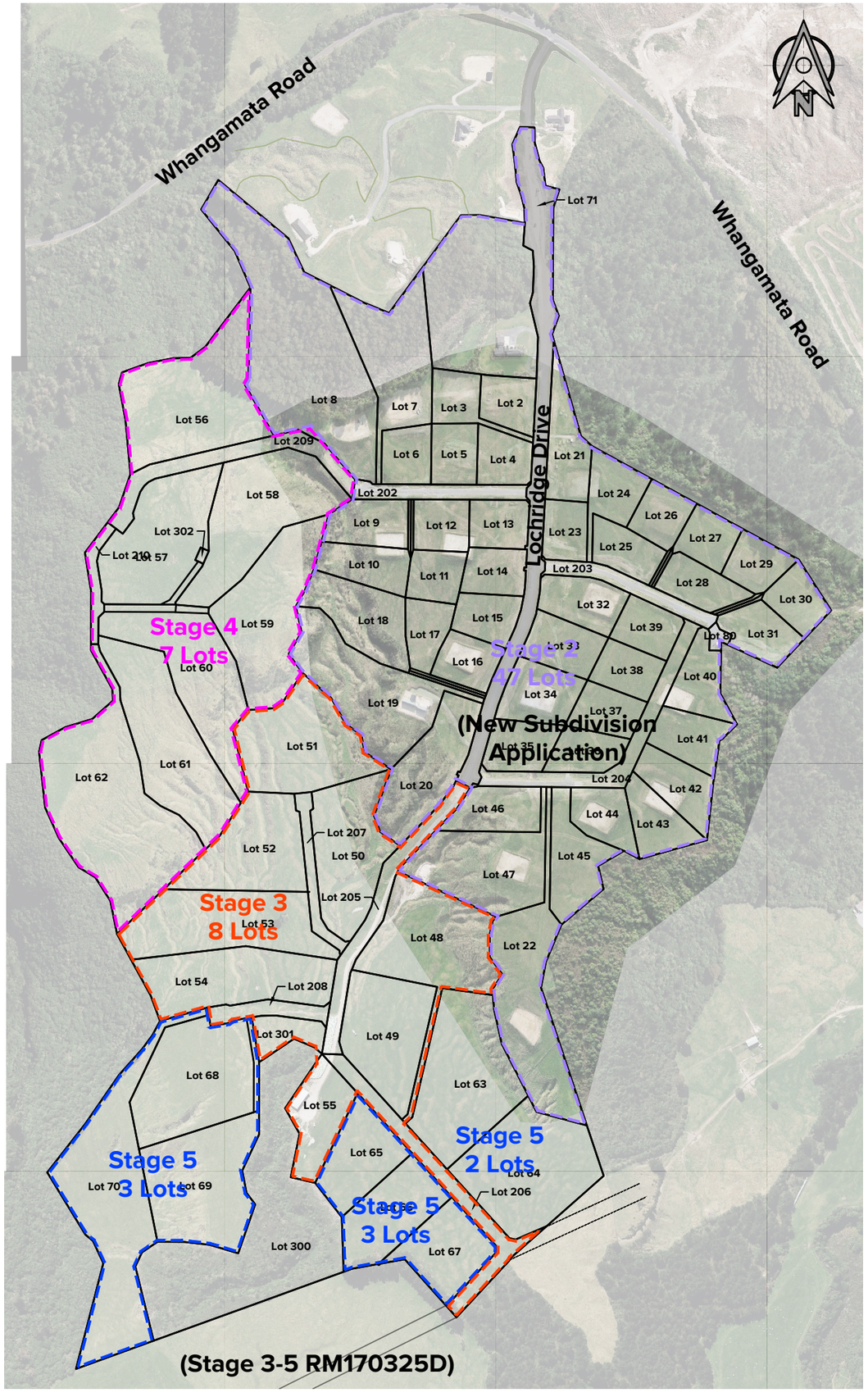


STAGES 2 - 5

LOCHRIDGE ESTATE LIMITED

LOCHRIDGE DRIVE, KINLOCH, TAUPO

SEPTEMBER 2026

ENGINEERING PLANS

Drawing #:	Drawing Title:	Revision:
	General	
1474-00-GR-001	Cover Sheet & Site Location Plan	A
	Earthworks	
1474-20-EW-201	Overall Finished Contour Plan	A
1474-20-EW-202	Finished Contour Plan (Enlarged)	A
1474-20-EW-203	Finished Contour Plan (Enlarged)	A
1474-20-EW-204	Overall Cut & Fill Plan	A
1474-20-EW-205	Cut & Fill Plan (Enlarged)	A
1474-20-EW-206	Cut & Fill Plan (Enlarged)	A
1474-20-EW-211	Erosion & Sediment Control Plan Sheet 1 of 2	A
1474-20-EW-212	Erosion & Sediment Control Plan Sheet 2 of 2	A
1474-20-EW-213	Erosion & Sediment Control Details	A
	Roading	
1474-30-RD-301	Roading Network Plan	A
1474-30-RD-302	Pigeonwood Lane Plan, Long & Typ. Cross Section	A
1474-30-RD-303	Tea Tree Lane Plan, Long & Typ. Cross Section	A
1474-30-RD-304	Akeake Lane Plan, Long & Typ. Cross Section	A
1474-30-RD-305	Lochridge Drive Plan, Long & Typ. Cross Section	A
1474-30-RD-306	JOAL 1 Plan, Long & Typ. Cross Section	A
1474-30-RD-307	Road 1 Plan, Long & Typ. Cross Section	A
1474-30-RD-308	JOAL 2, ROW 1 & 2 Plan, Long & Typ. Cross Section	A
1474-30-RD-321	Local/Collector Road Junction Vehicle Tracking	A
1474-30-RD-322	JOAL/ROW Junction Vehicle Tracking	A
1474-30-RD-331	Sight Distance Assessment	A
1474-30-RD-332	Sight Distance Assessment	A
1474-30-RD-333	Sight Distance Assessment	A
	Stormwater	
1474-40-SW-401	General Arrangement Plan	A
1474-40-SW-402	Pre-Development Catchment Plan	A
1474-40-SW-403	Post-Development Catchment Plan	A
1474-40-SW-404	Stormwater Layout Sheet 1 of 7	A
1474-40-SW-405	Stormwater Layout Sheet 2 of 7	A
1474-40-SW-406	Stormwater Layout Sheet 3 of 7	A
1474-40-SW-407	Stormwater Layout Sheet 4 of 7	A

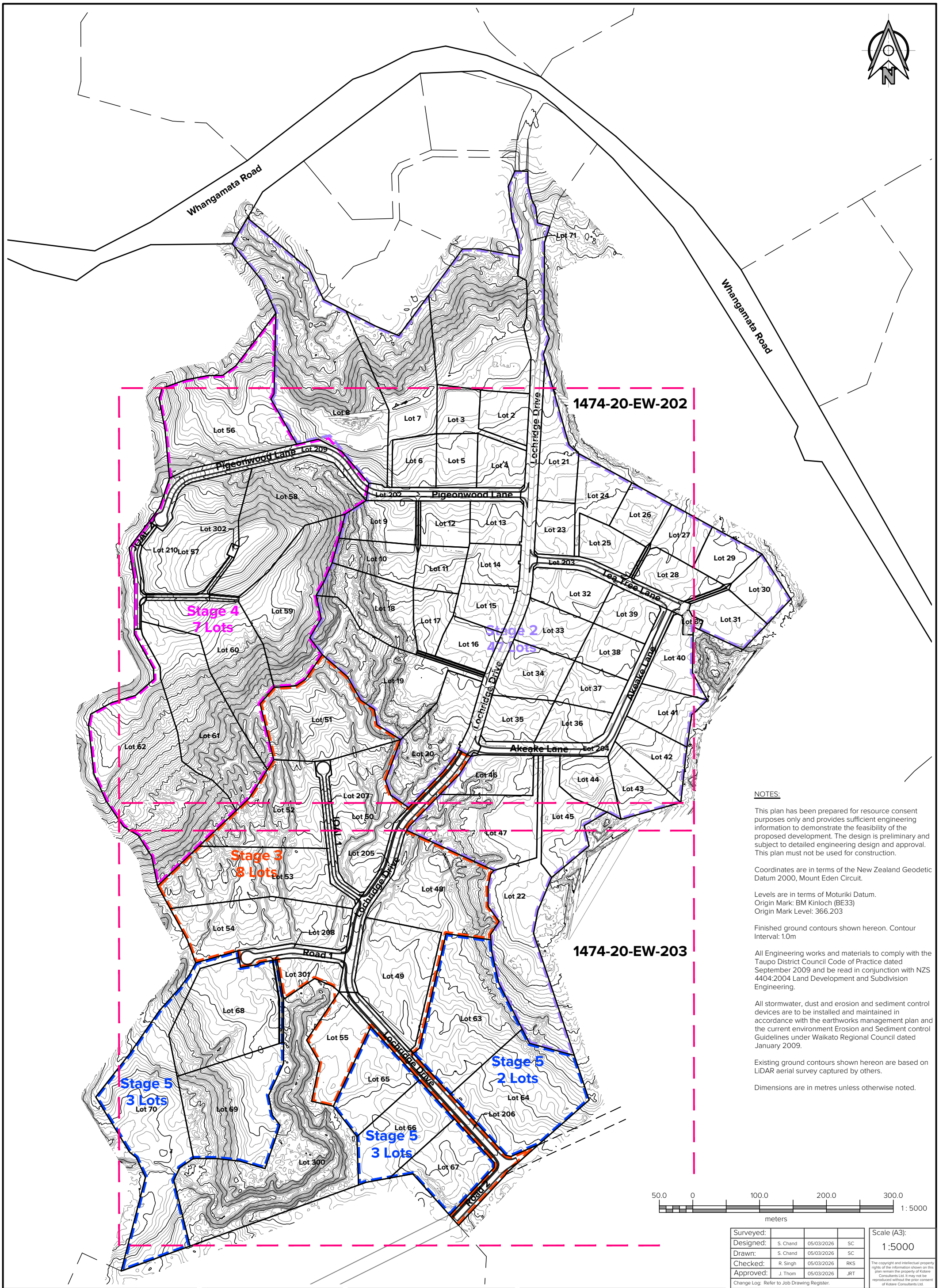
Drawing #:	Drawing Title:	Revision:
1474-40-SW-408	Stormwater Layout Sheet 5 of 7	A
1474-40-SW-409	Stormwater Layout Sheet 6 of 7	A
1474-40-SW-410	Stormwater Layout Sheet 7 of 7	A
	Water Reticulation & Services	
1474-60-WT-601	General Arrangement Plan	A
1474-60-WT-602	Water Reticulation & Services Layout Sheet 1 of 7	A
1474-60-WT-603	Water Reticulation & Services Layout Sheet 2 of 7	A
1474-60-WT-604	Water Reticulation & Services Layout Sheet 3 of 7	A
1474-60-WT-605	Water Reticulation & Services Layout Sheet 4 of 7	A
1474-60-WT-606	Water Reticulation & Services Layout Sheet 5 of 7	A
1474-60-WT-607	Water Reticulation & Services Layout Sheet 6 of 7	A
1474-60-WT-608	Water Reticulation & Services Layout Sheet 7 of 7	A

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Status:	Sheet:
RESOURCE CONSENT	A3
Drawing Plan:	Rev:
1474-00-GR-001	A

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AUTO CAD



NOTES:

This plan has been prepared for resource consent purposes only and provides sufficient engineering information to demonstrate the feasibility of the proposed development. The design is preliminary and subject to detailed engineering design and approval. This plan must not be used for construction.

Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

All Engineering works and materials to comply with the Taupo District Council Code of Practice dated September 2009 and be read in conjunction with NZS 4404:2004 Land Development and Subdivision Engineering.

All stormwater, dust and erosion and sediment control devices are to be installed and maintained in accordance with the earthworks management plan and the current environment Erosion and Sediment control Guidelines under Waikato Regional Council dated January 2009.

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Dimensions are in metres unless otherwise noted.

Surveyed:			
Designed:	S. Chand	05/03/2026	SC
Drawn:	S. Chand	05/03/2026	SC
Checked:	R. Singh	05/03/2026	RKS
Approved:	J. Thom	05/03/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1:5000

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Rev	Date	Amendment:	By	Chk	App
A	14/09/26	First Issue	SC	RKS	JRT

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Client: Lochridge Estate Ltd

Project: Stages 2-5

Title: Earthworks
Overall Finished Contour Plan

Status: **RESOURCE CONSENT**

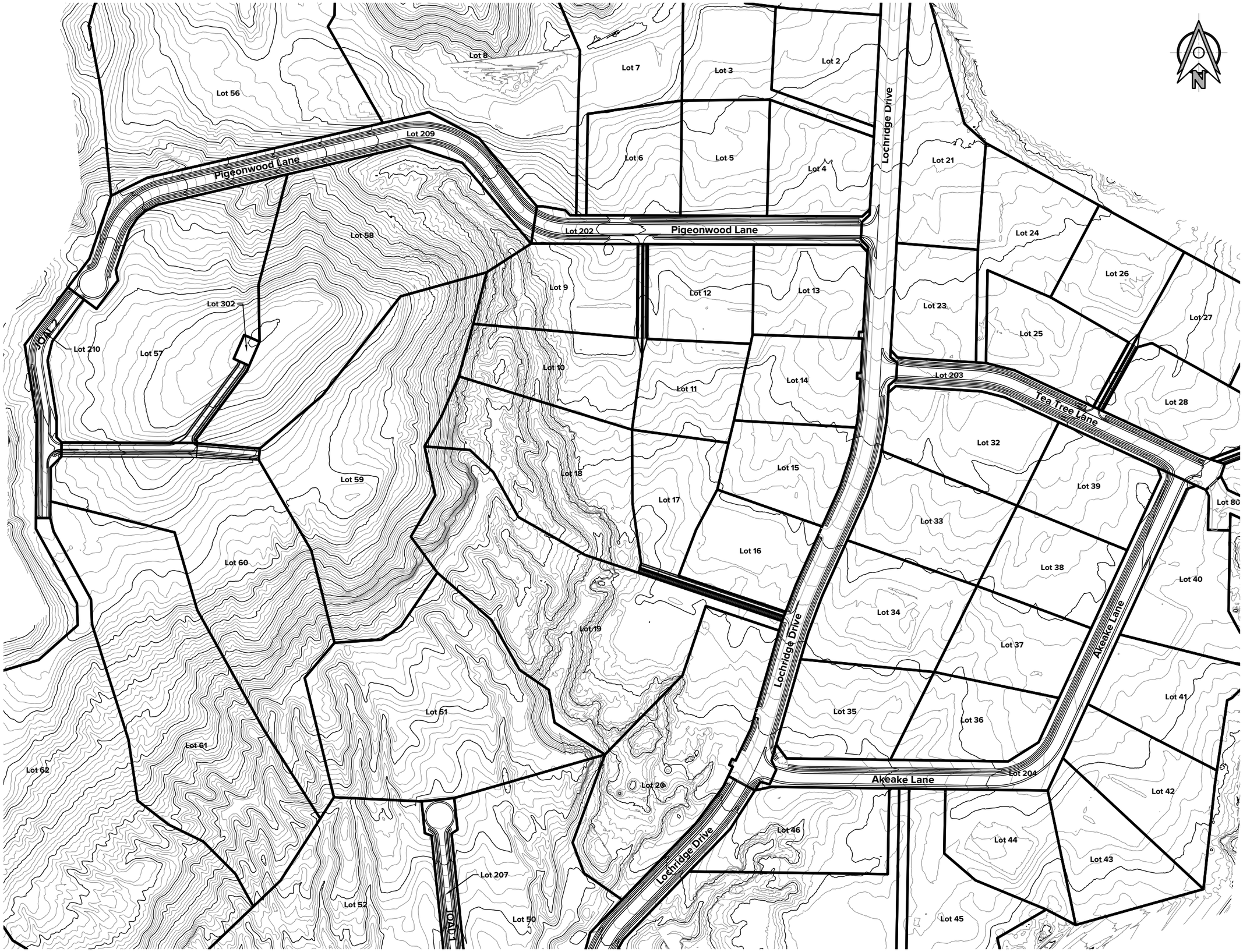
Sheet: A3

Drawing Plan: 1474-20-EW-201

Rev: A

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NOTES:

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Rev	Date	Amendment:	By	Chk	App
A	14/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Earthworks
Finished Contour Plan (Enlarged)

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 : 2500

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Status: **RESOURCE CONSENT**

Sheet: A3

Drawing Plan: 1474-20-EW-202

Rev: A

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NOTES:

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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Rev	Date	Amendment:	By	Chk	App
A	14/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Earthworks
Finished Contour Plan (Enlarged)

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3):
1 : 2500

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Sheet:
A3

Drawing Plan:
1474-20-EW-203

Rev:
A

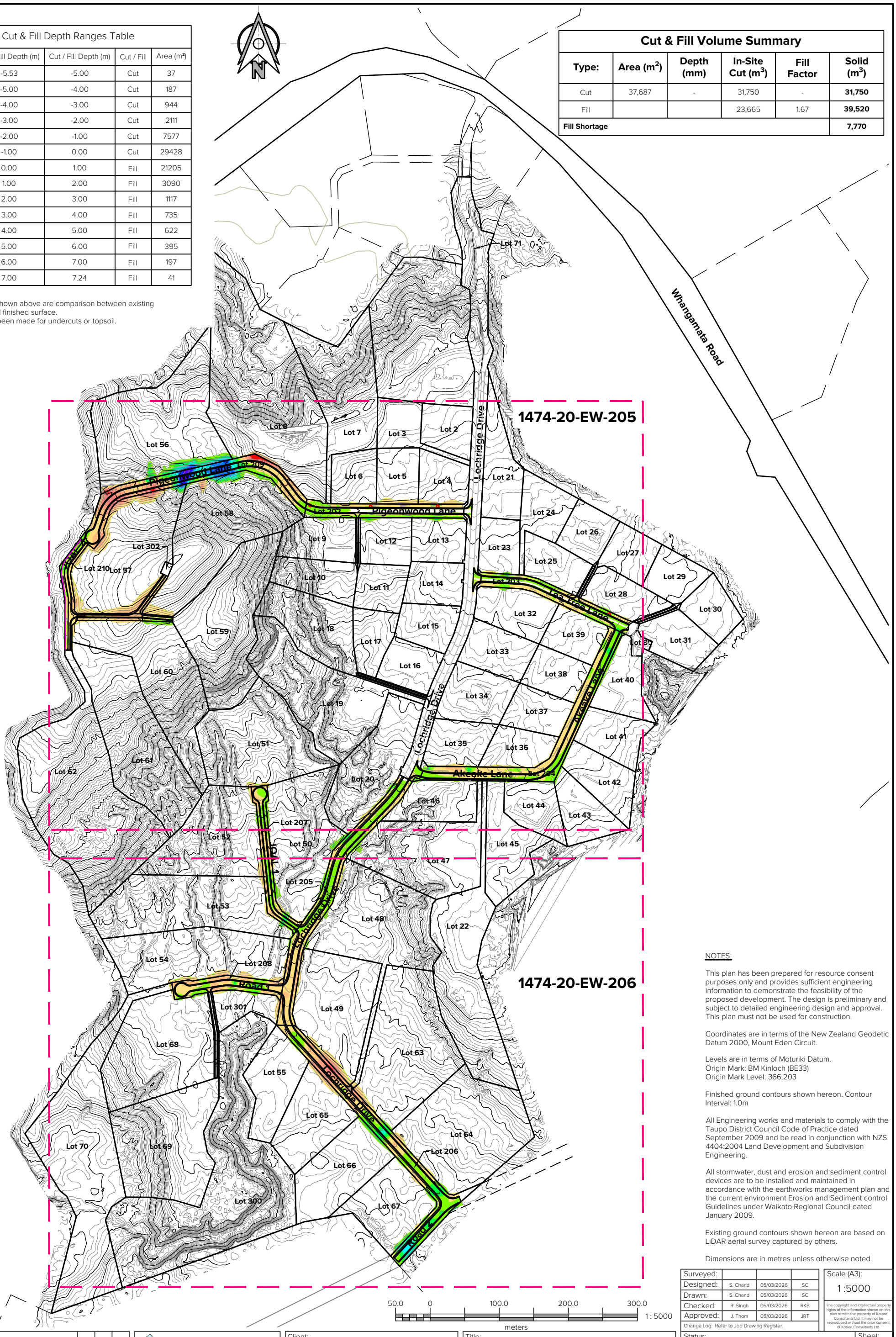
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AUTO CAD

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Cut & Fill Depth Ranges Table				
Color	Cut / Fill Depth (m)	Cut / Fill Depth (m)	Cut / Fill	Area (m²)
	-5.53	-5.00	Cut	37
	-5.00	-4.00	Cut	187
	-4.00	-3.00	Cut	944
	-3.00	-2.00	Cut	2111
	-2.00	-1.00	Cut	7577
	-1.00	0.00	Cut	29428
	0.00	1.00	Fill	21205
	1.00	2.00	Fill	3090
	2.00	3.00	Fill	1117
	3.00	4.00	Fill	735
	4.00	5.00	Fill	622
	5.00	6.00	Fill	395
	6.00	7.00	Fill	197
	7.00	7.24	Fill	41

Note:
Cut depth ranges shown above are comparison between existing ground surface and finished surface.
No allowance has been made for undercuts or topsoil.

