

Cabra Properties Ltd

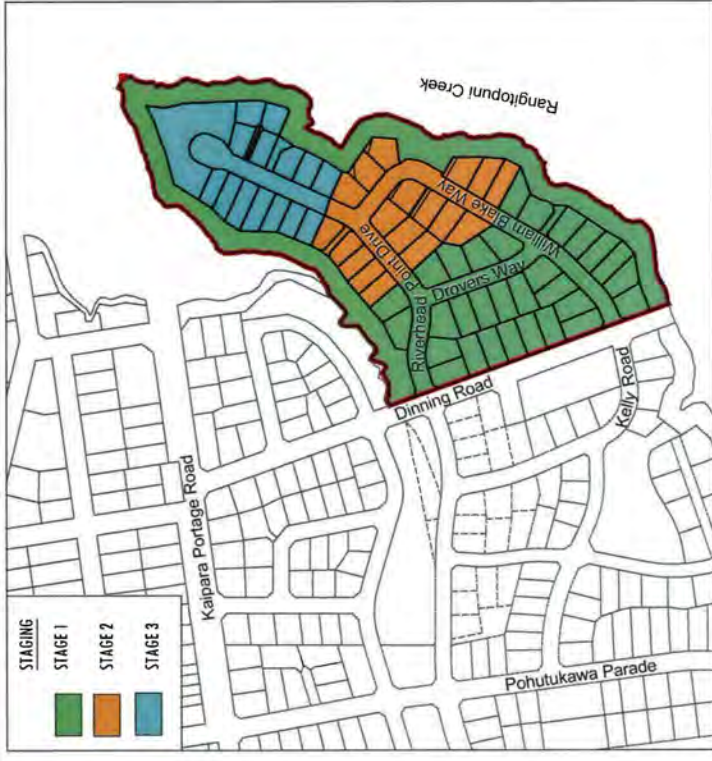
Deacon Point

Stage 3

Dinning Road, Riverhead

AS BUILT PLAN SET - 34147 Stages 3

E000	Cover Sheet
E635	Final Contours
E636	Cut Fill
E637	Roading
E638	Wastewater Reticulation
E639	Stormwater Reticulation - Sheet 1 of 2
E640	Stormwater Reticulation - Sheet 2 of 2
E641	Water Reticulation
E642	Stormwater Drainage Zone of Influence Plan



LOCATION DIAGRAM

Scale 1:5,000

CATO BOLAM CONSULTANTS
 PLANNERS | SURVEYORS | ENGINEERS | ENVIRONMENTAL

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R67504
 ENG60065935

As Built Plans - November 2017

APPROVED	DATE	NAME	DATE
CHECKED	DATE	NAME	DATE
DRAWN	DATE	NAME	DATE
DESIGNED	DATE	NAME	DATE
SURVEYED	DATE	NAME	DATE
REVISION (FOR EXPLANATIONS)	NAME	DATE	

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As Built Earthworks Legend

- Extent of Earthworks
- Bottom of Bank
- Top of Bank
- As built Contour (0.5m Interval)
- As built Contour (1m Interval)

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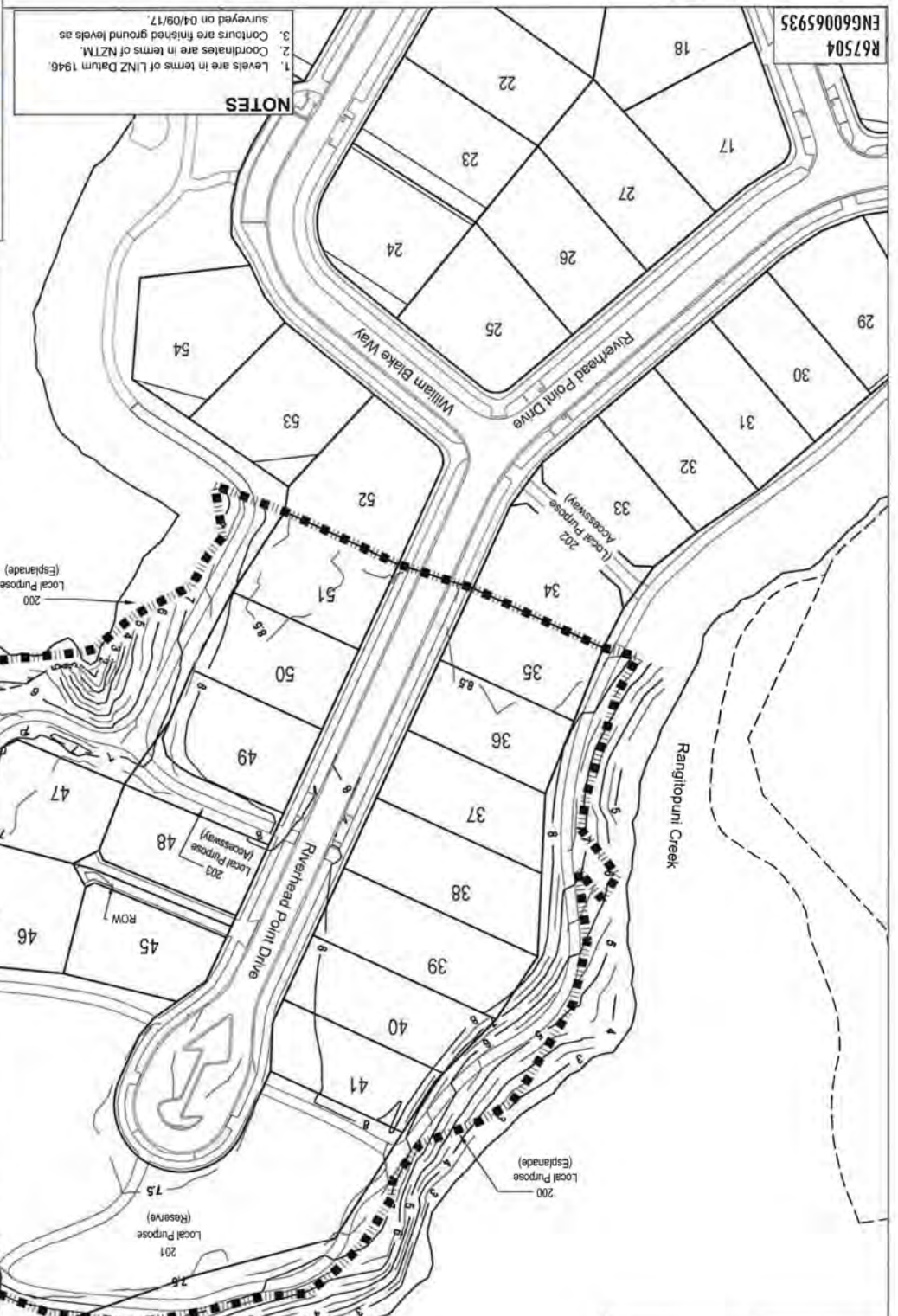
CLIENT	DRAWING TITLE
Cobra Properties Ltd	Stage 3: Final Contours As Built Plan

