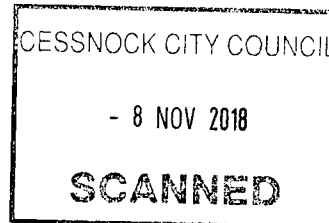


File Ref: 15/029
5 November 2018

General Manager
Cessnock City Council
PO Box 152
CESSNOCK NSW 2325



Attention: Kristen Wells



PO Box 40, Maitland NSW 2320
1st Floor, 44 Church Street
Maitland NSW 2320

ABN: 35 078 017 508

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Dear Ms. Wells,

Request for additional information - Proposed staged subdivision
DA 8/2016/557/1 - Wine Country Drive, Rothbury

I refer to our meeting with Council held on the 29th August and your email, dated 24th Oct, and wish to submit the following additional information.

Background

The recently adopted *Black Creek Stage 2 Flood Study* identifies that some of the residential allotments proposed under DA 8/2016/557/1 are within the 'flood way' as defined by Black Creek Hydraulic Category map (**Appendix A**). As such, Council officers advised that the concept master plan should satisfy Cessnock DCP, *Part C, Chapter 9* requirements for development on flood prone land.

I also note your email, dated 24th Oct, requesting additional information over the proposed net loss/ gain of native vegetation types and the requirement for a draft vegetation management plan, and provide our response below under each prescribed heading:

Flood prone land

To satisfy the relevant DCP requirements for new developments within flood prone land, it is proposed to make the following minor amendments to the Concept Master Plan to comply with Council's new flood prone land.

1. Subdivision – Concept Master Plan

As shown on the enclosed *Flood Category Map* (**Appendix A**), only 4 residential allotments were affected by the defined 'flood way'.

A minor lot-adjustment is proposed for that part of the Concept Master Plan to relocate some allotments to a flood-free area. As previously advised, it is also proposed to fill a section of this land to raise the road level along with a suitably designed box culvert so that all allotments will be safe from flood risk. Refer to enclosed **Appendix B** showing the amended lot layout.

With this amendment, all residential allotments satisfy the relevant DCP requirements.



The development outcome of the Concept Master Plan remains essentially the same as originally proposed. I submit the following under **Appendix C** for council approval:

- i. *Revised Concept Master Plan, dated 24/10/2018* reflecting the amended subdivision layout;
- ii. *Revised Plan of Subdivision, dated 24/10/2018* reflecting the proposed amendments to the super lots; and
- iii. *Revised subdivision plan with overlaid Flood Category.*

2. Raised road level with a culvert as proposed by HDB letter, dated 9th Nov 2017

As advised in this letter, flood free access and exit to *Lot 305* can be achieved by a minor land fill along with the installation of a suitably designed box culvert to raise the road above the 1% AEP without affecting the flood flows. Refer to **Appendix D** for concept plans showing the proposed fill areas and culvert location.

The extrapolated 1% AEP flood event for this section of land (**Appendix E**) shows a maximum flood water level at RL42.75. The natural surface at this point is 42m AHD which gives a maximum depth of water at 0.75m in the 1% AEP. As shown in the attached road cross *section 3* (**Appendix D**) the proposed fill will raise the surface level of that part of the road up to RL43.64, which is approximately 900mm above the projected maximum water levels for 1% AEP flood event. This road therefore, satisfies the NSW floodplain development manual requirements for a safe evacuation route.

Flood water in this area is not deep and there is no hydraulic difference between the water on one side of the road and the other, therefore, water would flow in both directions away from the road. The box culvert will be placed under the road to cater for any flows that may eventuate as is the case with all road designs.

The fill levels shown in the attached plans (**Appendix D**) are indicative only to demonstrate that a solution can be achieved. Further information in respect to the cut, fill and drainage on the site will be submitted in the subsequent development applications, for Council's assessment in accordance with the provisions of section 4.22 of the Environmental Planning and Assessment Act.

Request for Ecological information

3. Potential net loss/ gain of vegetation types

As previously advised, DA 8/2016/557/1 seeks approval for a concept plan and a staged consent for a paper subdivision of four (4) super lots; as such, there are no works proposed under the current application. Information on the required site works for implementing the concept plan including details of proposed vegetation clearing and revegetation will be addressed in subsequent development applications in accordance with section 4.22 of the act.

Presently, the information available on vegetation clearing and revegetation is limited to what was presented by *Table 6 – Proposed vegetation removal & retention* under Ecological Update prepared by *MJD Environmental Pty Ltd*, dated 26 Apr 2016.



4. Requirement of a draft VMP at stage 1

I acknowledge that preparation of a vegetation management plan (VMP) could be a mechanism for managing the potential impact on native vegetation and proposed revegetation. However, it is understood that referrals from relevant government agencies must inform the preparation of a VMP, which are currently unavailable due to the early stages of detailed design. As such, this information will be submitted to council when designs are available at subsequent DA stages. It is noted that this could be included as advice on this approval.

Conclusion

HDB lodged DA 8/2016/557/1 seeking approval for a concept master plan and stage 1 development being a paper subdivision of 1 into 4 super lots. No works have been proposed under this application, as such detailed information on the works required to implement this concept master plan is currently unknown.

I trust this now satisfies Council's request for additional information, and we look forward to Council's favourable consideration of the application and referral to the Joint Planning Panel as soon as possible.

Yours sincerely

HDB Town Planning & Design



Kanishka Guluwita

Planner/ Urban Designer

Enc: Appendix A – Hydraulic Category Plan

Appendix B – Proposed amendments to the concept master plan

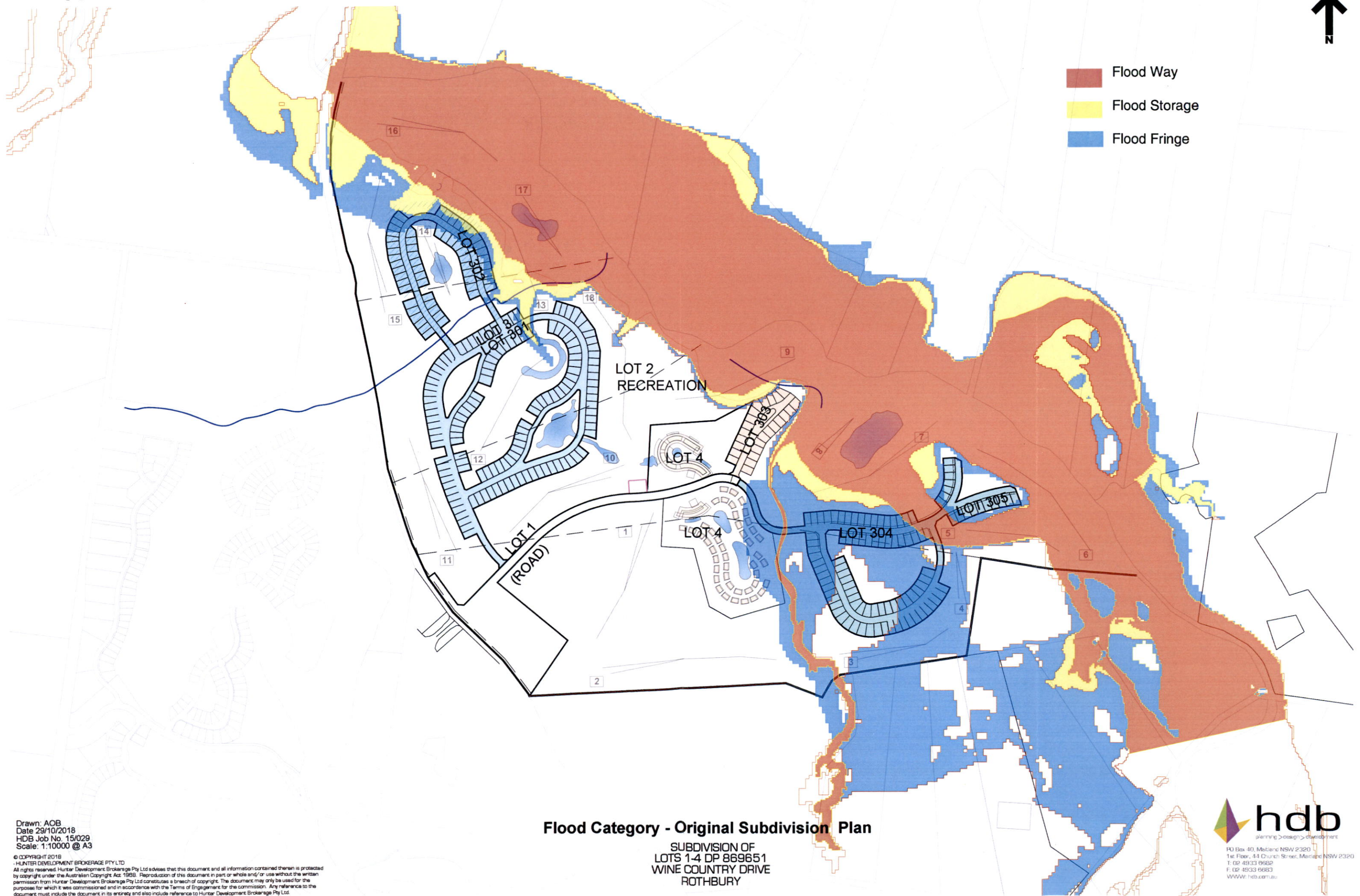
Appendix C – Revised Concept Master Plan & Plan of Subdivision, dated 24/10/2018

Appendix D – Concept fill and culvert location

Appendix E – Extrapolated flood water depths



Appendix A - Hydraulic Category Map



Drawn: AOB
Date 29/10/2018
HDB Job No. 15/029
Scale: 1:10000 @ A3

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Appendix B- Proposed amendment to subdivision layout