Cut & Fill Volume Summary					
Type:	**Area (m^2)**	**Depth (mm)**	**In-Site Cut (m^3)**	**Fill Factor**	**Solid (m^3)**
Cut	37,687	-	31,750	-	**31,750**
Fill			23,665	1.67	**39,520**
Fill Shortage					**7,770**



NOTES:

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Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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Rev	Date	Amendment:	By	Chk	App
A	14/09/26	First Issue	SC	RKS	JRT

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Client: Lochridge Estate Ltd

Project: Stages 2-5

Title: Earthworks
Overall Cut & Fill Plan

Surveyed:			
Designed:	S. Chand	05/03/2026	SC
Drawn:	S. Chand	05/03/2026	SC
Checked:	R. Singh	05/03/2026	RKS
Approved:	J. Thom	05/03/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 :5000

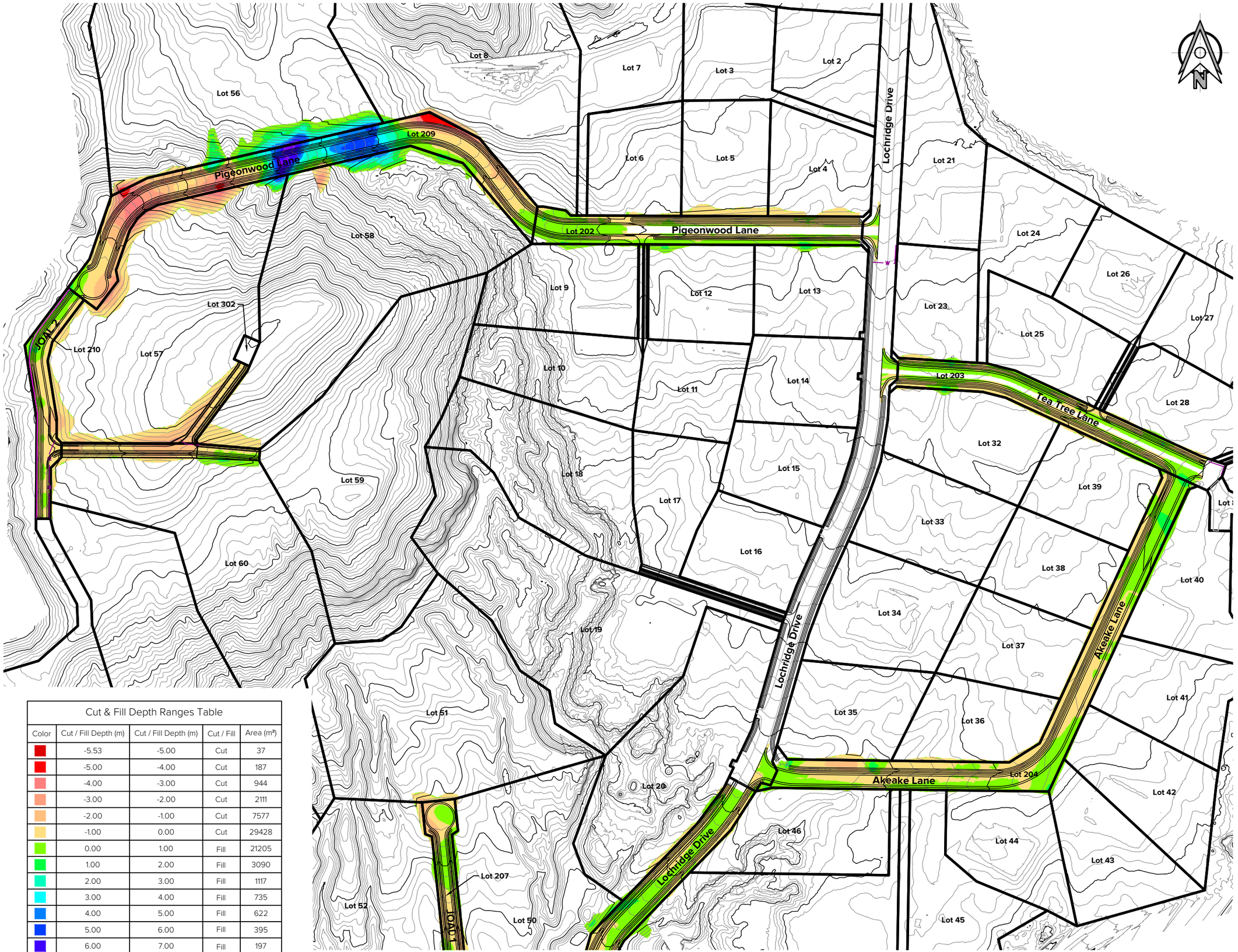
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Status: **RESOURCE CONSENT**

Sheet: A3

Drawing Plan: 1474-20-EW-204

Rev: A



Cut & Fill Depth Ranges Table				
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	-5.00	-4.00	Cut	187
	-4.00	-3.00	Cut	944
	-3.00	-2.00	Cut	2111
	-2.00	-1.00	Cut	7577
	-1.00	0.00	Cut	29428
	0.00	1.00	Fill	21205
	1.00	2.00	Fill	3090
	2.00	3.00	Fill	1117
	3.00	4.00	Fill	735
	4.00	5.00	Fill	622
	5.00	6.00	Fill	395
	6.00	7.00	Fill	197
	7.00	7.24	Fill	41

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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Rev	Date	Amendment:	By	Chk	App
A	14/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Earthworks
Cut & Fill Plan (Enlarged)

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 : 2500

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Status: **RESOURCE CONSENT**

Sheet: A3

Drawing Plan: 1474-20-EW-205

Rev: A

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Cut & Fill Depth Ranges Table				
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	-5.00	-4.00	Cut	187
	-4.00	-3.00	Cut	944
	-3.00	-2.00	Cut	2111
	-2.00	-1.00	Cut	7577
	-1.00	0.00	Cut	29428
	0.00	1.00	Fill	21205
	1.00	2.00	Fill	3090
	2.00	3.00	Fill	1117
	3.00	4.00	Fill	735
	4.00	5.00	Fill	622
	5.00	6.00	Fill	395
	6.00	7.00	Fill	197
	7.00	7.24	Fill	41

25.0 0 50.0 100.0 150.0
1 : 2500
meters

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Rev	Date	Amendment:	By	Chk	App
A	14/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Earthworks
Cut & Fill Plan (Enlarged)

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

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RESOURCE CONSENT

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A3

Drawing Plan:
1474-20-EW-206

Rev:
A

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Permanent culverts installed to maintain clean water flow through gully during earthworks.

Permanent culverts installed to maintain clean water flow during earthworks.

Existing culvert to be maintained temporarily to convey clean water flow during earthworks.

Temporary culverts installed to maintain clean water flow during earthworks.

Existing culvert to maintain clean water flow during earthworks.

Existing culvert to maintain clean water flow during earthworks.

Pigeonwood Lane

Lochridge Drive

Tea Tree Lane

Akeake Lane

JOAL 2

JOAL 1

Lot 1 Lot 2 Lot 3 Lot 4 Lot 5 Lot 6 Lot 7 Lot 8 Lot 9 Lot 10 Lot 11 Lot 12 Lot 13 Lot 14 Lot 15 Lot 16 Lot 17 Lot 18 Lot 19 Lot 20 Lot 21 Lot 23 Lot 24 Lot 25 Lot 26 Lot 27 Lot 28 Lot 32 Lot 33 Lot 34 Lot 35 Lot 36 Lot 37 Lot 38 Lot 39 Lot 40 Lot 41 Lot 42 Lot 43 Lot 44 Lot 45 Lot 46 Lot 50 Lot 51 Lot 52 Lot 56 Lot 57 Lot 58 Lot 59 Lot 60 Lot 80 Lot 202 Lot 203 Lot 204 Lot 207 Lot 209 Lot 210 Lot 302

EROSION AND SEDIMENT CONTROL NOTES:

- All erosion and sediment control works to be completed in accordance with Waikato Regional Council Erosion and Sediment Control guidelines, and all other relevant documents.
- These Erosion and Sediment Control plans have been prepared for Engineering Approval purposes only and not to be used for any other purpose.
- Contractor to ensure methodology and staging of works completed to minimise exposed areas at any one time.
- Contractor to confirm all positions of devices, diversion bunds and outlets prior to construction. Contractor to ensure DEBs sized to provided minimum of volume shown.
- Where minor and localised works required where not capable of being routed to DEB, silt fences and super silt fences to be utilised.
- Cut-off drains to be positioned as required.