NOTES

- Levels are in terms of LINZ Datum 1946.
- Contours are finished ground levels as surveyed on 04/09/17.
- Contours are finished ground levels as surveyed on 04/09/17.

JOB NO	DIRECTOR
34147	
SHEET NO	DATE
6635	24/11/17
REGION NO	CAD REFERENCE
A3	34147 6635
ORIGINAL SCALE	ORIGINAL SIZE
1:1000	A3

DATE	NAME	DATE
11/17	AA	11/17
11/17	BA	11/17
11/17	CA	11/17
11/17	DA	11/17
11/17	EA	11/17



Signed: _____
 Licensed Cadastral Surveyor
 Date: 12/1/18
 Name: Bradley Mowat
 Phone: 09 427 0072
 Email: catobolam@catobolam.co.nz

I certify that these As-Built Plans are an accurate record of the works undertaken and that:
 The Coordinates (X;Y) are in terms of NZTM on NZGD(2000), and are within ± 50mm.
 The Levels (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ± 25mm.

REVISION NO	34147
SHEET NO	17
DATE	24/11/17
DIRECTOR	ZLINDA JACOBSON, Stage 3

ORIGINAL SIZE	1:1000
SCALE	A3
CAD REFERENCE	

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- GENERAL NOTES**
- 1. Coordinates are in terms of NZTM.
 - 2. All infrastructure is public unless otherwise shown.
 - 3. Cut/fill contours are from the original ground level, plus underts, to finished ground level as surveyed on 04/09/17.

DRAWING TITLE: Stage 3: Cut Fill As Built Plan

CLIENT: Cabra Properties Ltd
 Dining Road, Riverhead

DRAWING NO: ENG60065935

PROJECT NO: R67504



APPROVED	
CHECKED	
DRAWN	
DESIGNED	
SURVEYED	
PREPARED (DESCRIPTION)	
NAME	
DATE	
DATE	
DATE	

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 The Levels (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSL datum), and are within ± 25mm.

Cut to Fill Legend

- 0 — 0 Contour
- 10m Cut Contours & Area
- 10m Fill Contours & Area
- Extent of Earthworks

Signed: *[Signature]*
 Licensed Cadastral Surveyor
 Date: 12/01/18
 Name: Bradley Mowat
 Phone: 09 427 0072
 Email: catobolam@catobolam.co.nz



NOTES

GENERAL

- Levels are in terms of LINZ Datum 1946.
- Coordinates are in terms of NZTM.
- All infrastructure is public unless otherwise shown.

Pavement Formation

Road

Subgrade - Stabilised with 10kg/m² lime and 10kg/m² cement to a depth of 250mm

Subbase - 250mm G4-P65

Basecourse - 100mm TNZ AP40

Seal - 30mm hotmix on grade 4 chipseal membrane

Kerb & channel

machines laid low profile mountable kerb

Vehicle Crossing & Right of Way

150mm 20MPa concrete, one layer of 665 mesh on 100mm G4-P65 subbase. Right of Way includes 4kg/m² of black oxide and exposed finished surface.

Road Footpaths

1.8m wide, 125mm 20MPa concrete on 30mm AP25 bedding

Explanade Footpaths

2.5m wide, 125mm 20MPa concrete on 30mm AP25 bedding

Street Lights (Riverhead Point Drive)

Street Lights Cree XSP1 IP66 T3WE 29W system 4000K on Vignole Round Tapered poles at 6m high and 1m arm 0 degree tilt. (700mm setback). (G-80, Candaeas-282)