McDonalds Road

Black Creek

Black Creek

Wine Country Drive

Proposed Staged Subdivision - Amendment 16.10.2018

PLAN 1, SUBDIVISION OF
LOTS 1-4 DP 869651
WINE COUNTRY DRIVE
ROTHBURY

Drawn: KG
Date 16.10.2018
HDB Job No. 15/029
Scale: 1:10000 @ A3

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Revised layout

Original subdivision layout



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Appendix C - Revised Concept Master Plan

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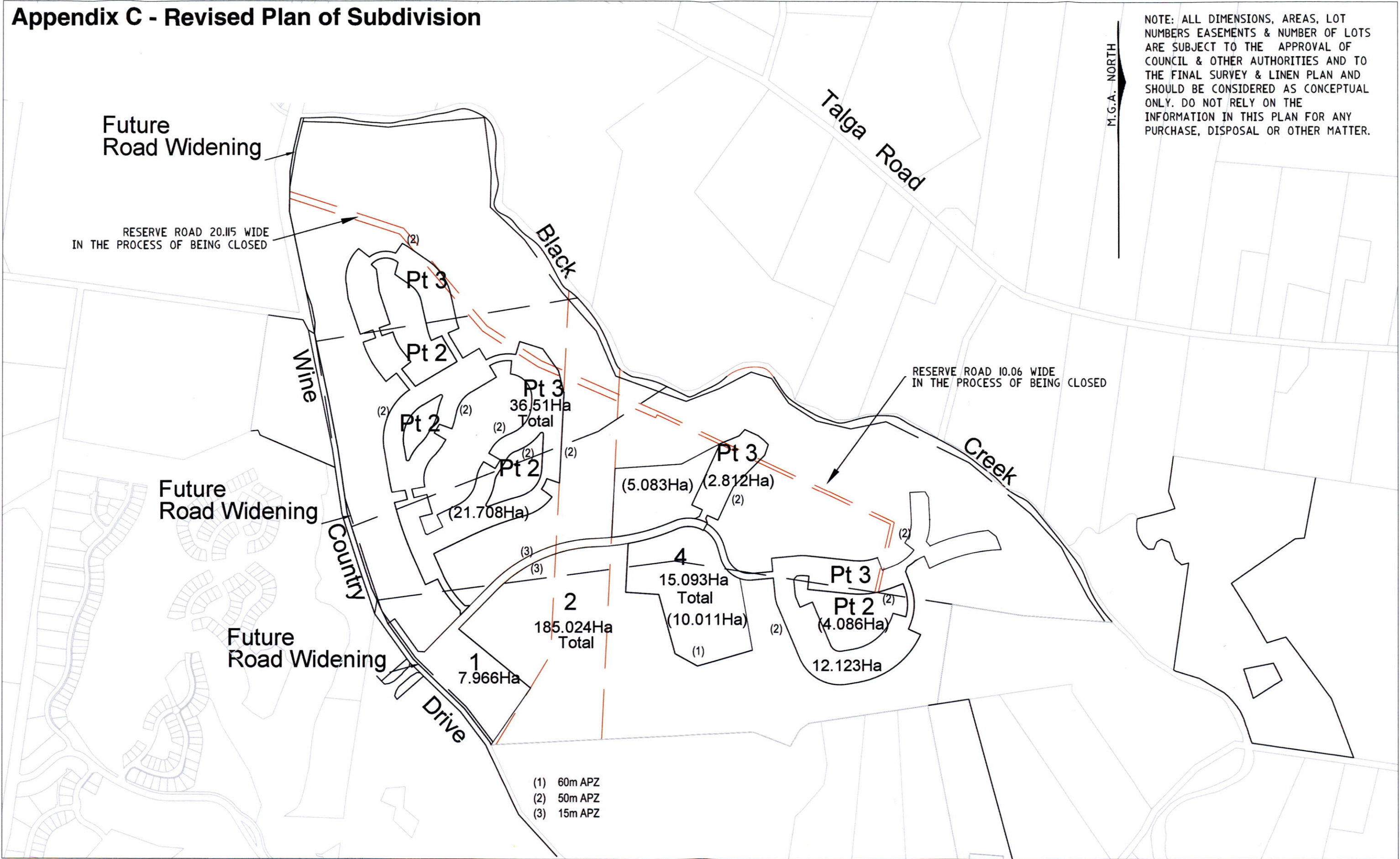
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Concept Masterplan
PLAN 2, SUBDIVISION OF
LOTS 1-4 DP 869651
WINE COUNTRY DRIVE
ROTHBURY

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Appendix C - Revised Plan of Subdivision



Drawn: AOB
Date 24/10/2018
HDB Job No. 15/029
Scale: 1:10000 @ A3

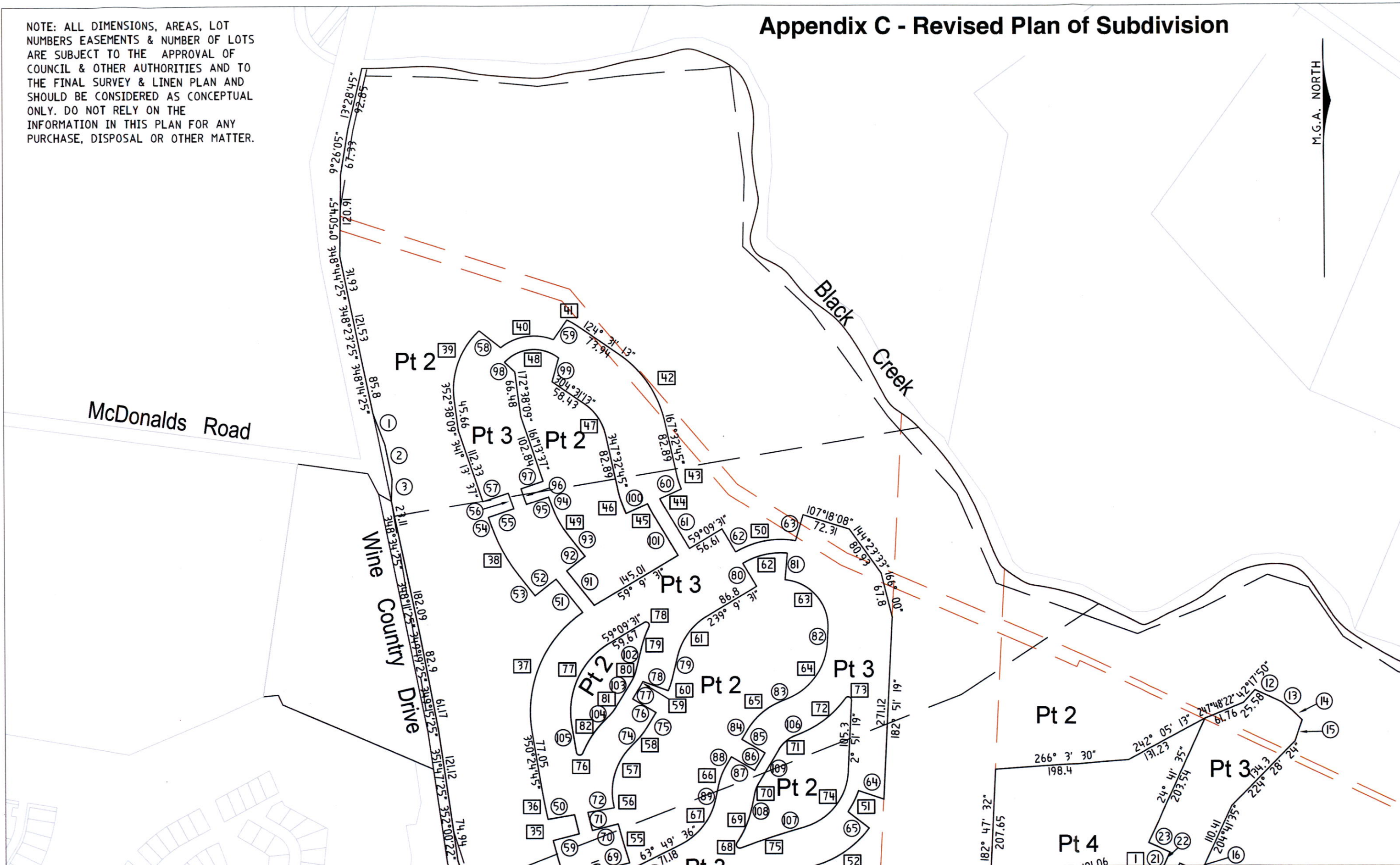
Proposed Plan of Subdivision
Lot 11 DP 1187663 & Lot 2 - 4 DP 869651
Wine Country Drive
Lovedale

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Appendix C - Revised Plan of Subdivision



