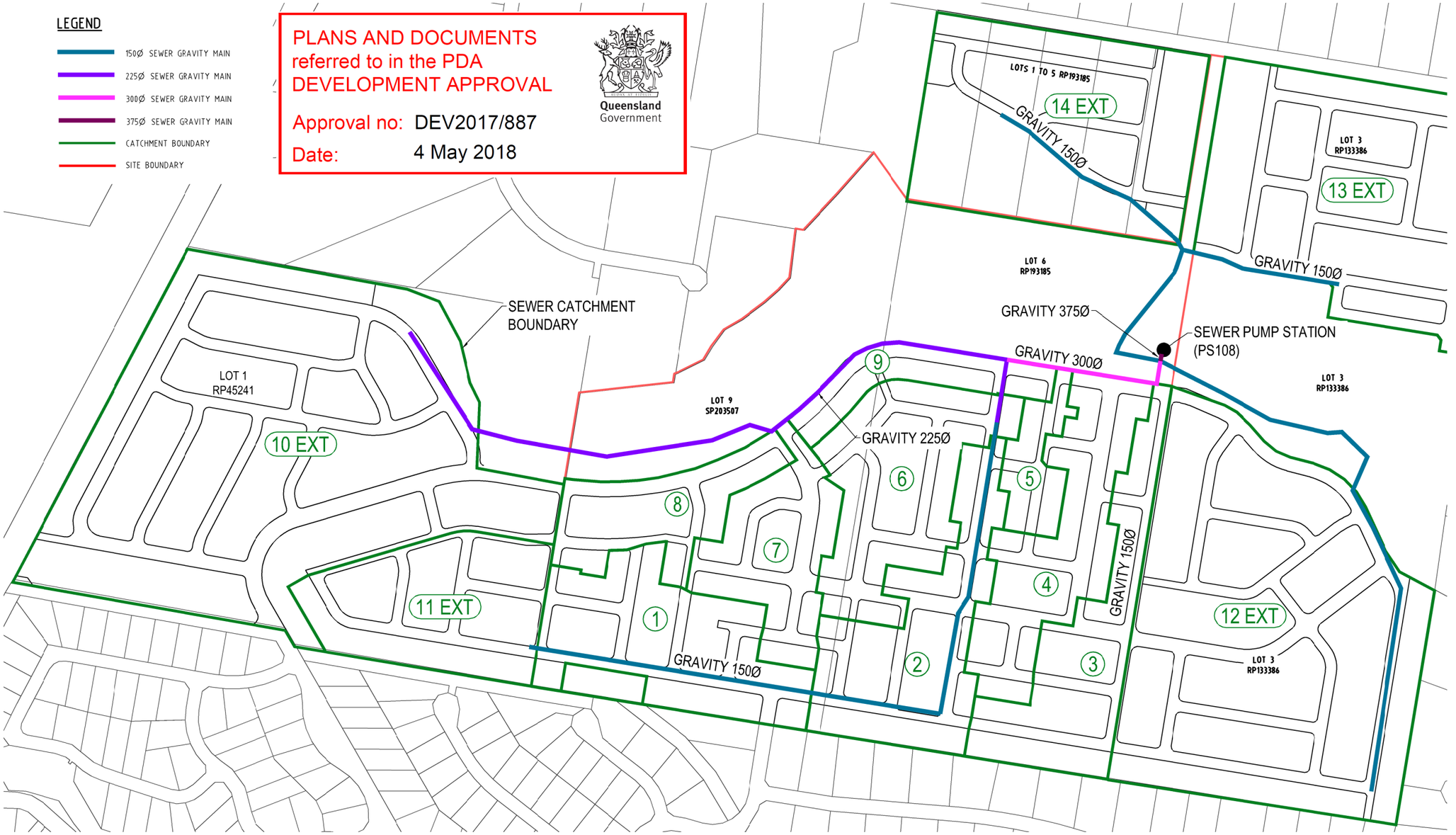
- 150Ø SEWER GRAVITY MAIN
- 225Ø SEWER GRAVITY MAIN
- 300Ø SEWER GRAVITY MAIN
- 375Ø SEWER GRAVITY MAIN
- CATCHMENT BOUNDARY
- SITE BOUNDARY