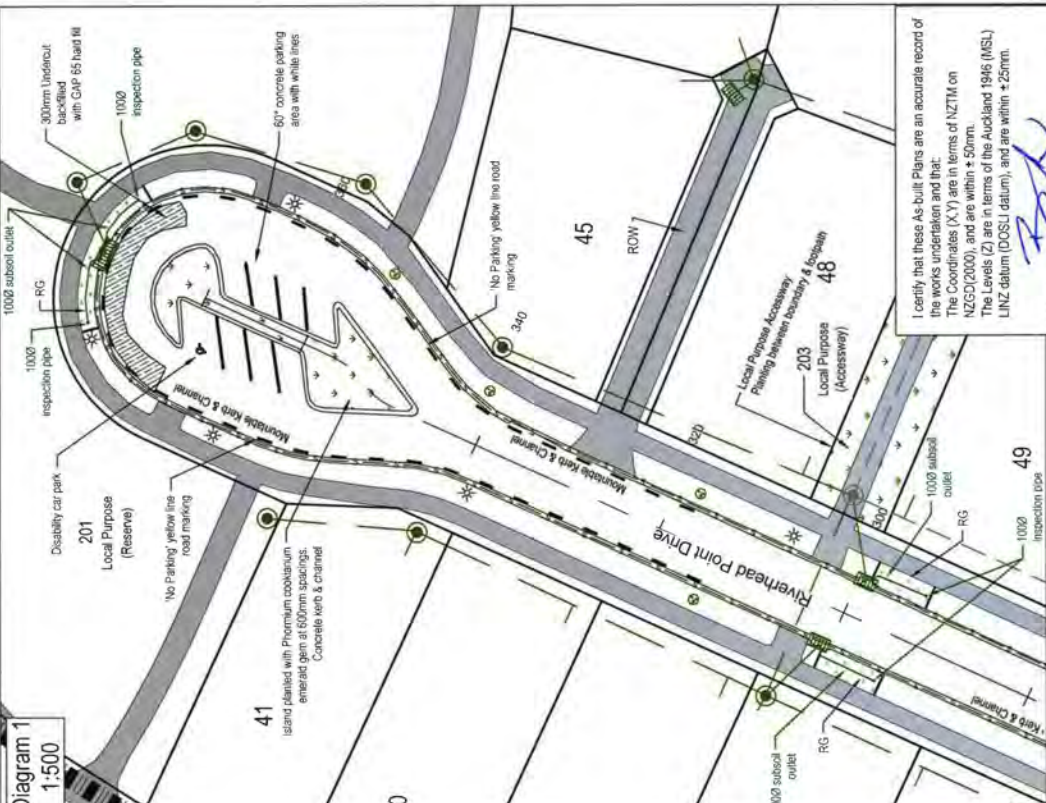
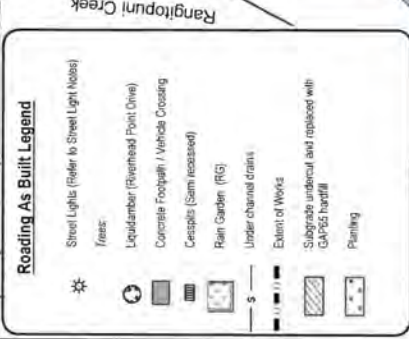


Diagram 1
1:500

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Signed: *[Signature]*
 Licensed Cadastral Surveyor

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ORIGINAL SCALE	1:1000	REVISION NO	A3
DATE	24/11/2017	SHEET NO	E637
DIRECTORY	34147/2017	JOB NO	34147

Stage 3: Rooding As Built Plan

Cabra Properties Ltd
Deacon Point
Stage 3
Dinning Road, Riverhead

CLIENT

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REVISION (DESCRIPTIONS)	NAME	DATE
SUBMITTED	NAME	DATE
DESIGNED	LD & BJ	10/17
DRAWN	AA	11/17
CHECKED	BM	11/17
APPROVED	TL	11/17

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REVISION DESCRIPTIONS	
NO.	DESCRIPTION
1	ISSUED
2	DESIGNED
3	DRAWN
4	CHECKED
5	APPROVED