Drawn: AOB
Date 24/10/2018
HDB Job No. 15/029
Scale: 1:5000 @ A3

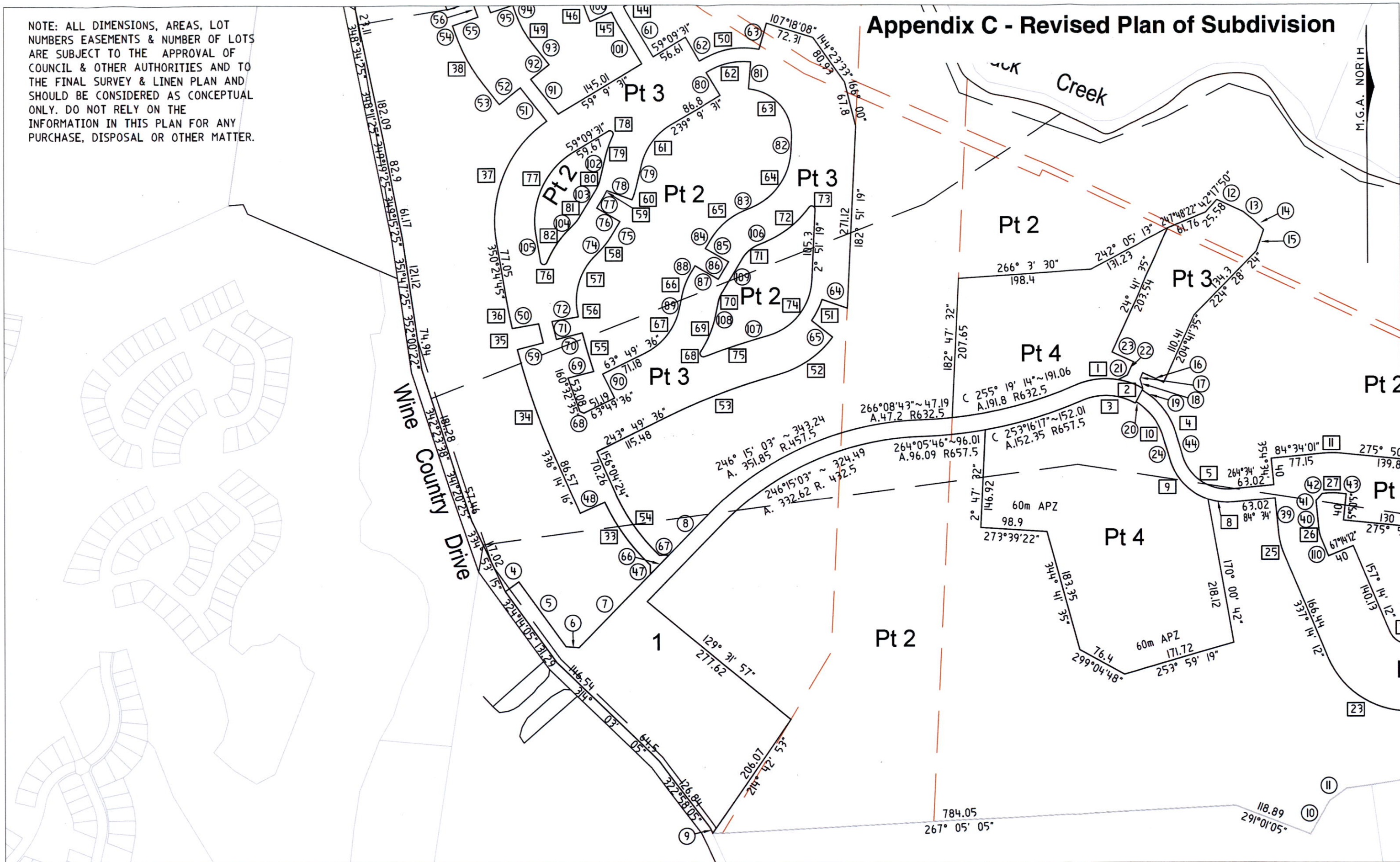
Proposed Plan of Subdivision
Lot 11 DP 1187663 & Lot 2 - 4 DP 869651
Wine Country Drive, Rothbury
Sheet 2 of 5

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Appendix C - Revised Plan of Subdivision



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Proposed Plan of Subdivision
Lot 11 DP 1187663 & Lot 2 - 4 DP 869651
Wine Country Drive, Rothbury
Sheet 3 of 5

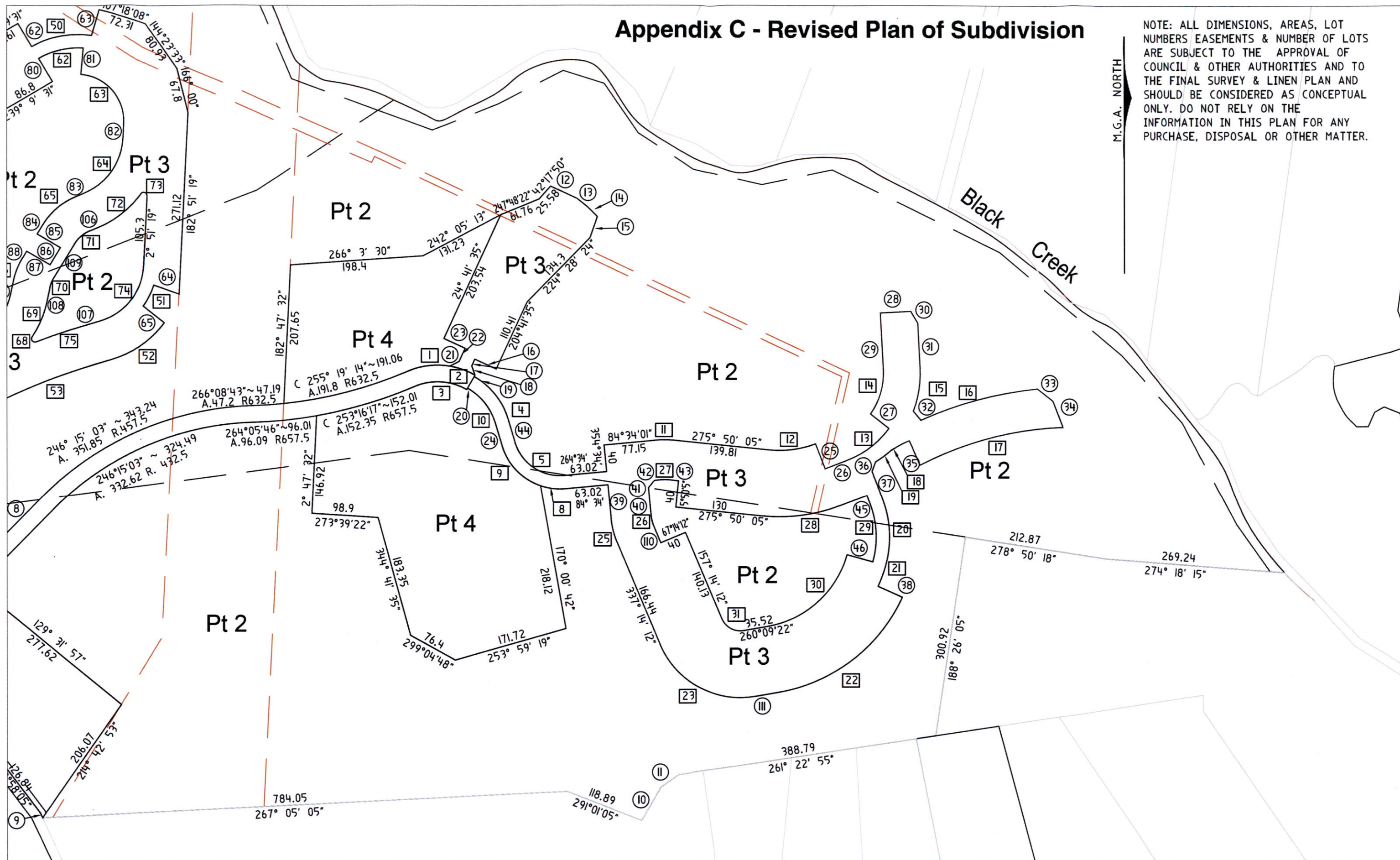
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Appendix C - Revised Plan of Subdivision

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M.G.A. NORTH



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Date 28/10/2018
HDB Job No. 15/029
Scale: 1:5000 @ A3

Proposed Plan of Subdivision
Lot 11 DP 1187663 & Lot 2 - 4 DP 869651
Wine Country Drive, Rothbury
Sheet 4 of 5

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Appendix C - Revised Plan of Subdivision