Cut & Fill Depth Ranges Table

Color	Cut / Fill Depth (m)	Cut / Fill Depth (m)	Cut / Fill	Area (m²)
	-5.53	-5.00	Cut	37
	-5.00	-4.00	Cut	187
	-4.00	-3.00	Cut	944
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	-2.00	-1.00	Cut	7577
	-1.00	0.00	Cut	29428
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	2.00	3.00	Fill	1117
	3.00	4.00	Fill	735
	4.00	5.00	Fill	622
	5.00	6.00	Fill	395
	6.00	7.00	Fill	197
	7.00	7.24	Fill	41

25.0 0 50.0 100.0 150.0
meters
1 : 2500

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Origin Mark Level: 366.203

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LEGEND:

- Site Boundary
- Clean Water Diversion Bunds
- Dirty Water Diversion Bunds
- Silt Fence
- Culvert/Farmboss
- Cut-off Drain/Drivable Bunds
- Decanting Earth Bunds

Rev	Date	Amendment:	By	Chk	App
A	14/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Earthworks - Erosion & Sediment Control Plan Sheet 1 of 2

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3):
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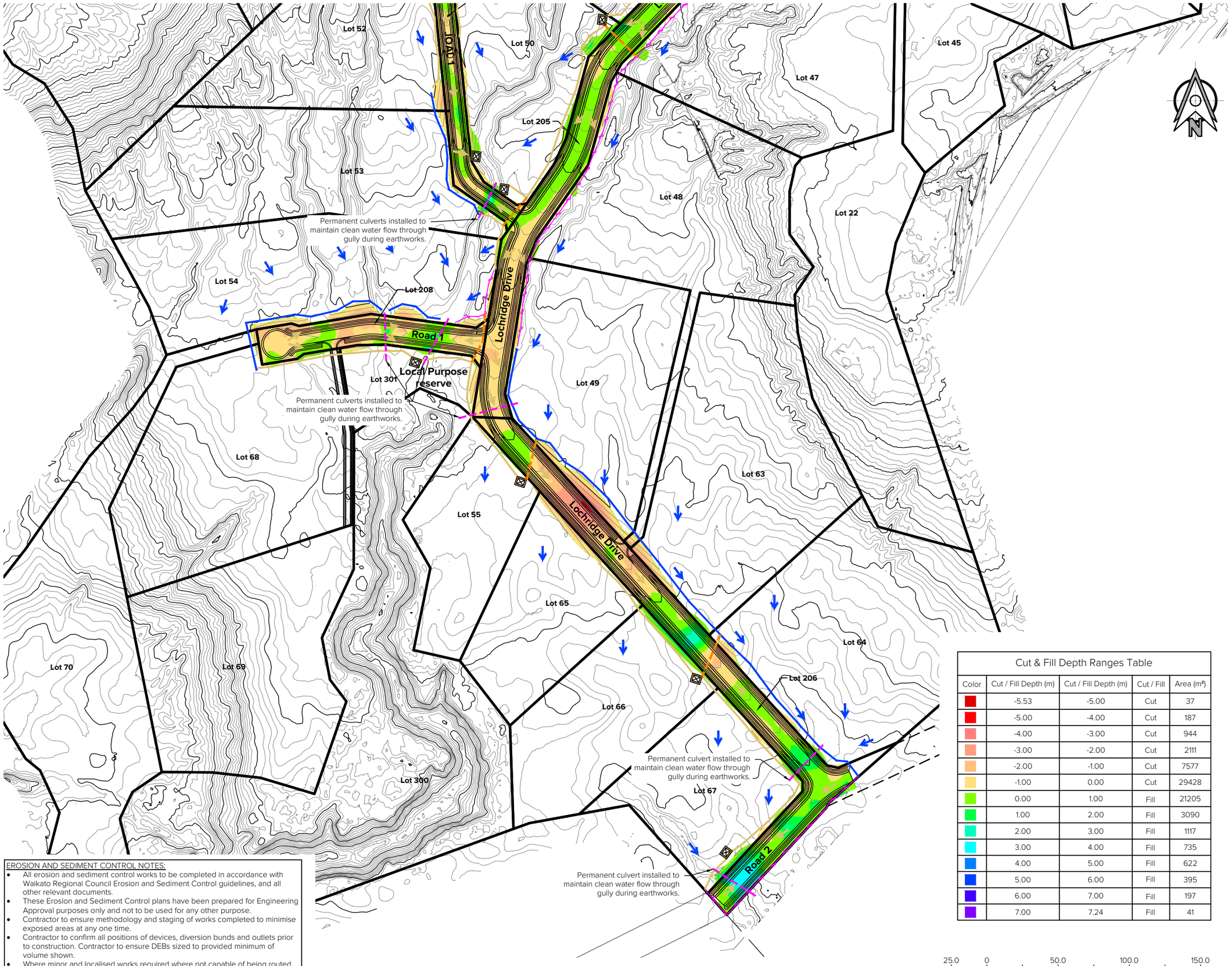
Drawing Plan:
1474-20-EW-211

Rev:
A

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EROSION AND SEDIMENT CONTROL NOTES:

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- Cut-off drains to be positioned as required.

Cut & Fill Depth Ranges Table

Color	Cut / Fill Depth (m)	Cut / Fill Depth (m)	Cut / Fill	Area (m²)
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	-5.00	-4.00	Cut	187
	-4.00	-3.00	Cut	944
	-3.00	-2.00	Cut	2111
	-2.00	-1.00	Cut	7577
	-1.00	0.00	Cut	29428
	0.00	1.00	Fill	21205
	1.00	2.00	Fill	3090
	2.00	3.00	Fill	1117
	3.00	4.00	Fill	735
	4.00	5.00	Fill	622
	5.00	6.00	Fill	395
	6.00	7.00	Fill	197
	7.00	7.24	Fill	41

25.0 0 50.0 100.0 150.0
meters
1 : 2500

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NOTES:

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

All Engineering works and materials to comply with the Taupo District Council Code of Practice dated September 2009 and be read in conjunction with NZS 4404:2004 Land Development and Subdivision Engineering.

All stormwater, dust and erosion and sediment control devices are to be installed and maintained in accordance with the earthworks management plan and the current environment Erosion and Sediment control Guidelines under Waikato Regional Council dated January 2009.

Existing ground contours shown hereon are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

LEGEND:

- Site Boundary
- Clean Water Diversion Bunds
- Dirty Water Diversion Bunds
- Silt Fence
- Culvert/Farmboss
- Cut-off Drain/Drivable Bunds
- Decanting Earth Bunds

Rev	Date	Amendment:	By	Chk	App
A	14/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Earthworks - Erosion & Sediment Control Plan Sheet 2 of 2

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3):
1 : 2500

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Status:
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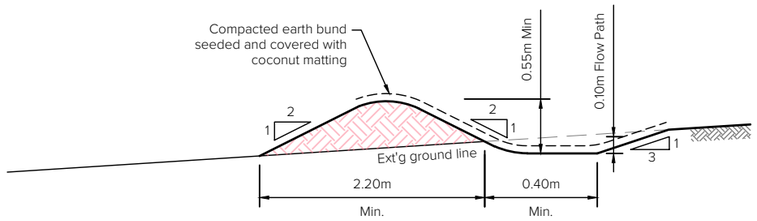
Sheet:
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Drawing Plan:
1474-20-EW-212

Rev:
A

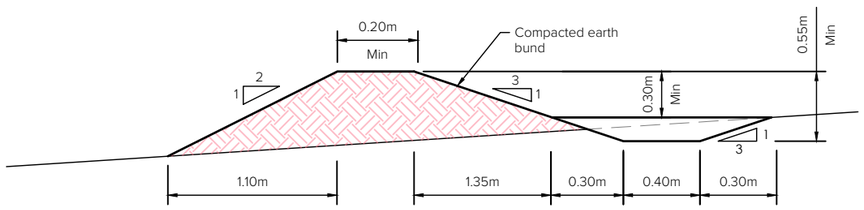
KOTARE CONSULTANTS
AUTO CAD

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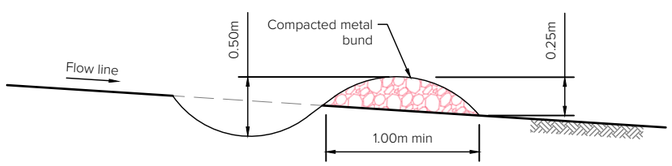
Clean Water Diversion Bund

N.T.S



Dirty Water Diversion Bund

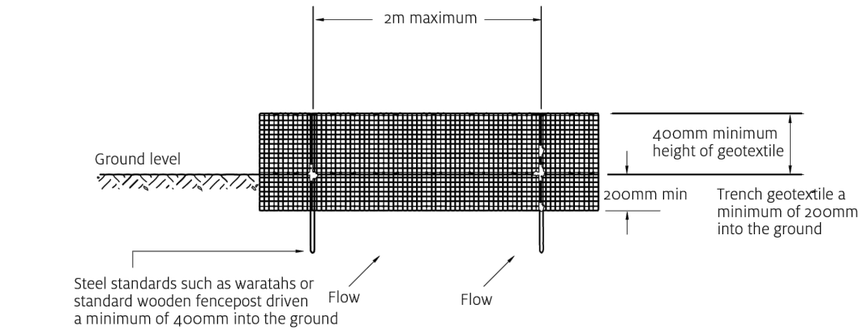
N.T.S



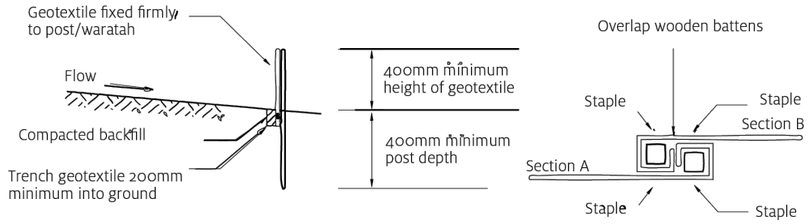
Cut Off Drain

N.T.S

Figure 1

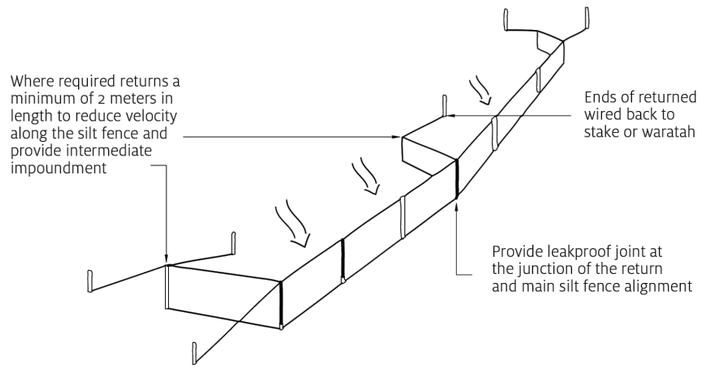


Elevation



Cross section

Standard fabric joint



Perspective view

Silt Fence Installation Detail (If Required)

N.T.S

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Origin Mark Level: 366.203

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Dimensions are in metres unless otherwise noted.