CLIENT
Cobra Properties Ltd
 Stage 3
 Deacon Point
 Dining Road, Riverhead

DRAWING TITLE
**Stage 3:
 Wastewater Retention
 As Built Plan**

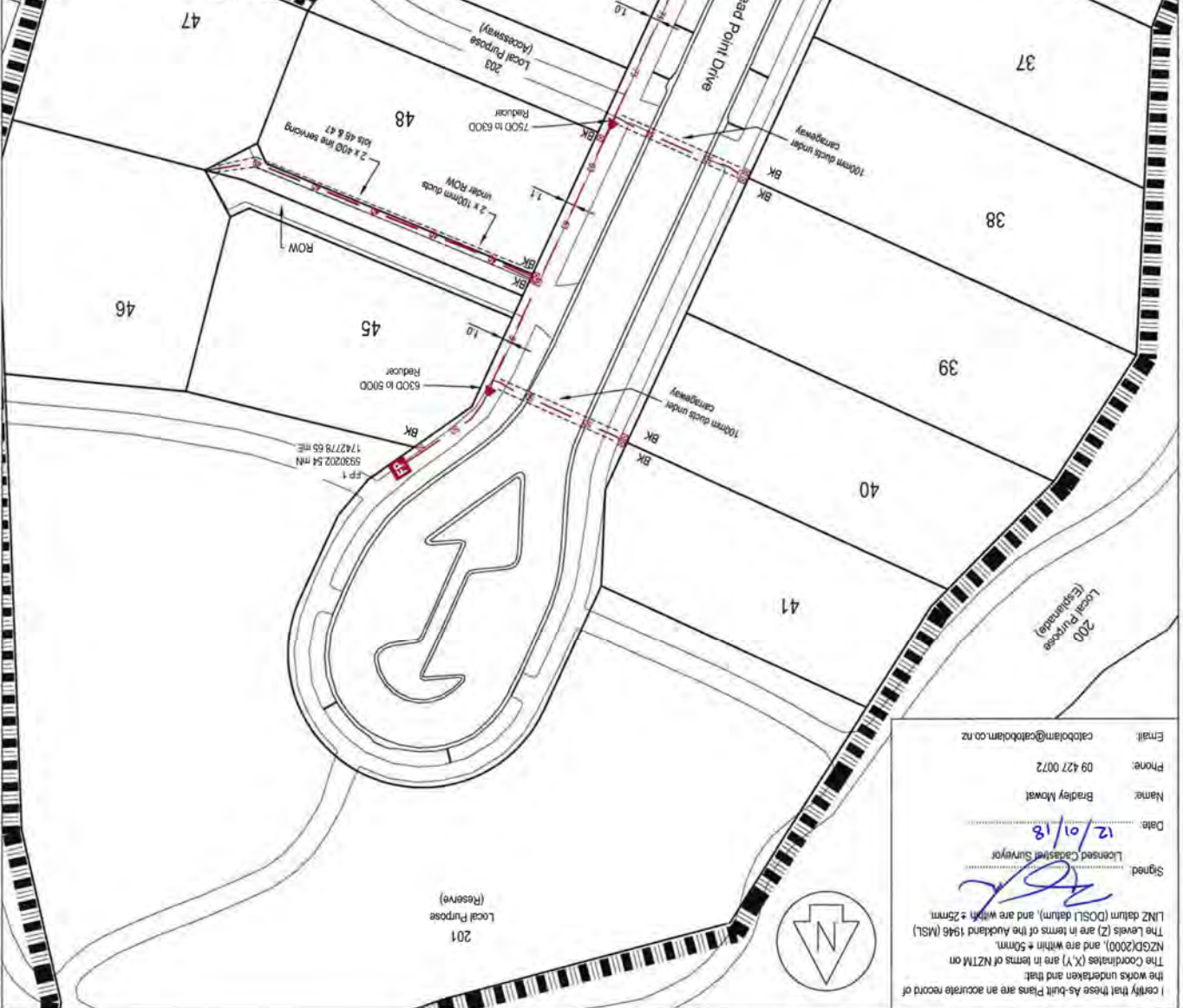
REVISION NO	A3
SHEET NO	638
JOB NO	34147
DATE	29/11/17
CAD REFERENCE	34147 638
DIRECTORY	2/31171 (ACAD) As Built Stage 3
ORIGINAL SIZE	1:500

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 Phone: 09 427 0072

- NOTE**
- Levels are in terms of LINZ Datum.
 - Coordinates are in terms of NZTM.
 - All pipework is PE100 PN16 with SAP7 bedding.
 - Depth of lines are approximately 0.5m below finished ground level in berms & 0.5m under roads.

Asbuilt Legend

- Existing
- New - Constructed under SLC 67/504
- PMW Sewer (50.63, 75.30)
- Outside diameter
- Isolation Valve
- Flushing Point
- Boundary Kit BK
- Reducer
- Stage Boundary



Signed
 Licensed Cadastral Surveyor

 Name: Bradley Howat
 Phone: 09 427 0072
 Email: cato-bolam@cato-bolam.co.nz
 Date: 12/01/18

I certify that these As-built Plans are an accurate record of the works undertaken and that the Coordinates (X, Y) are in terms of NZTM on NZGD(2000), and are within ± 50mm. The Levels (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSL datum), and are within ± 25mm.



NZTM Mainhole Co-ordinates Table		
Name	mN	mE
B-1	5930169.59	1742797.75
C-1	5930194.84	1742771.35
C-2	5930208.01	1742787.84
C-3	5930224.70	1742793.52
C-4	5930236.55	1742788.61
D-1	5930169.52	1742736.25
D-2	5930203.65	1742753.13
D-3	5930218.40	1742754.83
E-1	5930125.08	1742714.77

NZTM Catchpit Co-ordinates Table		
Name	mN	mE
CP 18	5930164.07	1742741.38
CP 19	5930159.35	1742747.27
CP 20	5930234.25	1742780.94
CP 20/1	5930233.74	1742781.86
CP 21	5930171.62	1742796.11



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Signed:
 Licensed Cadastral Surveyor
 Date: 12/01/18
 Name: Bradley Mowat
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REVISION (DESCRIPTIONS)	NAME	DATE
SURVEYED	TO S.A.A.	09/17
DESIGNED	A.A.	11/17
DRAWN	B.M.	11/17
CHECKED	B.L.	11/17
APPROVED		