Short Line Table

Bearing	Distance	Bearing	Distance	Bearing	Distance
① 339° 13' 45" 49.63		④④ 343° 25' 57" 35.94		⑧⑥ 31° 7' 47" 30	
② 348° 34' 25" 52.18		④⑤ 249° 2' 8" 43.68		⑧⑦ 120° 22' 28" 40	
③ 2° 12' 15" 33.31		④⑥ 105° 27' 19" 40		⑧⑧ 31° 7' 47" 13.08	
④ 234° 14' 5" 25		④⑦ 179° 13' 7" 14.14		⑧⑨ 11° 47' 52" 20.32	
⑤ 324° 14' 5" 119.96		④⑧ 245° 54' 40" 40.25		⑨⑩ 333° 49' 36" 40	
⑥ 274° 13' 36" 19.28		④⑨ 75° 41' 57" 40		⑨① 141° 42' 27" 64.36	
⑦ 224° 13' 7" 153		⑤⑩ 260° 3' 9" 40.04		⑨② 231° 42' 27" 35	
⑧ 224° 13' 7" 89.25		⑤① 321° 42' 27" 63.58		⑨③ 141° 42' 27" 39.7	
⑨ 334° 46' 25" 7.77		⑤② 231° 42' 27" 40		⑨④ 160° 39' 7" 13.99	
⑩ 210° 02' 05" 57.14		⑤③ 321° 42' 27" 39.7		⑨⑤ 71° 13' 37" 35	
⑪ 234° 16' 05" 31.94		⑤④ 340° 39' 7" 14.95		⑨⑥ 160° 57' 39" 25	
⑫ 114° 54' 42" 43.19		⑤⑤ 71° 13' 37" 40		⑨⑦ 251° 13' 37" 35	
⑬ 128° 30' 37" 20.11		⑤⑥ 340° 57' 47" 25		⑨⑧ 133° 7' 8" 20.71	
⑭ 134° 28' 24" 20.62		⑤⑦ 251° 13' 37" 40		⑨⑨ 15° 30' 7" 37.02	
⑮ 198° 52' 4" 33.27		⑤⑧ 128° 14' 31" 40.76		⑩⑩ 245° 57' 3" 35	
⑯ 114° 41' 35" 35		⑤⑨ 34° 31' 13" 35.65		⑩① 329° 9' 31" 70.27	
⑰ 24° 41' 35" 10.91		⑥⑩ 245° 57' 3" 35		⑩② 193° 38' 16" 36.02	
⑱ 340° 59' 45" 14.79		⑥① 149° 9' 31" 70.27		⑩③ 211° 7' 47" 48.47	
⑲ 29° 54' 13" 2.5		⑥② 149° 9' 31" 40		⑩④ 44° 25' 14" 14.1	
⑳ 209° 54' 13" 2.5		⑥③ 16° 8' 26" 40.29		⑩⑤ 350° 24' 45" 40.34	
㉑ 63° 17' 58" 15.63		⑥④ 289° 14' 33" 40.15		⑩⑥ 247° 23' 49" 12.87	
㉒ 24° 41' 35" 21.75		⑥⑤ 128° 18' 3" 40.03		⑩⑦ 73° 34' 50" 21.13	
㉓ 294° 41' 35" 35		⑥⑥ 268° 28' 28" 14.33		⑩⑧ 191° 47' 52" 20.32	
㉔ 163° 25' 57" 35.94		⑥⑦ 44° 13' 7" 40.26		⑩⑨ 211° 7' 47" 58.23	
㉕ 159° 02' 08" 40		⑥⑧ 114° 13' 55" 6.37		⑪⑩ 157° 14' 12" 26.31	
㉖ 69° 02' 08" 34.43		⑥⑨ 255° 41' 57" 39.72		⑪① 260° 9' 22" 35.52	
㉗ 308° 18' 18" 35.03		⑦⑩ 75° 41' 57" 39.79			
㉘ 357° 04' 01" 84.96		⑦① 166° 21' 17" 27.66			
㉙ 87° 4' 1" 45.32		⑦② 260° 3' 9" 39.91			
㉚ 148° 50' 05" 20.46		⑦③ 347° 15' 51" 2.64			
㉛ 357° 4' 1" 66.94		⑦④ 224° 25' 14" 14.1			
㉜ 139° 51' 47" 17.63		⑦⑤ 211° 7' 47" 25.83			
㉝ 128° 08' 55" 29.41		⑦⑥ 120° 22' 28" 39.97			
㉞ 339° 2' 8" 42.08		⑦⑦ 211° 2' 24" 23.17			
㉟ 336° 31' 27" 40.1		⑦⑧ 290° 0' 2" 40.1			
㊱ 19° 50' 57" 15.18		⑦⑨ 193° 38' 16" 36.02			
㊲ 339° 13' 38" 44.85		⑧⑩ 149° 9' 31" 40			
㊳ 294° 19' 9" 40		⑧① 4° 58' 43" 40			
㊴ 354° 34' 1" 51.44		⑧② 2° 51' 19" 20.54			
㊵ 174° 34' 1" 41.44		⑧③ 67° 23' 49" 12.87			
㊶ 219° 34' 1" 14.14		⑧④ 31° 7' 47" 15.15			
㊷ 264° 34' 1" 7.15		⑧⑤ 300° 22' 28" 40			
㊸ 275° 50' 5" 11.35					

Curve Table

Bearing	Distance	Arc	Radius	Bearing	Distance	Arc	Radius
1 262° 59' 45" ~63.39		64.26	112.5	50 259° 28' 50"	90.3	91.22	130
2 289° 37' 51" ~40.13		40.34	112.5	51 26° 33' 58"	35.13	35.28	110
3 273° 16' 7" ~78.45		81.35	87.5	52 55° 0' 26"	95.56	97.25	150
4 321° 40' 5" 81.57		83.57	110	53 69° 16' 2"	182.59	161.72	950
5 303° 59' 59" 88.92		96.35	70	54 324° 55' 6"	112.26	112.97	290
6				55 163° 53' 19"	60.03	60.04	950
7				56 167° 15' 51"	2.64	2.64	950
8 96° 43' 18" 37.9		38.18	90	57 195° 52' 55"	90.77	94.64	95
9 136° 9' 16" 82.5		85.7	90	58 217° 46' 31"	24.3	24.36	105
10 141° 40' 5" 66.74		68.37	90	59 208° 6' 60"	6.83	6.84	65
11 270° 28' 51" 30.99		31.04	150.79	60 198° 23' 51"	17.42	17.44	105
12 262° 26' 6" 69.52		70.16	150	61 216° 23' 53"	73.51	75.48	95
13 232° 36' 79.22		80.32	140	62 257° 8' 5"	67.9	69.02	110
14 196° 15' 32" 69.03		70.34	105	63 319° 1' 16"	96.96	107.11	70
15 8° 54' 56" 65.7		66.18	160	64 35° 7' 34"	101.45	107.01	95
16 254° 54' 47" 180.38		181.17	560	65 49° 15' 48"	65.36	66.46	105
17 75° 05' 15" 221.23		223.08	500	66 21° 27' 50"	35.26	35.43	105
18 240° 53' 38" 32.52		32.61	121.27	67 37° 48' 44"	83.33	86.27	95
19 53° 45' 16" 27.48		27.51	160	68 141° 27' 38"	9.53	12.63	5
20 357° 20' 29" 99.49		101.17	160	69 202° 49' 16"	57.36	57.73	150
21 20° 1' 51" 33.5		33.54	210	70 201° 27' 49"	16.79	12.83	5
22 52° 21' 30" 233.18		242.58	250	71 229° 15' 48"	31.12	31.65	50
23 118° 41' 47" 162		174.89	130	72 231° 37' 27"	81.55	82.59	150
24				73 289° 21' 11"	9.59	12.83	5
25 345° 54' 6" 36.16		36.3	120	74 38° 13' 4"	104.17	111.09	90
26 165° 54' 6" 18.08		18.15	60	75 71° 19' 43"	79.37	79.39	1010
27 270° 12' 3" 17.67		17.7	90	76 96° 29' 22"	9.61	12.9	5
28 262° 26' 6" 115.87		116.93	250	77 204° 47' 8"	135.5	143.98	120
29 357° 20' 29" 87.05		88.52	140	78 312° 39' 37"	9.59	12.83	5
30 47° 48' 21" 160.53		169.39	150	79 19° 54' 1"	32.72	32.79	150
31 118° 41' 47" 37.38		39.65	30	80 22° 23' 2"	15.21	15.26	50
32				81 37° 46' 31"	11.57	11.6	50
33 144° 31' 27" 115.66		116.33	310.78	82 33° 29' 37"	56.87	57.21	150
34 160° 53' 11" 176.2		176.4	1050				
35 166° 31' 38" 29.19		29.19	1010				
36 168° 56' 7" 54.14		54.15	1050				
37 203° 3' 21" 194.19		205.10	180				
38 151° 10' 47" 82.29		82.66	250				
39 199° 56' 8" 110.07		114.35	120				
40 261° 35' 58" 79.51		83.21	80				
41 299° 58' 34" 18.22		18.24	115				
42 326° 1' 59" 121.01		123.9	165				
43 341° 44' 54" 21.21		21.25	105				
44 332° 33' 17" 16.59		16.6	140				
45 152° 33' 17" 18.96		18.97	160				
46 161° 44' 54" 39.39		39.46	195				
47 146° 1' 59" 55.01		56.32	75				
48 85° 24' 42" 80.9		85.24	60				
49 331° 10' 47" 51.02		51.25	155				
50 259° 28' 50" 90.3		91.22	130				

Drawn: AOB
Date 24/10/2018
HDB Job No. 15/029
Scale: NTS @ A3

Proposed Plan of Subdivision
Lot 11 DP 1187663 & Lot 2 - 4 DP 869651
Wine Country Drive, Rothbury
Sheet 5 of 5

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Appendix D - Concept Fill & Culvert Design

1

FLOOD INFORMATION FROM THE
 BLACK CREEK FLOOD STUDY
 PREPARED FOR CESSNOCK CITY
 COUNCIL

NOTE: ALL HABITABLE FLOOR
 LEVELS SHOULD BE A MINIMUM
 OF 500mm ABOVE THE 1% AEP
 LEVEL.

Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-1.23	0.00	
2	0.00	0.50	
3	0.50	1.00	
4	1.00	1.50	
5	1.50	2.00	