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2017/887

Date: 4 May 2018

Queensland Government



Mountain Ridge - Sewer Network

Location	Catchment ID	Type	Approximate Catchment Area (ha)	Dwelling Count (No.)	EP Conversion Factor EP/ET	EP Count	ADWF (l/EP/d)	ADWF (l/s)	d Dry Weather Peaking Factor	PDWF (l/s)	PWWF (l/EP/d)	PWWF (l/s)
INTERNAL SEWER LOAD												
Lot 6 RP193185 & Lot 9 SP203507	1	Residential	5.616	95	2.7	256.5	165	0.490	4.79	2.35	1,000	2.97
Lot 6 RP193185 & Lot 9 SP203507	2	Residential	5.685	97	2.7	261.9	165	0.500	4.77	2.39	1,000	3.03
Lot 6 RP193185 & Lot 9 SP203507	3	Residential	4.757	82	2.7	221.4	165	0.423	5.00	2.11	1,000	2.56
Lot 6 RP193185 & Lot 9 SP203507	4	Residential	4.983	89	2.7	240.3	165	0.459	4.94	2.27	1,000	2.78
Lot 6 RP193185 & Lot 9 SP203507	5	Residential	1.399	28	2.7	75.6	165	0.144	6.92	1.00	1,000	0.88
Lot 6 RP193185 & Lot 9 SP203507	6	Residential	5.574	107	2.7	288.9	165	0.552	4.80	2.65	1,000	3.34
Lot 6 RP193185 & Lot 9 SP203507	7	Residential	3.763	67	2.7	180.9	165	0.345	5.32	1.84	1,000	2.09
Lot 6 RP193185 & Lot 9 SP203507	8	Residential	3.168	54	2.7	145.8	165	0.278	5.56	1.55	1,000	1.69
Lot 6 RP193185 & Lot 9 SP203507	9	Residential	1.982	31	2.7	83.7	165	0.160	6.30	1.01	1,000	0.97
Lot 6 RP193185 & Lot 9 SP203507	9	District Rec	7.5	0	0	6.0	165	0.011	4.44	0.05	1,000	0.07
Sub-total				**650**		**1,761.0**		**3.36**		**17.20**		**20.38**
EXTERNAL CATCHMENT												
Lot 1 SP45241 (North-West)	10 EXT	Residential	22.74	412	2.7	1,112.4	165	2.124	3.38	7.19	1,000	12.88
Lot 1 SP45241 (South-East)	11 EXT	Residential	5.49	68	2.7	183.6	165	0.351	4.82	1.69	1,000	2.13
Lot 3 RP133386 (South)	12 EXT	Residential	18.40	312	2.7	842.4	165	1.609	3.56	5.72	1,000	9.75
Lot 3 RP133386 (North)	13 EXT	Residential	12.70	216	2.7	583.2	165	1.114	3.89	4.33	1,000	6.75
Lots 1 to 5 RP193185	14 EXT	Residential	6.47	110	2.7	297.0	165	0.567	4.61	2.62	1,000	3.44
Sub Total				**1118**		**3,018.6**		**5.76**		**21.55**		**34.94**
Total				**1,768**		**4,779.6 EP**		**9.13 ADWF (l/s)**		**38.76 PDWF (l/s)**		**55.32 PWWF (l/s)**
									d x 0.00191 x EP			

Table calculations based on Logan Water Alliance's Master Planning Review - Review of Desired Standards of Service (dated 25th June 2014)