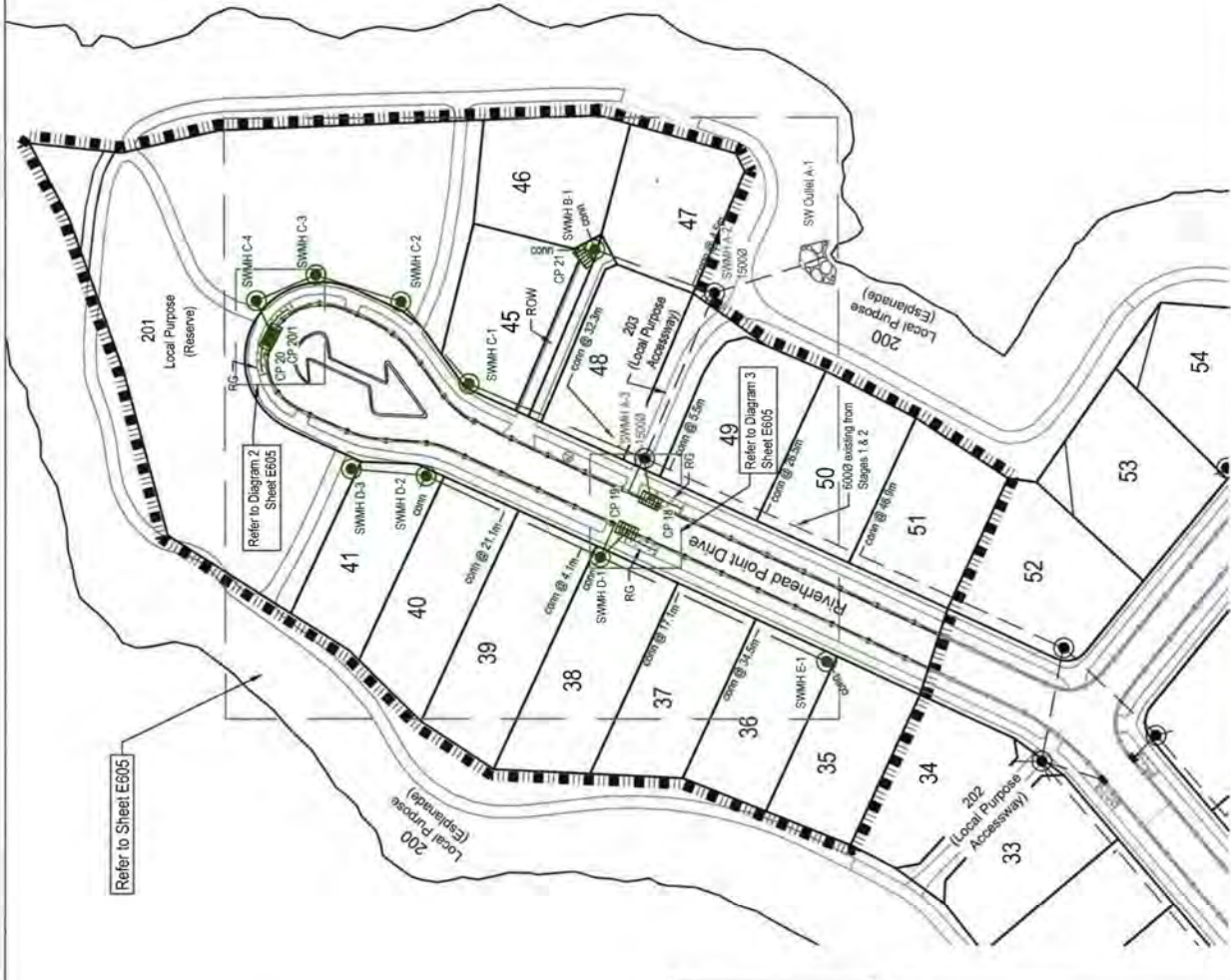
CLIENT: Cabra Properties Ltd
 Deacon Point
 Stage 3
 Dimming Road, Riverhead

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DRAWING TITLE: Stage 3: Stormwater Retention As Built Plan Sheet 1 of 2

REVISION NO: R67504
 ENG660065935

ORIGINAL SCALE	ORIGINAL SIZE	REVISION NO
1:1000	A3	
DATE	CAD REFERENCE	SHEET NO
24/11/17	3147 E639-E640	E639
DIRECTORY	IMAGE FILE	JOB NO
Z:\H\PL\660065935		34147