Bridge to allow
 100 Year Flow

Proposed Staged Subdivision

Area Fill Plan
 LOTS 1-4 DP 869651
 WINE COUNTRY DRIVE
 ROTHBURY

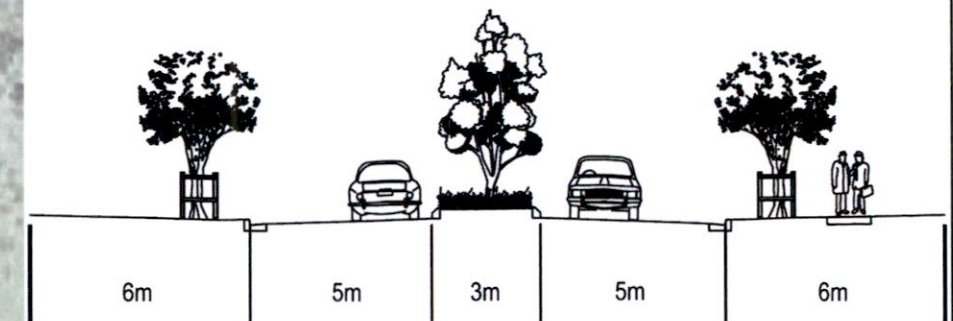
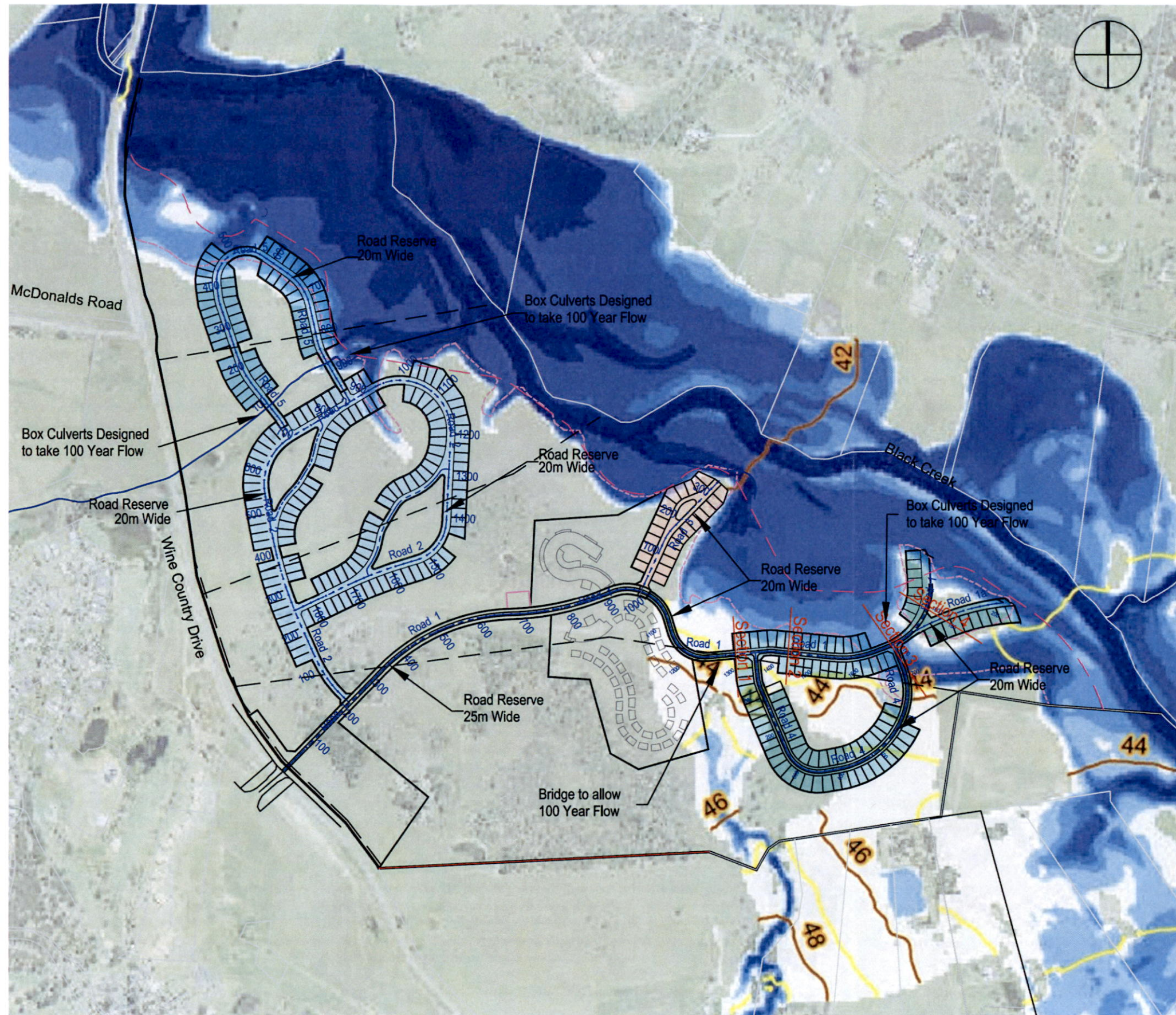
100 ARI YEAR FLOOD CONTOUR EXTENT
 ACOR CONSULTANTS 01.03.05

Plan No - 1 of 1
 Scale - 1:4000 @ A3
 Date - 26/10/2017
 File - 15/029
 Revision - D
 Drawn - AOB

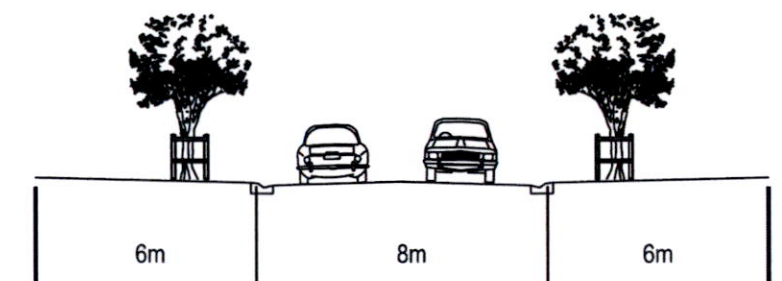
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Appendix D - Concept Road Layout



Typical Section 25m Road Reserve



Typical Section 20m Road Reserve

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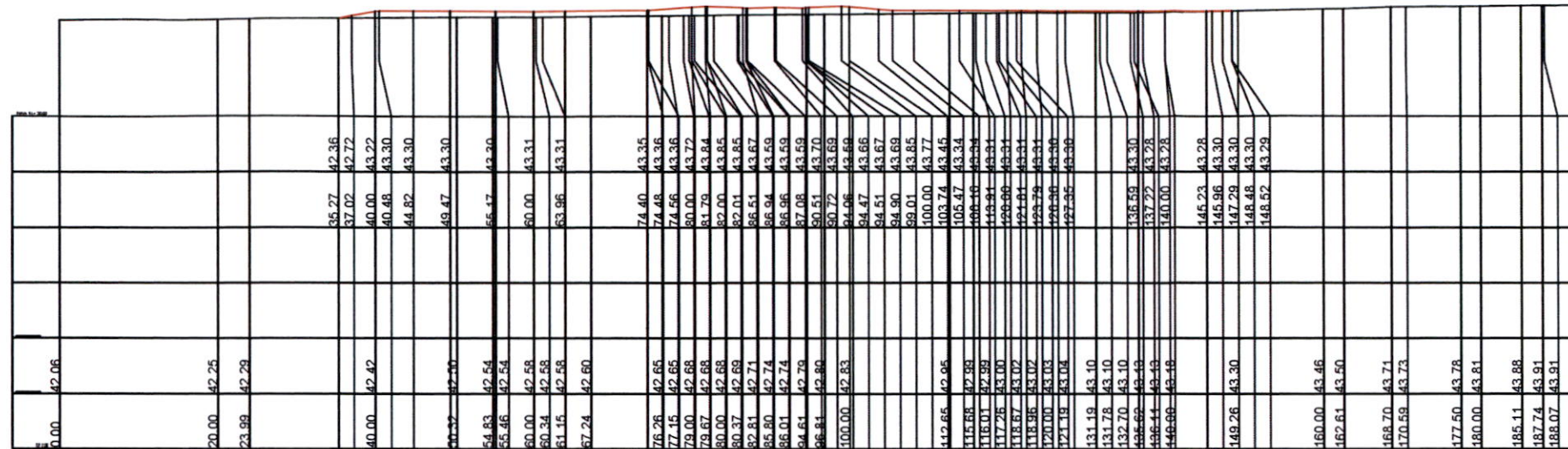
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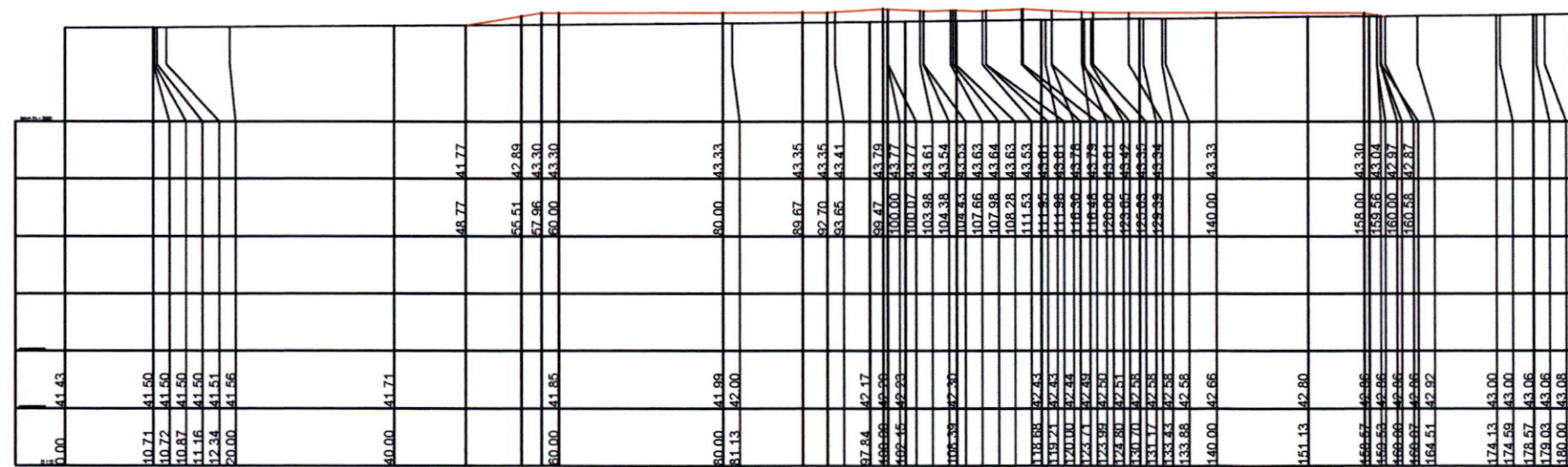
Proposed Road Layout Plan
PLAN 2, SUBDIVISION OF
LOTS 1-4 DP 869651
WINE COUNTRY DRIVE
ROTHBURY