Rev	Date	Amendment:	By	Chk	App
A	14/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Earthworks - Erosion & Sediment Control Details

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 : 2500

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Status: **RESOURCE CONSENT**

Sheet: A3

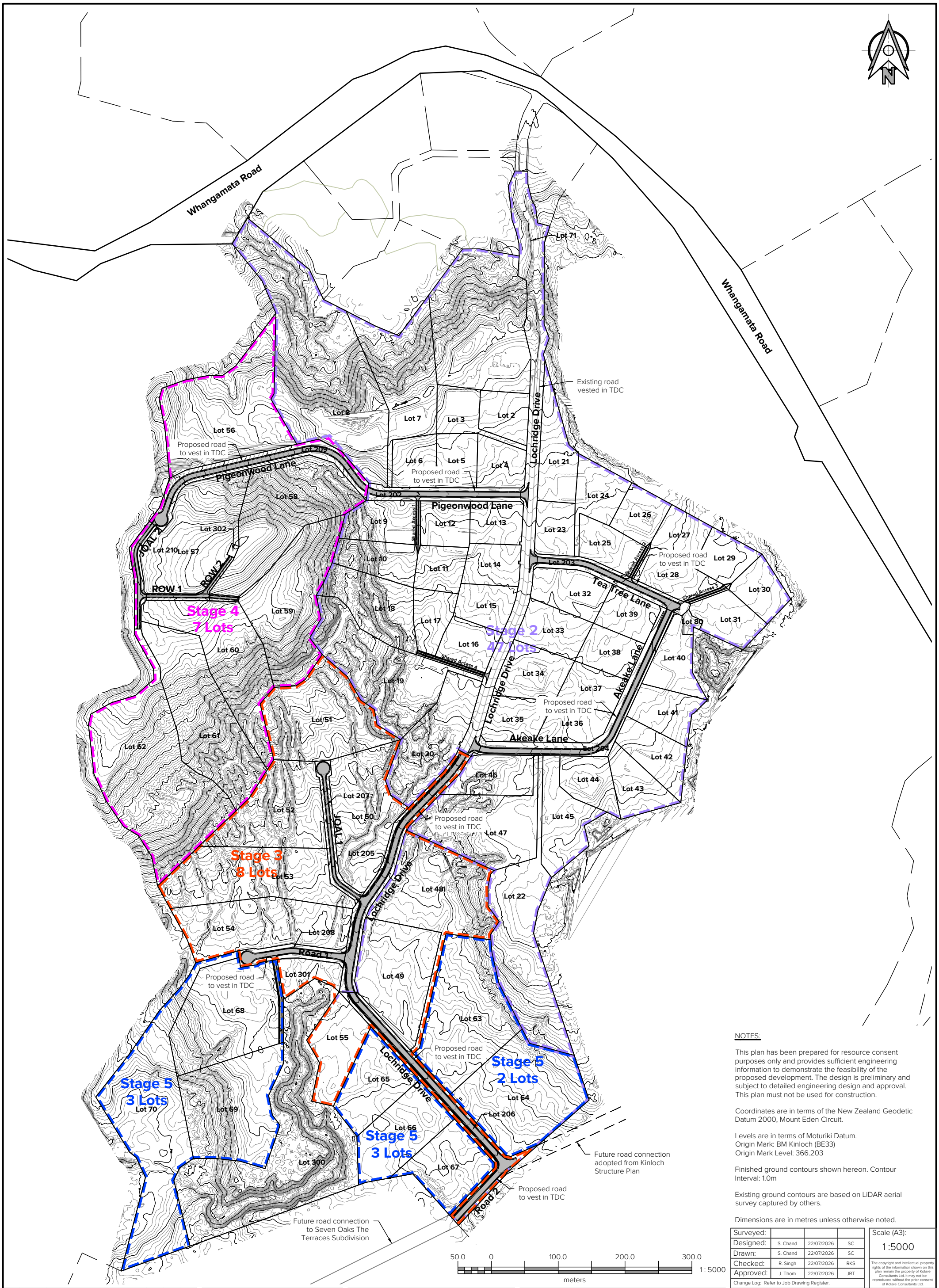
Drawing Plan: 1474-20-EW-213

Rev: A

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NOTES:

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 :5000

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Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

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Client: Lochridge Estate Ltd

Project: Stages 2-5

Title: Roading Network Plan

Status: **RESOURCE CONSENT**

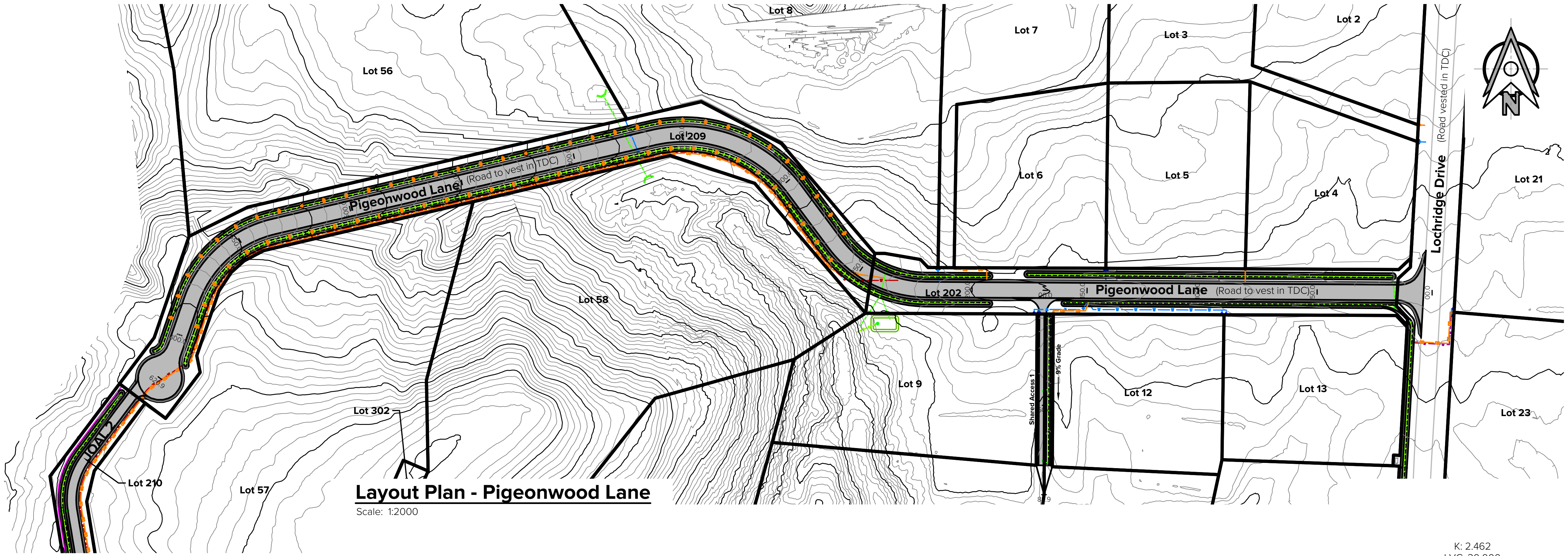
Sheet: A3

Drawing Plan: 1474-30-RD-301

Rev: A

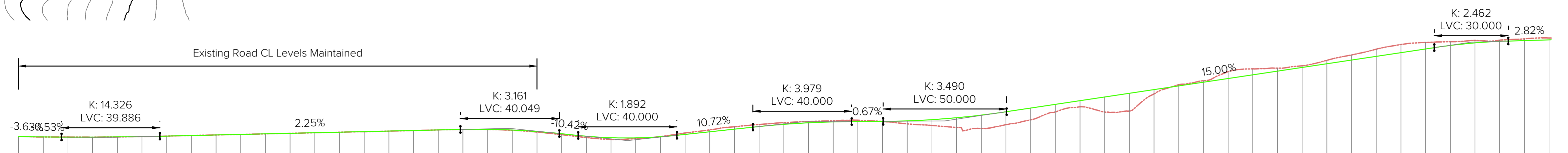
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AUTO CAD