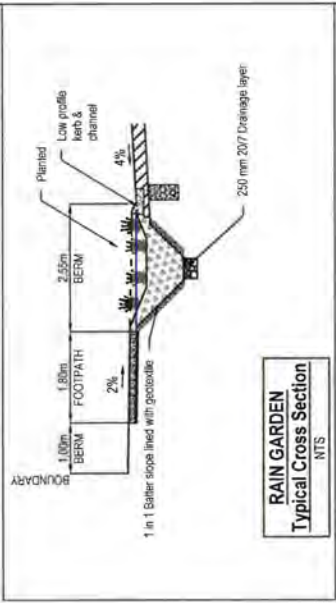
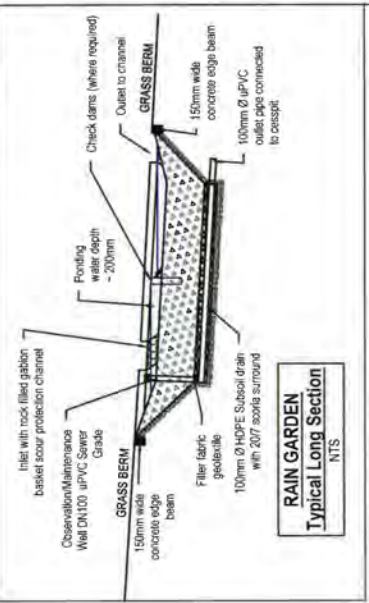
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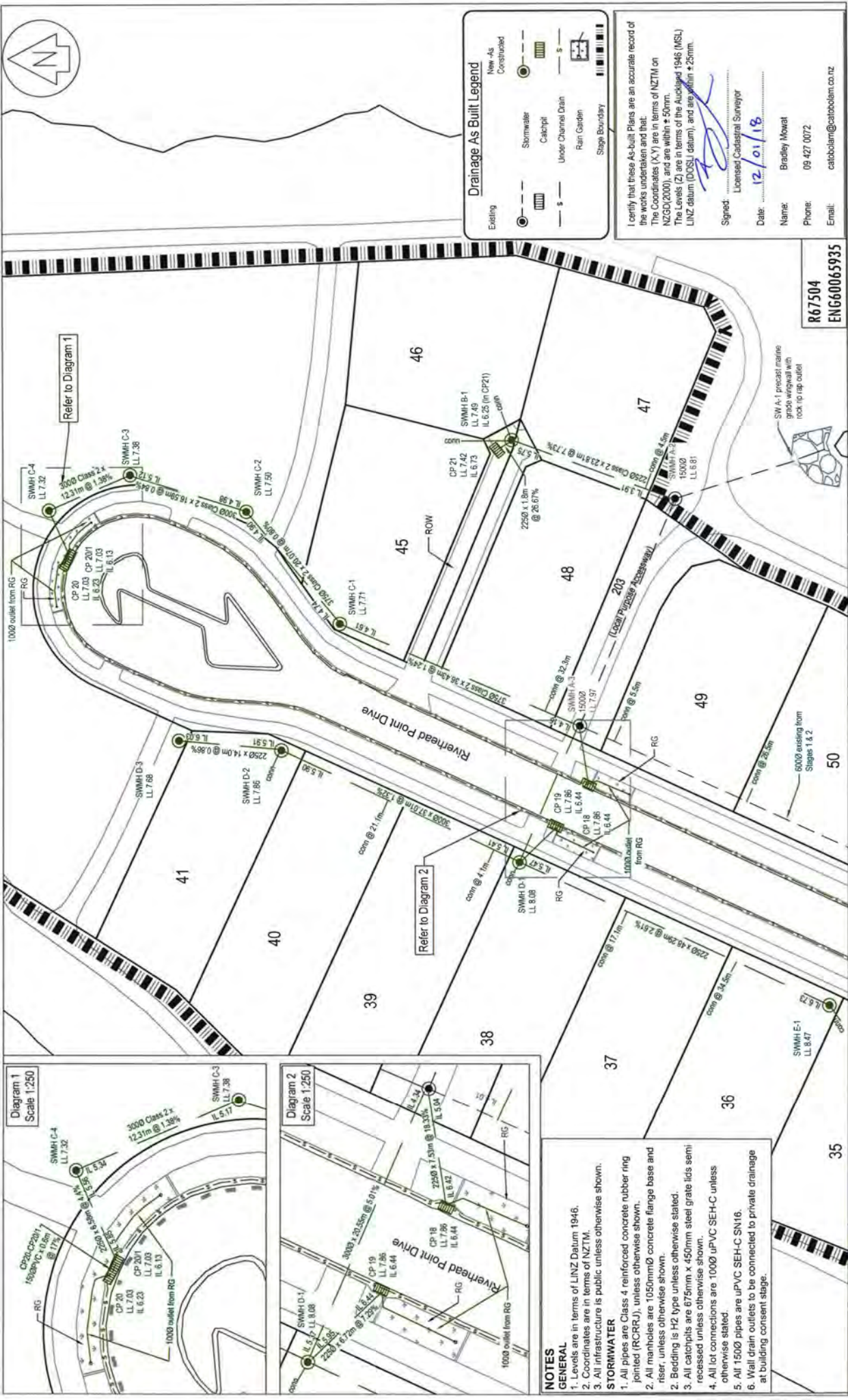
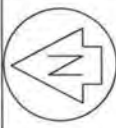
GENERAL

- Levels are in terms of LINZ Datum 1946.
- Coordinates are in terms of NZTM.
- All infrastructure is public unless otherwise shown.

STORMWATER

- All pipes are Class 4 reinforced concrete rubber ring jointed (RCRRJ), unless otherwise shown.
- All manholes are 1050mmØ concrete flange base and riser, unless otherwise shown.
- Bedding is H2 type unless otherwise stated.
- All catchpits are 675mm x 450mm steel grate lids semi recessed unless otherwise shown.
- All lot connections are 100Ø uPVC SEH-C unless otherwise stated.
- All 150Ø pipes are uPVC SEH-C SN16.
- Wall drain outlets to be connected to private drainage at building consent stage.





Drainage As Built Legend

Existing	Stormwater	Under Channel Drain	Rain Garden	Stage Boundary
New As Constructed	Catchpit	Under Channel Drain	Rain Garden	Stage Boundary

I certify that these As-built Plans are an accurate record of the works undertaken and that:
 The Coordinates (X,Y) are in terms of NZTM on NZGD(2000), and are within +50mm.
 The Levels (Z) are in terms of the Aukland 1946 (MSL) LINZ datum (DOGSJ datum), and are within +25mm.

Signed: *[Signature]*
 Licensee/Cadastral Surveyor

Date: 12/01/18
 Name: Bradley Mowat
 Phone: 09 427 0072
 Email: catabolam@catabolam.co.nz

ORIGINAL SCALE	1:500	ORIGINAL SIZE	A3	REVISION NO	
DATE	24/11/17	CAD REFERENCE	34147 E640	SHEET NO	E640
DIRECTORY	23/14/17 (Cap Label)	IMAGE FILE		JOB NO	34147

CLIENT
 Cabra Properties Ltd
 Deacon Point
 Stage 3
 Dimming Road, Riverhead

DRAWING TITLE
 Stage 3:
 Stormwater Reticalulation
 As Built Plan
 Sheet 2 of 2

REVISION (DESCRIPTIONS)

NO	NAME	DATE
1	LO 4.4A	09/17
2	AA	11/17
3	EM	11/17
4	IL	11/17

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NOTES

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- Coordinates are in terms of NZTM.
- All infrastructure is public unless otherwise shown.

STORMWATER

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- All manholes are 1050mmØ concrete flange base and riser, unless otherwise shown.
- Bedding is H2 type unless otherwise stated.
- All catchpits are 675mm x 450mm steel grate lids semi recessed unless otherwise shown.
- All lot connections are 1000Ø uPVC SEH-C unless otherwise stated.
- All 1500 pipes are uPVC SEH-C SN16.
- Wall drain outlets to be connected to private drainage at building consent stage.