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Section 1



Section 2

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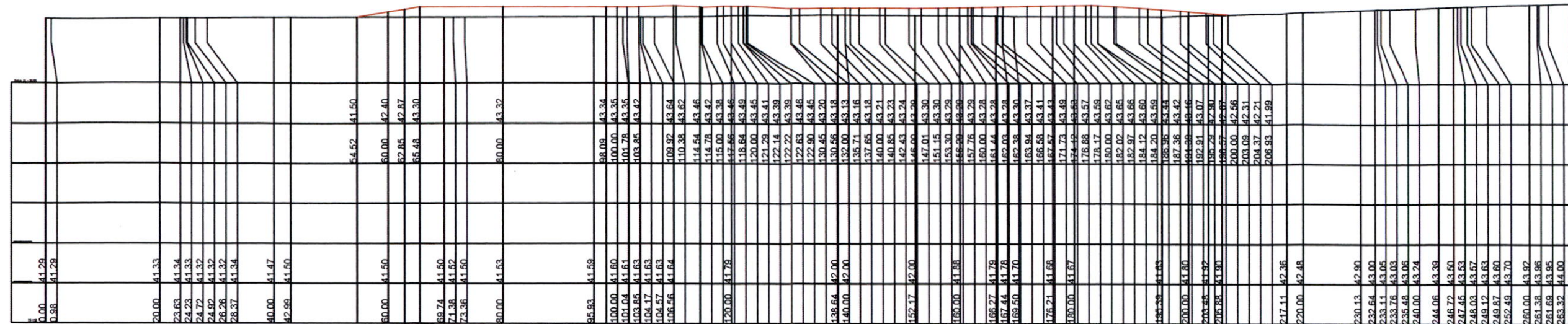
Proposed Fill Sections - Sheet 1

PLAN 2, SUBDIVISION OF
LOTS 1-4 DP 869651
WINE COUNTRY DRIVE
ROTHBURY

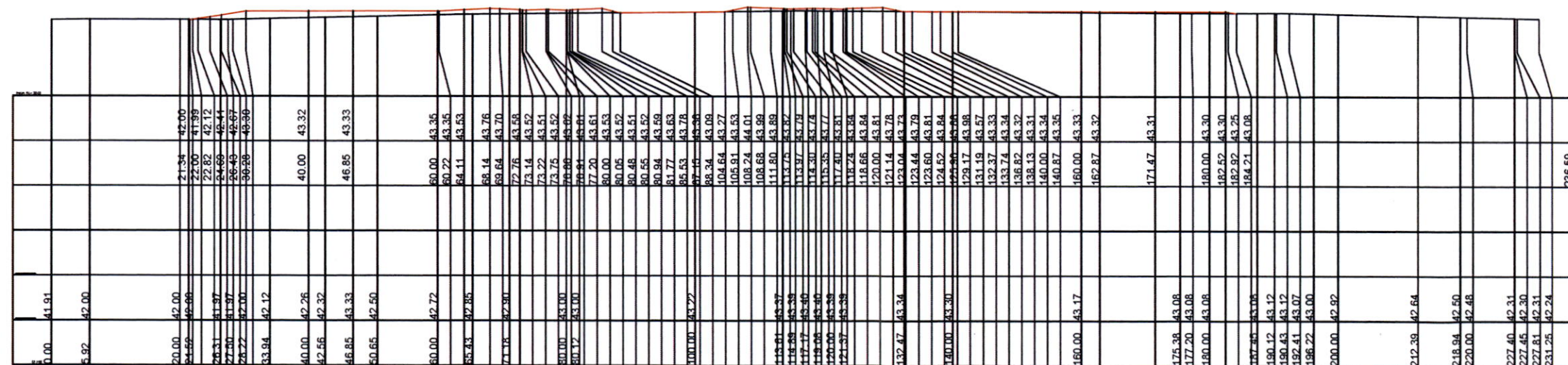
7/11/2017

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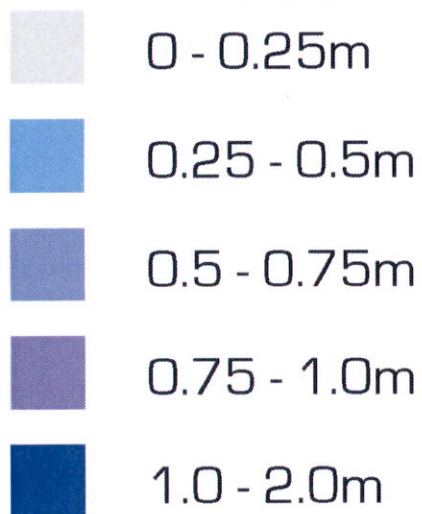
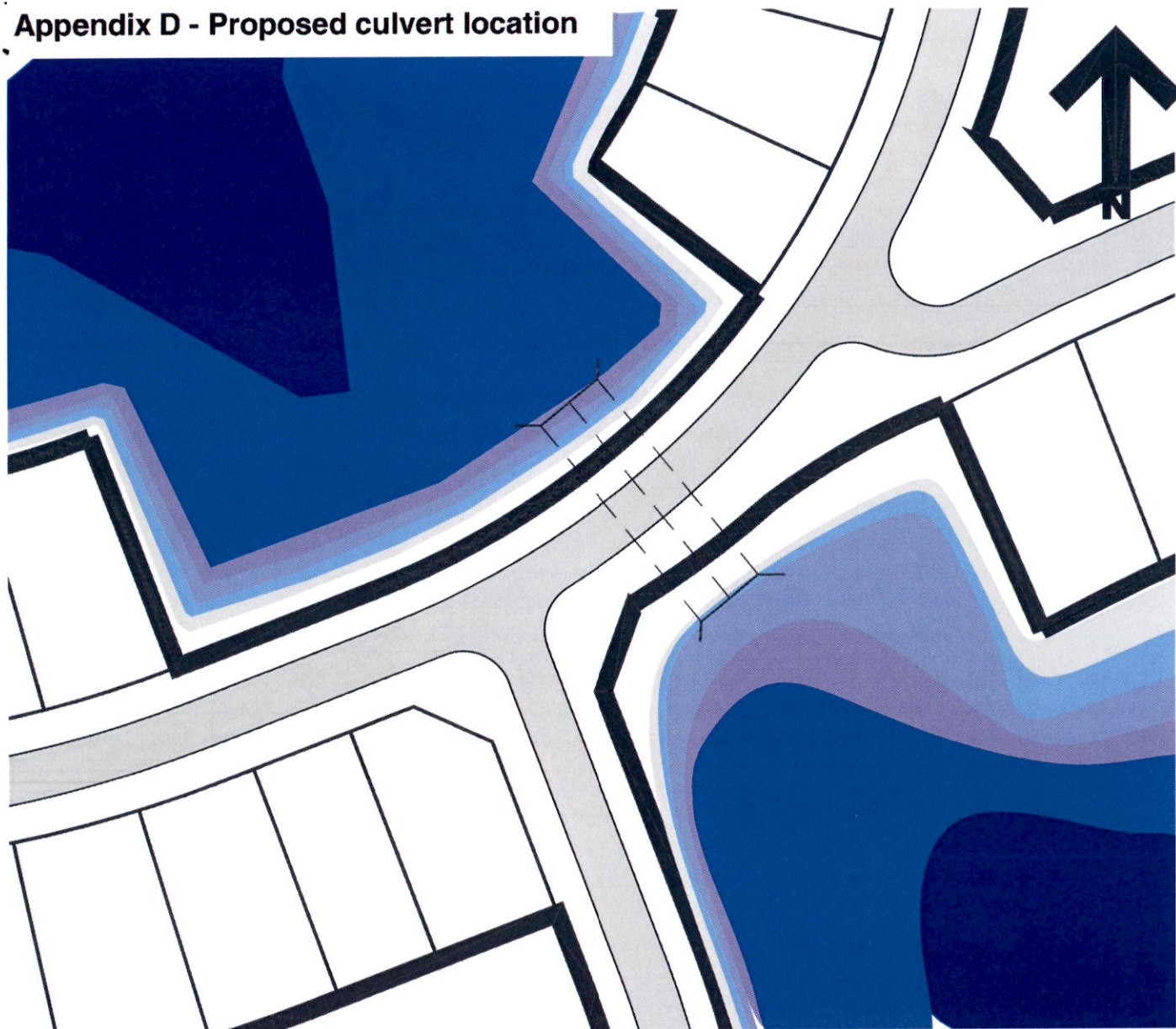