Layout Plan - Pigeonwood Lane

Scale: 1:2000



Datum: 490.00m

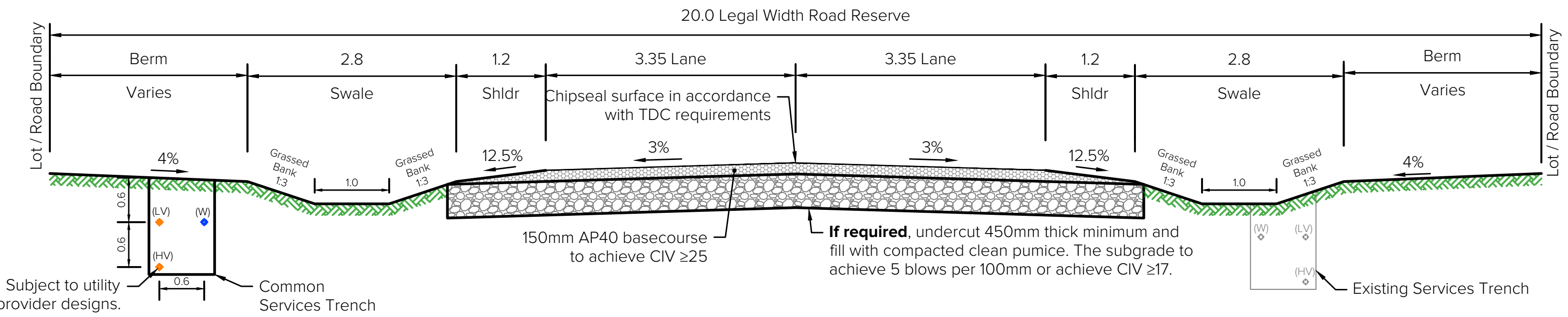
Chainage (m)	Existing GL (m)	Finished RL (m)	Cut (-) and Fill (+)
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10.00	497.23	497.23	0.00
20.00	497.21	497.18	-0.03
30.00	497.12	497.18	0.06
40.00	497.25	497.25	0.00
50.00	497.38	497.39	0.01
60.00	497.58	497.59	0.01
70.00	497.84	497.82	-0.02
80.00	498.05	498.04	0.00
90.00	498.27	498.27	-0.01
100.00	498.50	498.49	0.00
110.00	498.71	498.72	0.01
120.00	498.95	498.94	-0.01
130.00	499.16	499.17	0.01
140.00	499.34	499.39	0.05
150.00	499.60	499.62	0.01
160.00	499.82	499.84	0.02
170.00	500.09	500.07	-0.02
180.00	500.27	500.29	0.02
190.00	500.26	500.33	0.07
200.00	499.92	500.04	0.12
210.00	499.22	499.45	0.22
220.00	498.16	498.53	0.37
230.00	496.98	497.52	0.54
240.00	496.20	496.92	0.72
250.00	496.57	496.84	0.27
260.00	497.39	497.30	-0.09
270.00	498.84	498.25	-0.59
280.00	500.15	499.32	-0.82
290.00	501.38	500.40	-0.99
300.00	502.30	501.46	-0.84
310.00	503.03	502.34	-0.69
320.00	503.49	502.98	-0.51
330.00	503.82	503.36	-0.47
340.00	504.04	503.49	-0.55
350.00	503.51	503.56	0.06
360.00	502.55	503.77	1.22
370.00	501.88	504.26	2.37
380.00	501.11	505.03	3.92
390.00	500.72	506.10	5.37
400.00	502.23	507.45	5.22
410.00	504.17	508.95	4.78
420.00	507.38	510.45	3.06
430.00	509.44	511.95	2.50
440.00	507.35	513.45	6.09
450.00	507.74	514.95	7.21
460.00	514.70	516.45	1.75
470.00	518.44	517.95	-0.50
480.00	520.09	519.45	-0.64
490.00	523.75	520.95	-2.80
500.00	524.85	522.45	-2.41
510.00	525.15	523.95	-1.20
520.00	526.10	525.45	-0.66
530.00	528.33	526.95	-1.38
540.00	530.51	528.45	-2.06
550.00	532.84	529.95	-2.90
560.00	534.74	531.45	-3.30
570.00	535.58	532.95	-2.63
580.00	535.86	534.36	-1.50
590.00	536.42	535.39	-1.03
600.00	536.50	536.02	-0.48
610.00	537.03	536.32	-0.71
620.00	537.39	536.60	-0.79
630.00			

Vert. Geometry: L=6.24 S=-3.63% | L=11.14 S=0.53% | L=39.89 | L=121.75 S=2.25% | L=40.05 | L=7.69 S=-10.42% | L=40.00 | L=30.96 S=10.72% | L=40.00 | L=12.78 S=0.67% | L=50.00 | L=175.17 S=15.00% | L=30.00 | L=17.40 S=2.82%

Horz. Geometry: L=219.89 | L=46.15 R=50.00 | L=29.28 | L=69.57 R=60.00 | L=169.11 | L=50.48 R=50.00 | L=27.43 | L=5.08 R=16.18 | L=3.88

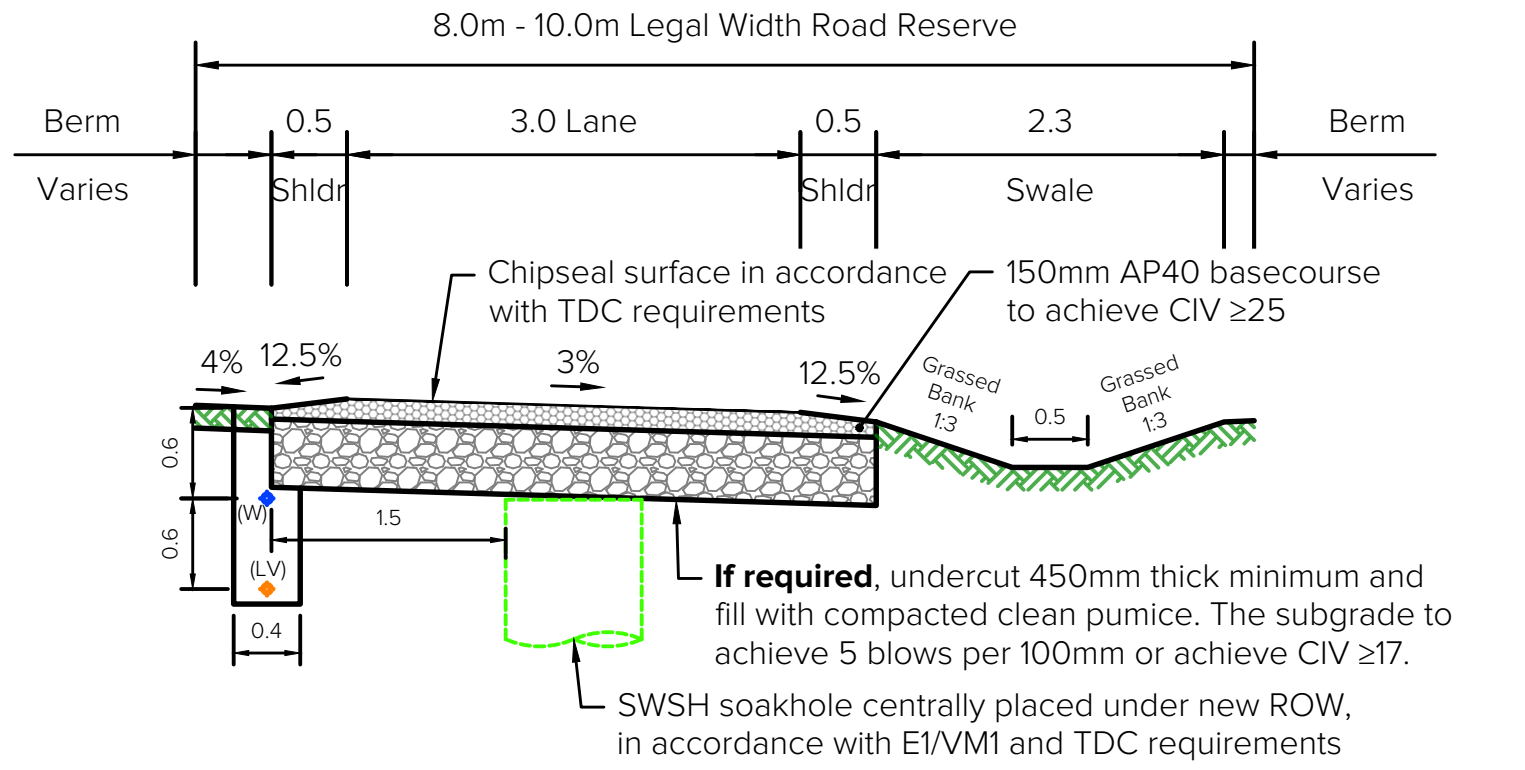
Long Section - Pigeonwood Lane

Scale: 1:2000



Typical Cross Section - Pigeonwood Lane

Scale: 1:100



Typical Cross Section - Shared Access 1

Scale: 1:100

20.0 0 40.0 80.0 120.0

meters 1 : 2000

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Origin Mark Level: 366.203

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LEGEND:
- Site Boundary
- Proposed Road Seal
- Proposed 1.2m Wide Road Shoulder
- Proposed Road Swale
- Proposed 1.5m Wide Footpath

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading - Pigeonwood Lane
Plan, Long & Typ. Cross Section

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	JRT
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): As Shown

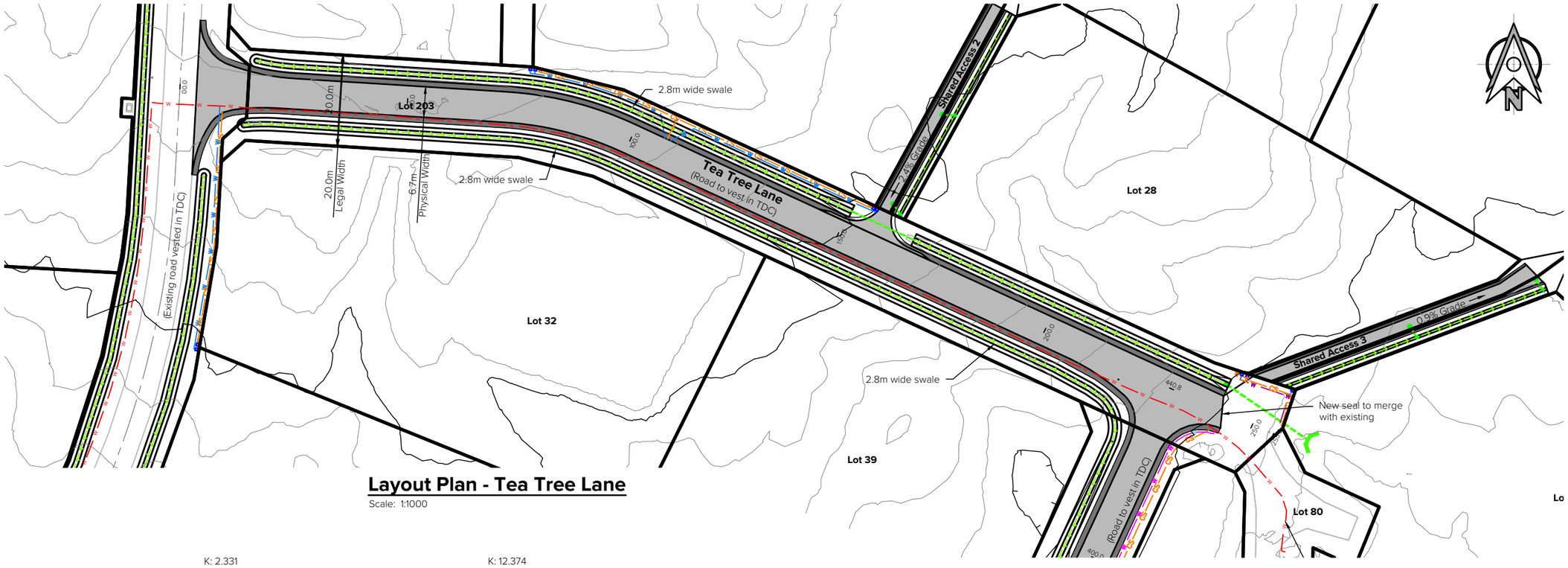
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Status: **RESOURCE CONSENT**