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REVISION (DESCRIPTION)	NAME	DATE

CLIENT
Cabra Properties Ltd
Deacon Point
Stage 3
Dining Road, Riverhead

DRAWING TITLE
**Stage 3:
Water Retention
As Built Plan**

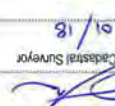
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1:500
DATE 24/11/17
CAD REFERENCE 34147 E641
SHEET NO E641
JOB NO 34147
DIRECTOR 2/31877 (K.M.) (B.H.) Stage 3

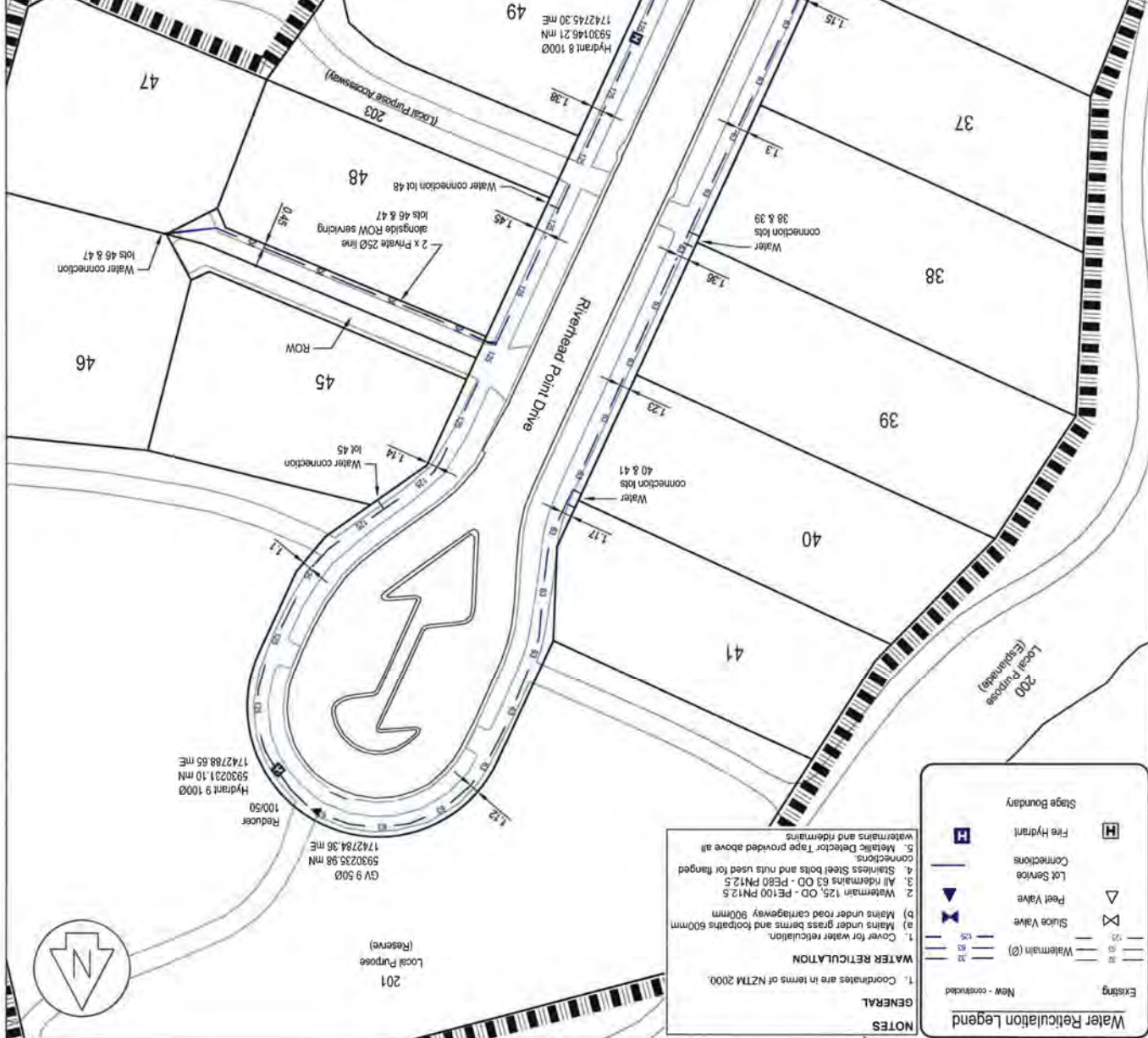
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Signed: 
Licensed Cadastral Surveyor
Date: 17/01/18
Name: Bradley Mowat
Phone: 09 477 0072
Email: catobolam@catobolam.co.nz



- Water Reticulation Legend**
- Existing
 - New - covered
 - Watermain (Ø)
 - Watermain 125, OD - PE100 PN12.5
 - Watermain 63 OD - PE80 PN12.5
 - All risers: Steel bolts and nuts used for flanged connections.
 - Slipless Steel bolts and nuts used for flanged connections.
 - Metallic Detector Tape provided above all watermains and risers.
 - Fire Hydrant
 - Stage Boundary
- GENERAL NOTES**
- Coordinates are in terms of NZTM 2000.
 - Water Retention
 - Cover for water reticulation.
 - Mains under grass berms and footpaths 600mm.
 - Mains under road carriageway 500mm.
 - All risers: 125, OD - PE100 PN12.5.
 - All risers: Steel bolts and nuts used for flanged connections.
 - Slipless Steel bolts and nuts used for flanged connections.
 - Metallic Detector Tape provided above all watermains and risers.