Catchments & Proposed Pipe Sizes

Contributing Catchments	Total PDWF	Total PWWF	Proposed Pipe Size
10 EXT	7.19	12.88	225mm
10 EXT + 8	8.74	14.56	225mm
10 EXT + 8 + 7	10.58	16.66	225mm
10 EXT + 8 + 7 + 9	11.63	17.69	225mm
11 EXT	1.69	2.13	150mm
11 EXT + 1	4.03	5.09	150mm
11 EXT +1 + 2	6.42	8.13	150mm
11 EXT +1 + 2 + 6	9.07	11.47	225mm
10 EXT + 8 + 7 + 9 + 11 EXT +1 + 2 + 6	20.70	29.16	300mm
10 EXT + 8 + 7 + 9 + 11 EXT +1 + 2 + 6 + 5	21.70	30.04	300mm
12 EXT	5.72	9.75	150mm
12 EXT + 3	7.84	12.31	225mm
12 EXT + 3 + 4	10.10	15.09	225mm
10 EXT + 8 + 7 + 9 + 11 EXT +1 + 2 + 6 + 5 + 12 EXT + 3 + 4	31.81	45.13	375mm
13 EXT	4.33	6.75	150mm
13 EXT + 14 EXT	6.95	10.19	150mm
All Catchments	**38.76**	**55.32**	

Pipe Capacities At Minimum Grades
(PWWF @ 75% Depth)

Ø150 - 10.5 l/s @ 1 in 180
Ø225 - 23.9 l/s @ 1 in 300
Ø300 - 44.5 l/s @ 1 in 400
Ø375 - 71.9 l/s @ 1 in 500
Using Colebrook-White Formula

Pipe Capacities At Minimum Grades
(PDWF @ 60% Depth)

Ø150 - 7.7 l/s @ 1 in 180
Ø225 - 17.6 l/s @ 1 in 300
Ø300 - 32.8 l/s @ 1 in 400
Ø375 - 53.0 l/s @ 1 in 500
Using Colebrook-White Formula

NOTES:

1. TRUNK INFRASTRUCTURE (PUMP STATION AND RISING MAIN) GENERALLY IN ACCORDANCE WITH GFPDA ICOP DOCUMENT.
2. CATCHMENTS ARE INDICATIVE ONLY AND SUBJECT TO DETAILED DESIGN.
3. OTHER SEWER MAINS NOT SHOWN TO BE 150Ø.
4. SAUNDERS HAVILL GROUP DWG '7344 P 09 SK D (2)' USED AS BASE.
5. RISING MAIN FROM PUMP STATION TO TREATMENT PLANT NOT SHOWN. SEE RISING MAIN OPTION DRAWINGS FOR MORE INFO.

PROJECT NAME

MOUNTAIN RIDGE

OVERALL

RP DESCRIPTION
Lot 6 RP193185
& Lot 9 SP203507

CLIENT

MOUNTAIN RIDGE ROAD PTY/LTD

NORTH

0 30 60 90 120 150m
Scale 1:3000 - A1 (1:6000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL		
CONSTRUCTION		

F	19-09-17	REVISED FOR UPDATED LOT LAYOUT
E	23-01-17	MINOR AMENDMENT
D	11-01-17	LOT LAYOUT AMENDED
C	28-12-16	EXT8 & RISING MAIN OPTION 2 ADDED
B	05-12-16	ISSUE TO EDQ/CLIENT
A	25-11-16	FOR COMMENT
PRE	DATE	AMENDMENT

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH 001-NOTES AND 002-LEGEND

ASSOCIATED CONSULTANTS

saunders havill group · OSCORP engineering · WATER TECHNOLOGY · BITZIOS consulting

DRAWING TITLE

PRELIMINARY SEWER NETWORK

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Urban & Regional Planning
Civil Engineering
Project Coordination

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DESIGNED	PP	DRAWN	CB
APPROVED		PPEQ	DATE 25-11-16

DRAWING NUMBER 29301-ALL-S500

AMEND. F