Section 3



Section 4

Appendix D - Proposed culvert location



Drawn: AOB
Date 23/10/2018
HDB Job No. 15/029
Scale: 1:10000 @ A3

Anticipated water depths 1% AEP

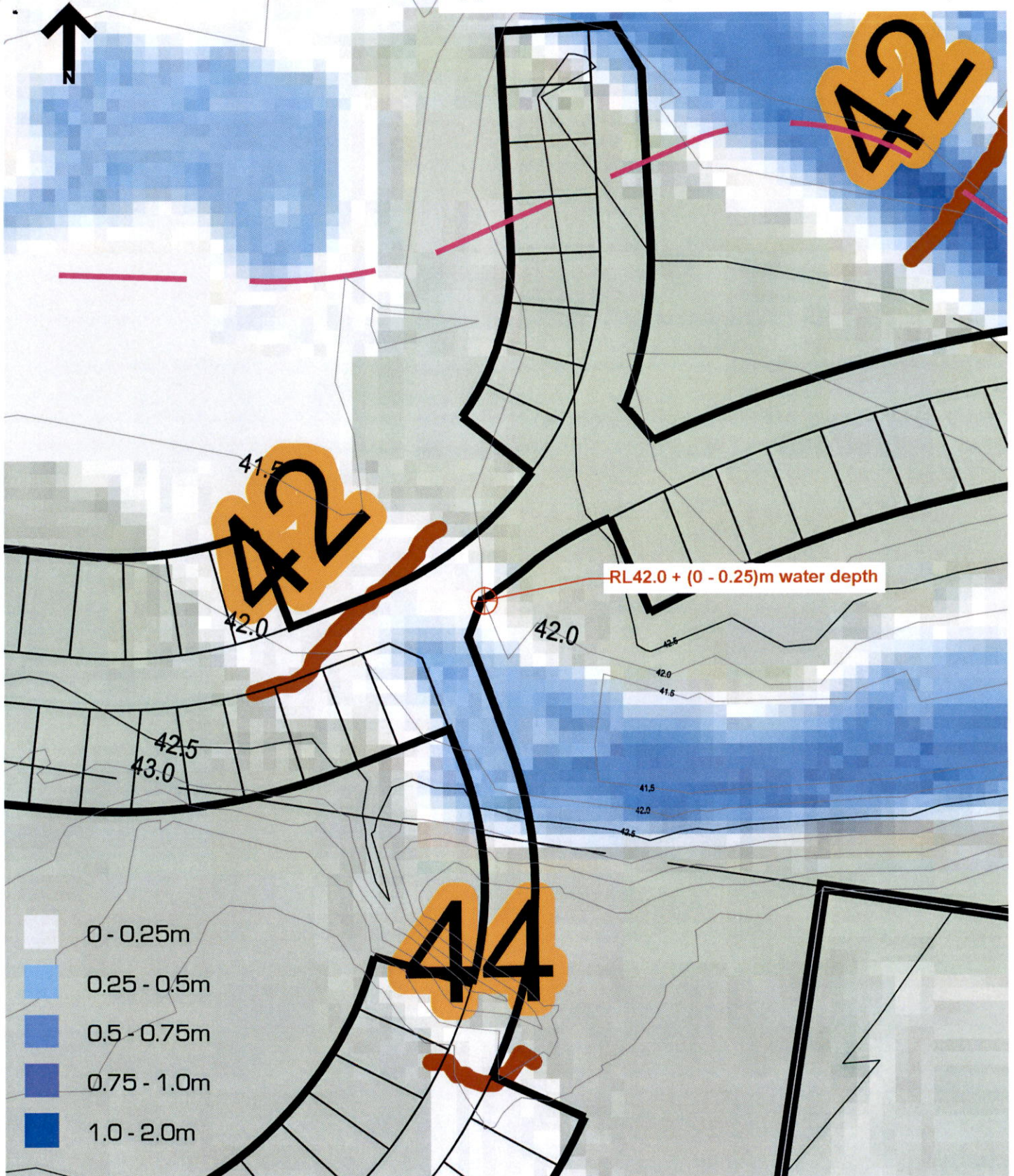
LOTS 1-4 DP 869651
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Appendix E - Extrapolated Flood Water Depths



Extrapolated Flood Water Depth

20% AEP event (1 into 5 yr)

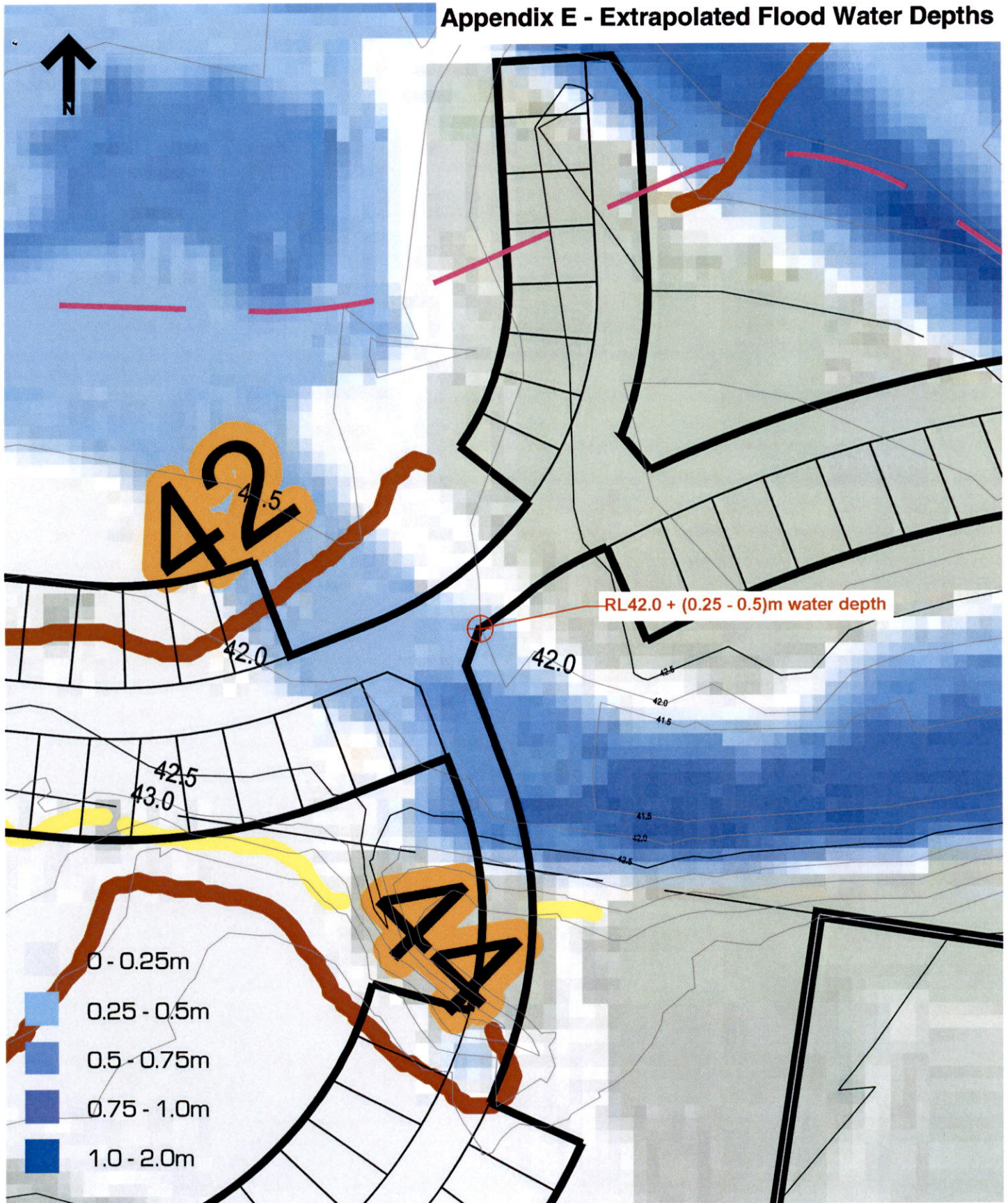
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Date 18.03.2016
HDB Job No. 15/029
Scale: 1:10000 @ A3

LOTS 1-4 DP 869651 WINE COUNTRY
DRIVE ROTHBURY



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Appendix E - Extrapolated Flood Water Depths



Extrapolated Flood Water Depth

10% AEP event (1 into 10 yr)

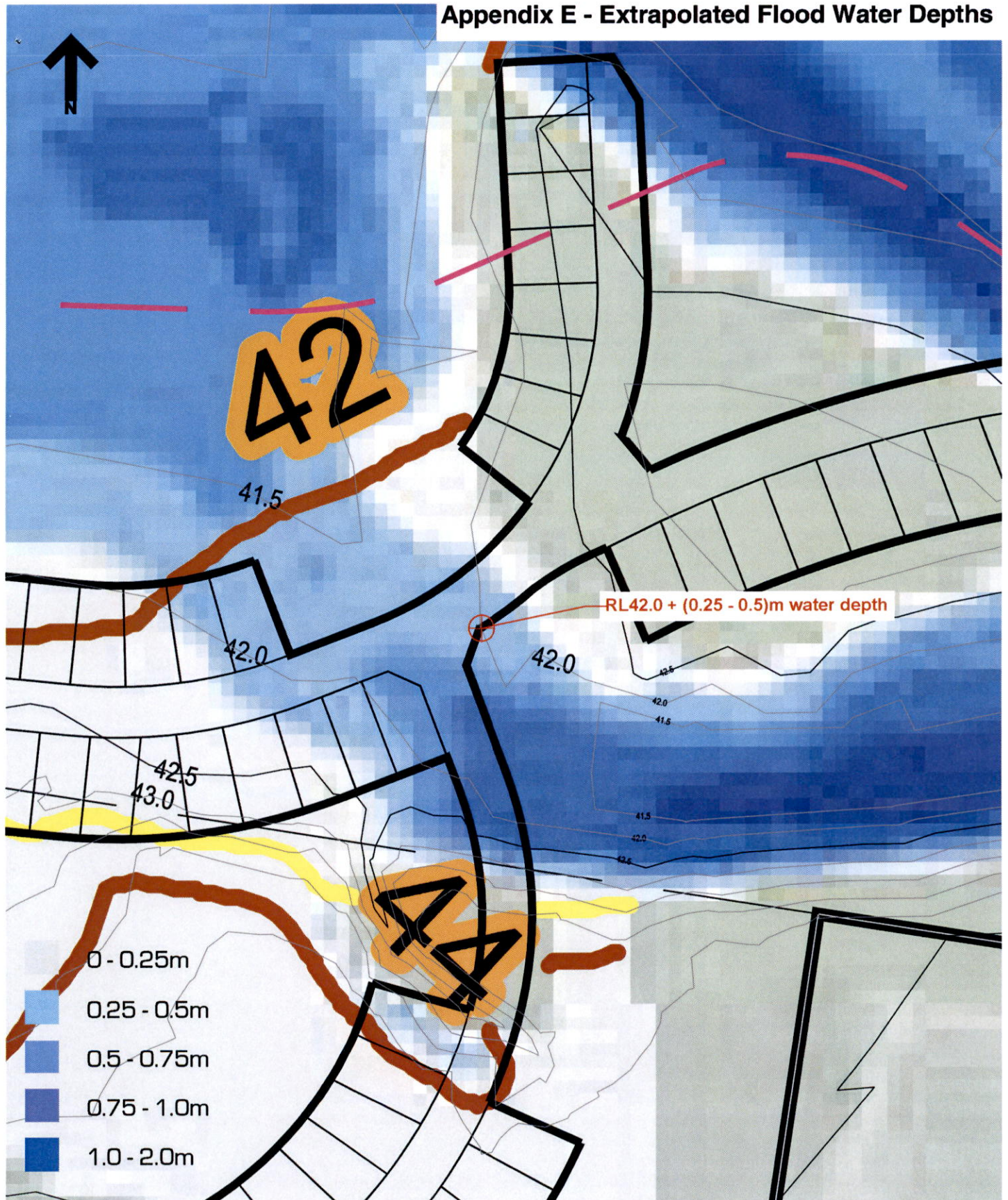
LOTS 1-4 DP 869651 WINE COUNTRY
DRIVE ROTHBURY