REVISION (DESCRIPTIONS)	
DATE	NAME
10/17	LD & AA
11/17	AA
11/17	RM
11/17	TC

CLIENT
Cobra Properties Ltd
 Deacon Point
 Stage 3
 Dining Road, Riverhead

DRAWING TITLE
**Stage 3:
 Stormwater Drainage Zone
 of Influence Plan**

2/2017/AA0	DIRECTOR
24/11/17	DATE
34147 E642	CAD REFERENCE
34147 E642	SHEET NO
E642	JOB NO
34147	REVISION NO
1:500	ORIGINAL SCALE
A3	REVISION NO

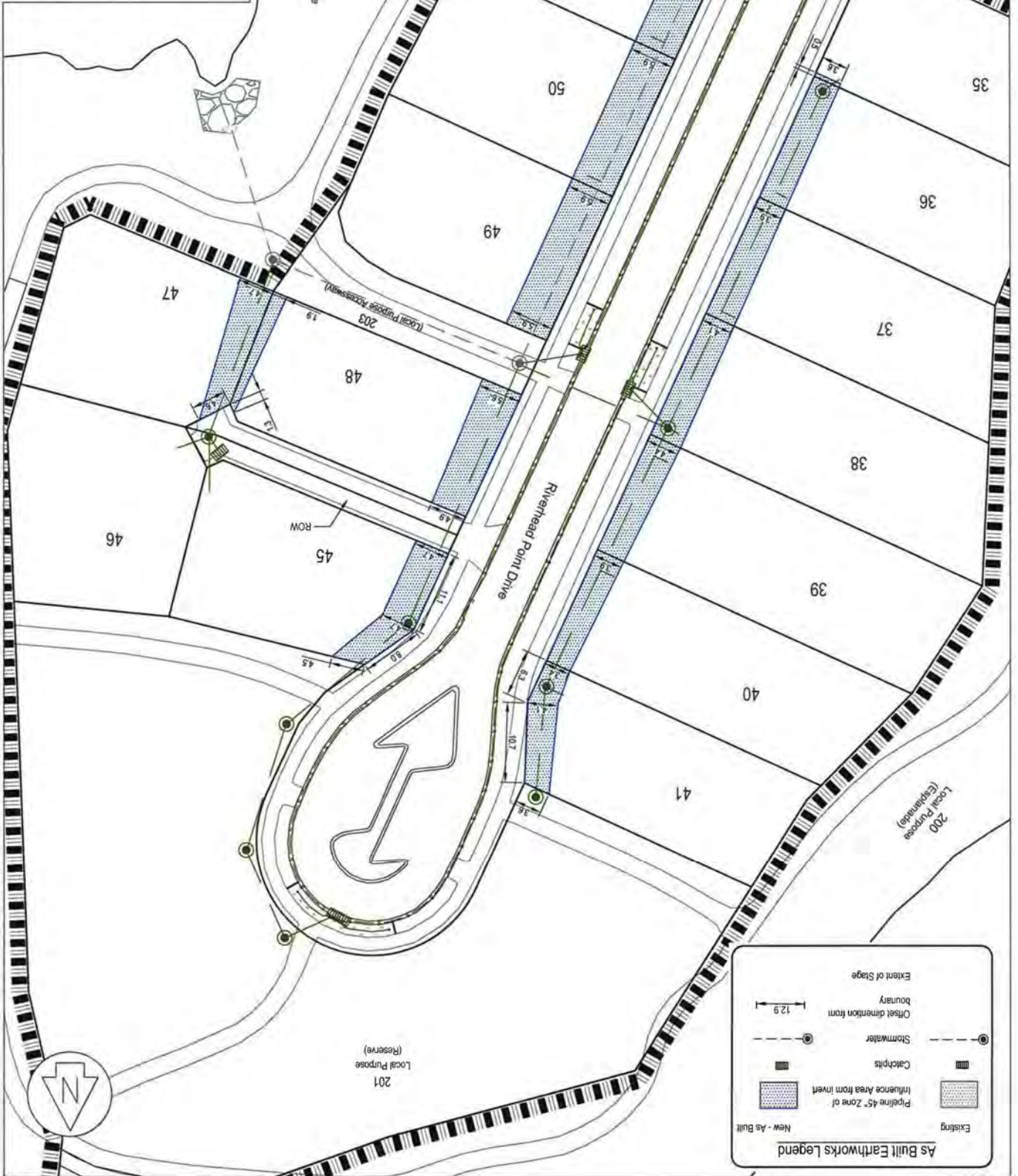
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As Built Earthworks Legend

- Existing
- New - As Built
- Pipeline 45° Zone of Influence Area from Invert
- Catchpits
- Stormwater
- Offset dimension from boundary
- Extent of Stage

Scale: 12.9



Legend	
— 10 —	As built Contour (1m interval)
— — —	As built Contour (0.5m interval)
— — —	Top of Bank
— — —	Bottom of Bank
	Extent of Stage
[Green Box]	Specific Design Zone (Slope) (Refer to CMW Geosciences Ltd geotechnical completion report for design requirements)



REVISION (DESCRIPTIONS)	NAME	DATE
SURVEYED	LD & AA	10/17
DESIGNED		
DRAWN	AA	07/18
CHECKED	BM	07/18
APPROVED	YL	07/18

CLIENT
Cabra Properties Ltd
Deacon Point
Stage 3
Dinning Road, Riverhead

DRAWING TITLE
Stage 3:
Specific Design Zone - Slope

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ORIGINAL SCALE 1:500	ORIGINAL SIZE A3	REVISION NO
DATE 30/01/17	CAD REFERENCE 34147 E643	SHEET NO E643
DIRECTORY Z:\34147.Acad		JOB NO 34147