Sheet: A3

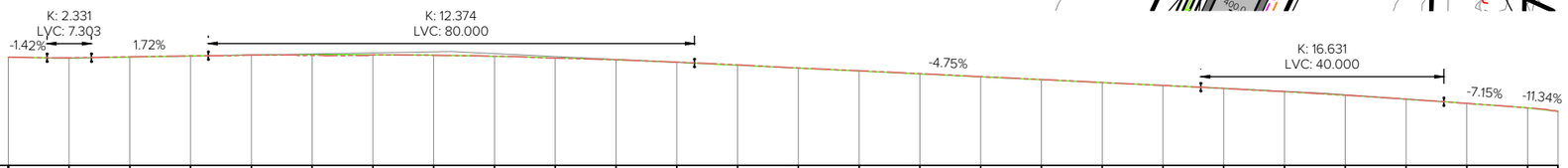
Drawing Plan: 1474-30-RD-302

Rev: A



Layout Plan - Tea Tree Lane

Scale: 1:1000

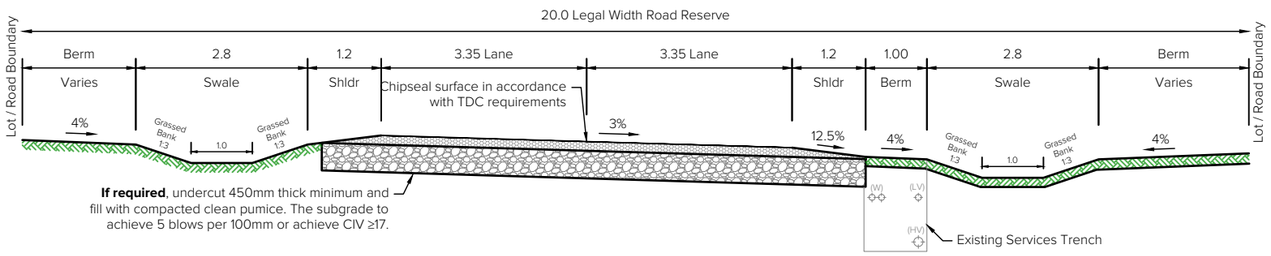


Datum: 475.00m

Existing GL (m)	492.71	492.65	492.80	492.94	493.07	493.02	493.13	493.05	492.90	492.58	492.32	491.92	491.47	490.96	490.51	490.02	489.55	489.07	488.58	488.11	487.61	487.09	486.51	485.86	485.16	484.43	483.85
Finished RL (m)	492.72	492.61	492.75	492.93	493.08	493.15	493.14	493.06	492.89	492.64	492.31	491.90	491.43	490.95	490.48	490.00	489.53	489.05	488.58	488.10	487.62	487.09	486.51	485.86	485.15	484.42	483.85
Cut (-) and Fill (+)	0.01	-0.04	-0.05	-0.01	0.00	0.13	0.01	0.00	-0.01	0.05	-0.01	-0.03	-0.04	-0.01	-0.03	-0.02	-0.02	-0.02	0.00	-0.01	0.01	0.01	0.00	0.00	-0.01	-0.02	0.00
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	255.01
Vert. Geometry		L=6.38 S=-1.42%	L=7.30	L=19.23 S=1.72%			L=80.00									L=83.41 S=-4.75%						L=40.00			L=13.26 S=-7.15%	L=5.60 S=-11.34%	
Horz. Geometry		L=71.66								L=27.71 R=75.00			L=155.63														

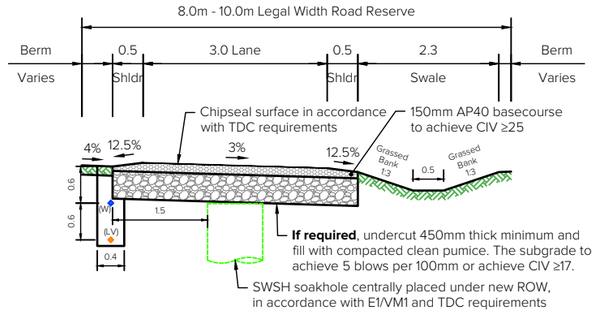
Long Section - Tea Tree Lane

Scale: 1:1000



Typical Cross Section - Tea Tree Lane

Scale: 1:100



Typical Cross Section - Shared Access 2 & 3

Scale: 1:100

10.0 0 20.0 40.0 60.0 1 : 1000
meters

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Origin Mark Level: 366.203

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LEGEND:
- Site Boundary
- Proposed Road Seal
- Proposed 1.2m Wide Road Shoulder
- Proposed Road Swale
- Proposed 1.5m Wide Footpath

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading - Tea Tree Lane
Plan, Long & Typ. Cross Section

Project:
Stages 2-5

Surveyed:				
Designed:	S. Chand	22/07/2026	SC	
Drawn:	S. Chand	22/07/2026	SC	
Checked:	R. Singh	22/07/2026	RKS	
Approved:	J. Thom	22/07/2026	JRT	

Change Log: Refer to Job Drawing Register.