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Date 18.03.2016
HDB Job No. 15/029
Scale: 1:10000 @ A3



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Appendix E - Extrapolated Flood Water Depths



Extrapolated Flood Water Depth
5% AEP event (1 into 20 yr)

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WINE COUNTRY DRIVE
ROTHBURY

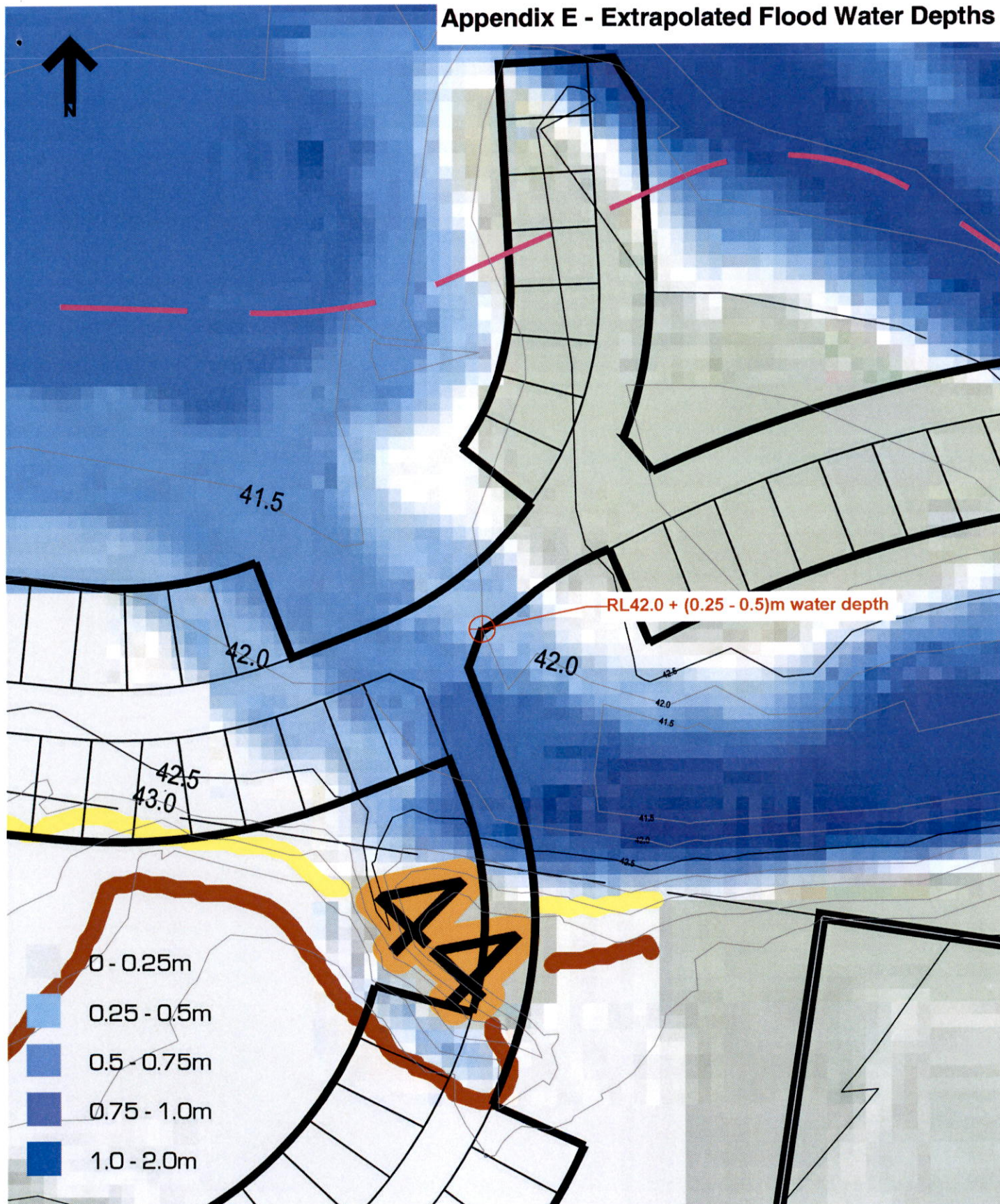
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Date 18.03.2016
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Scale: 1:10000 @ A3



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Appendix E - Extrapolated Flood Water Depths



Extrapolated Flood Water Depth
2% AEP event (1 into 50 yr)

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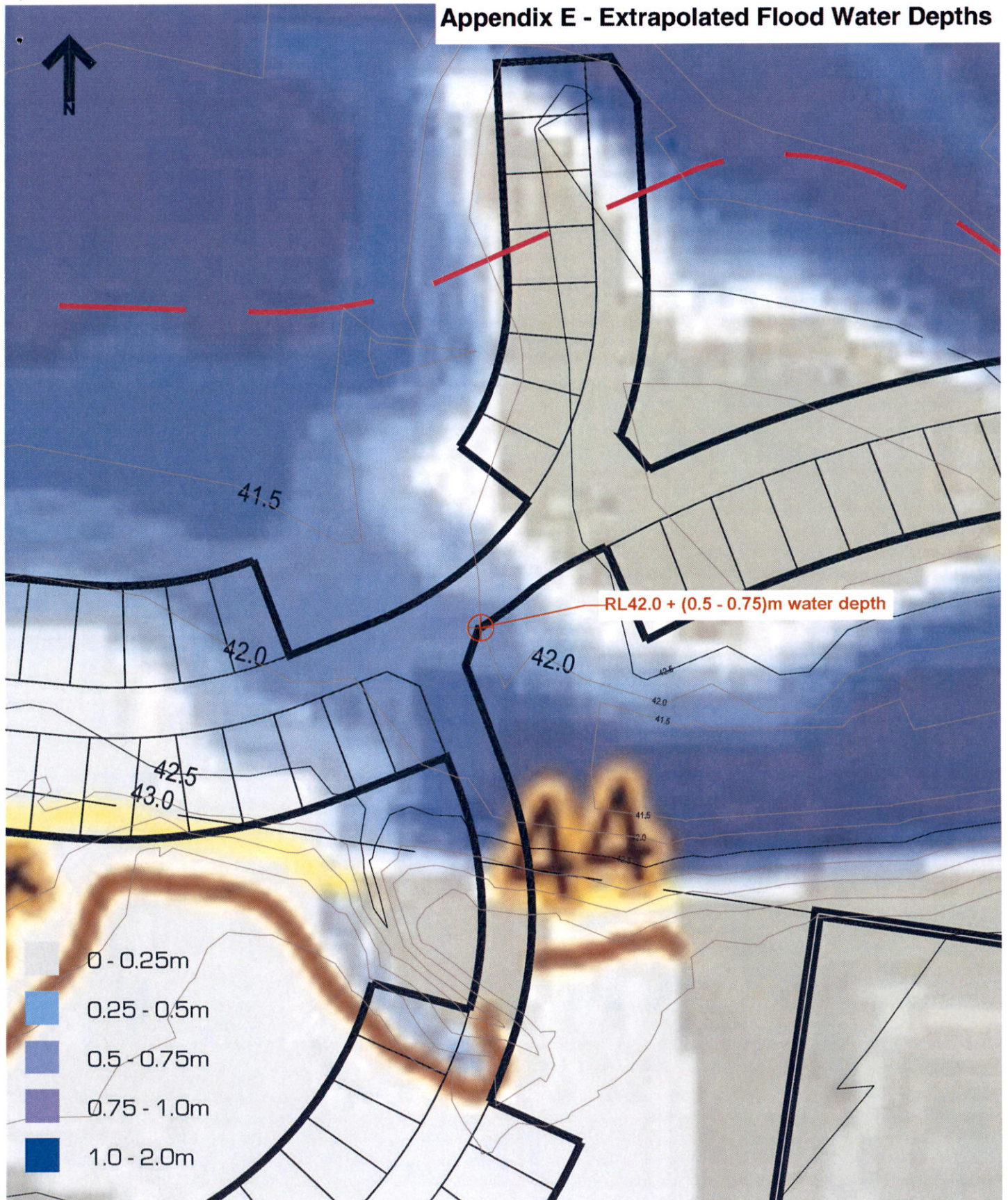
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Appendix E - Extrapolated Flood Water Depths



Extrapolated Flood Water Depth
1% AEP event (1 into 100 yr)

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WINE COUNTRY DRIVE
ROTHBURY

Drawn: AOB
Date 18.03.2016
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Scale: 1:10000 @ A3



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