Scale (A3): As Shown

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Status: RESOURCE CONSENT

Sheet: A3

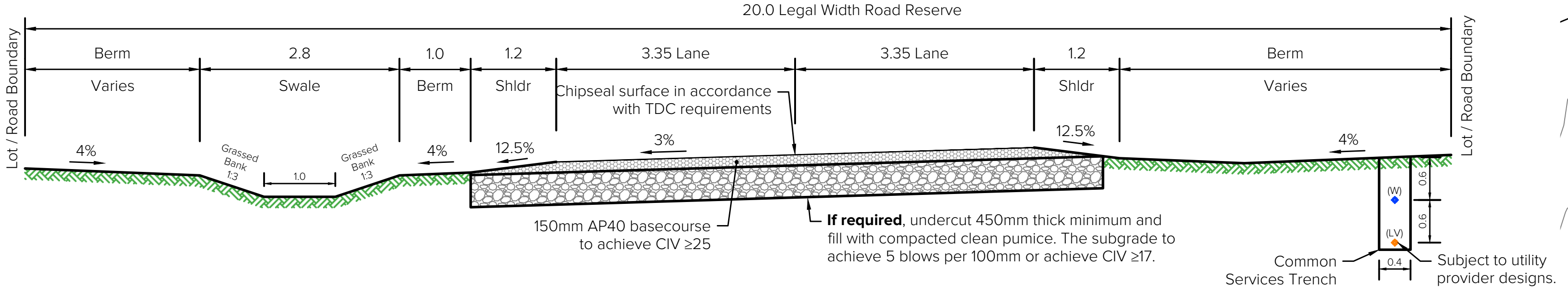
Drawing Plan: 1474-30-RD-303

Rev: A

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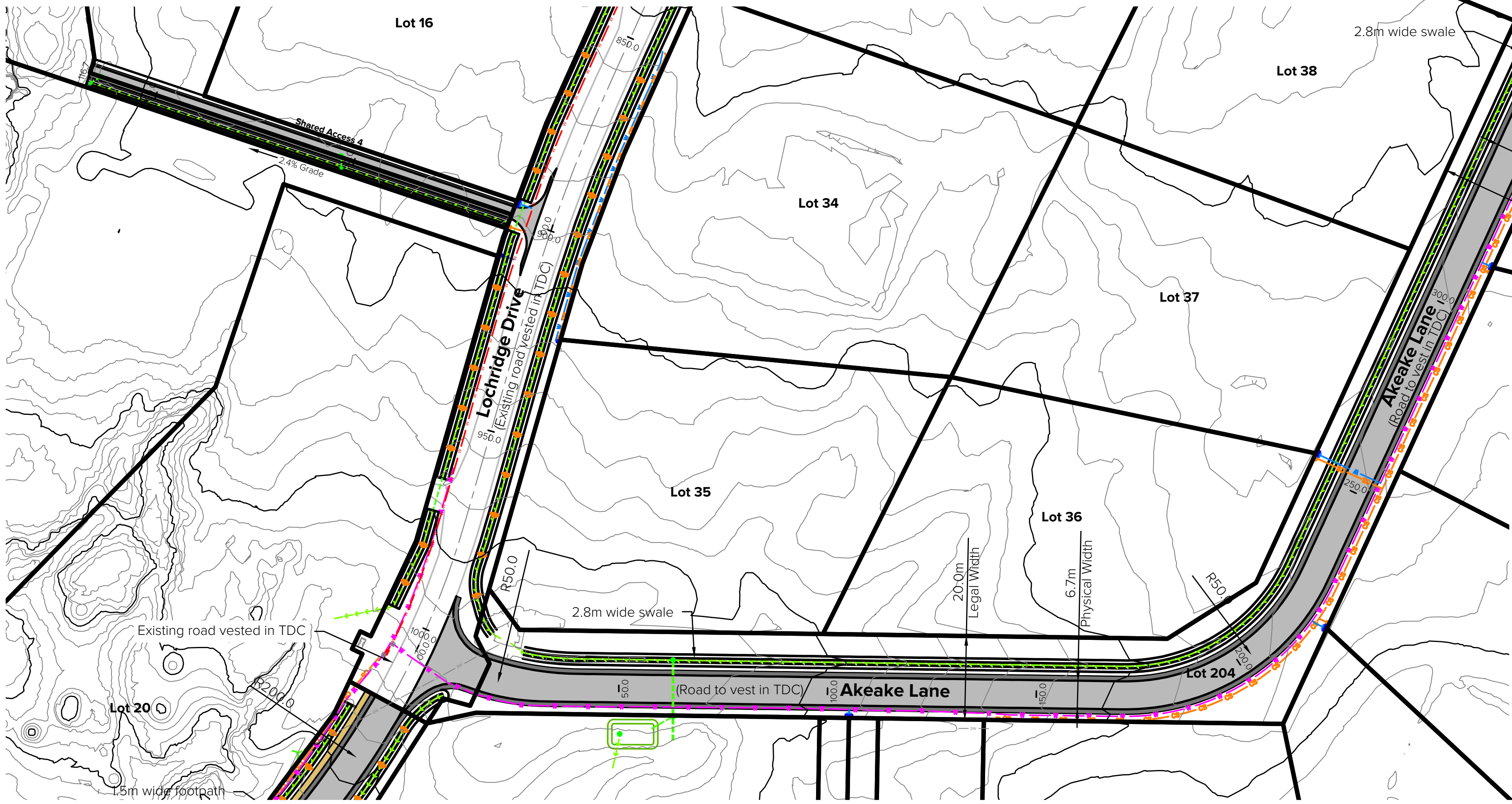
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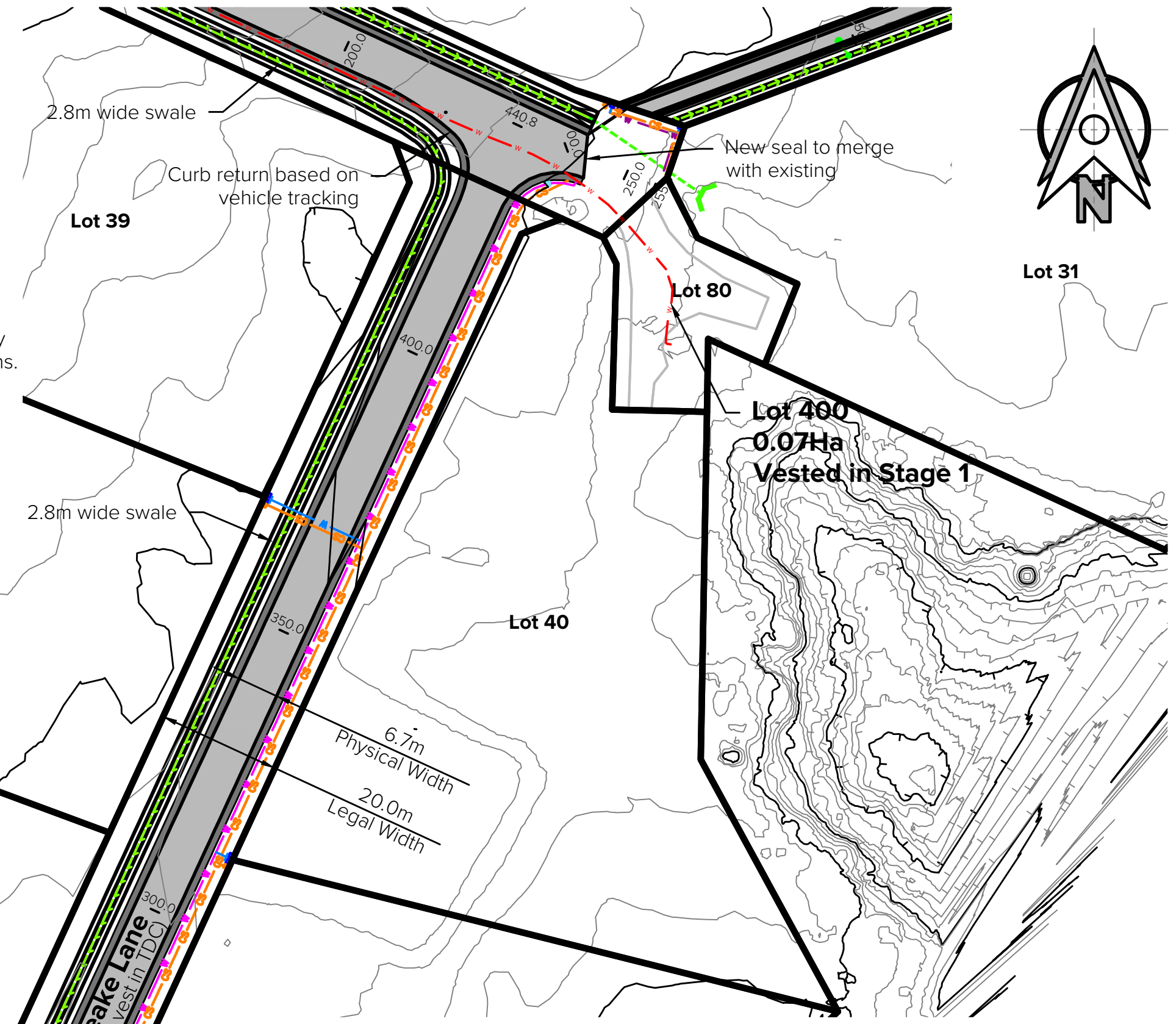
Typical Cross Section - Akeake Lane

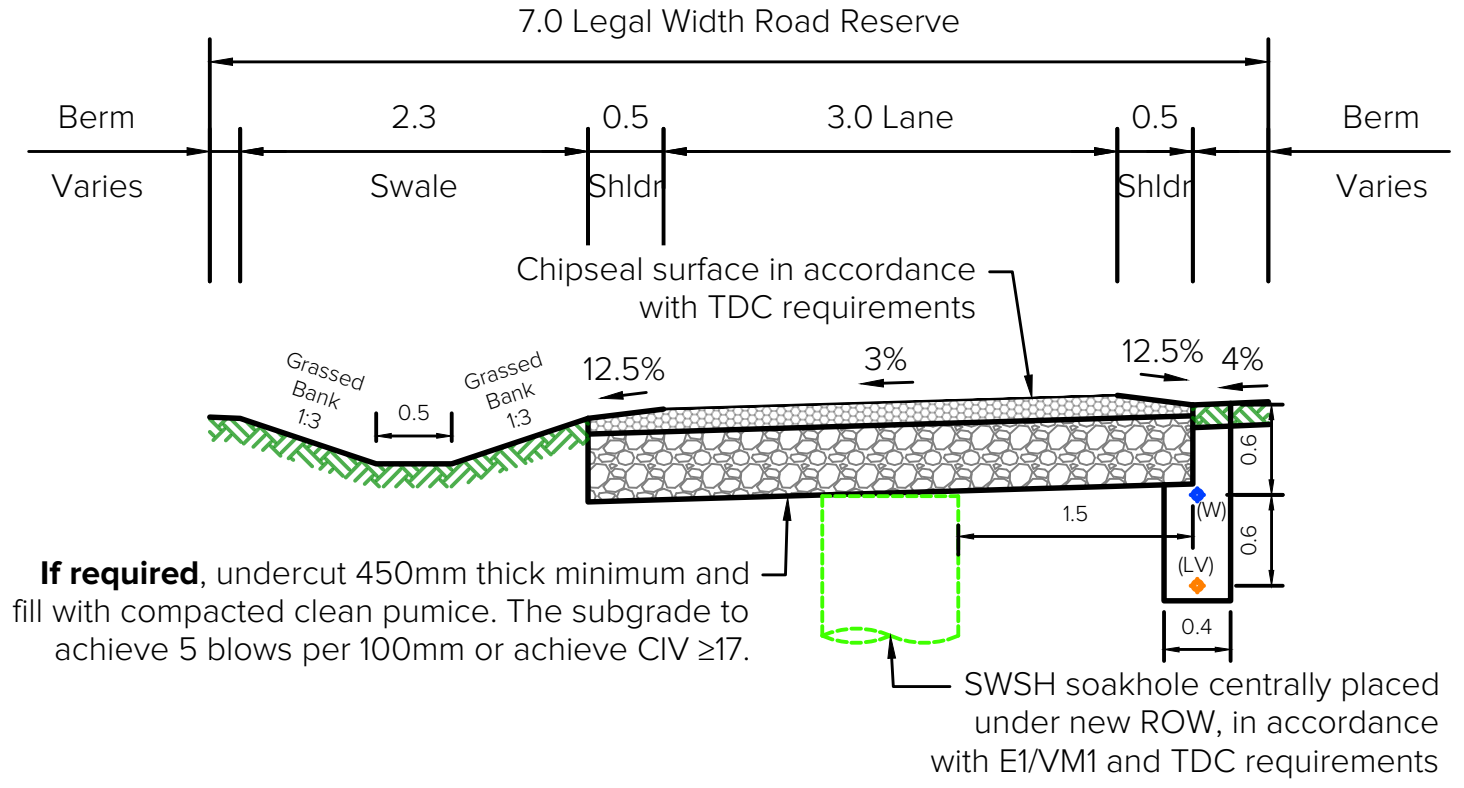
Scale: 1:100



Layout Plan - Akeake Lane

Scale: 1:1500

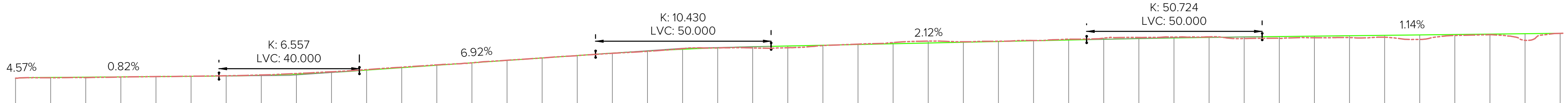




Typical Cross Section - Shared Access 4

Scale: 1:100

15.0 0 30.0 60.0 90.0
1 : 1500
meters



Datum: 465.00m

Chainage (m)	Existing GL (m)	Finished RL (m)	Cut (-) and Fill (+)
0.00	473.05	473.06	0.00
10.00	473.19	473.27	0.09
20.00	473.23	473.36	0.13
30.00	473.40	473.44	0.04
40.00	473.52	473.52	0.00
50.00	473.62	473.60	-0.02
60.00	473.76	473.69	-0.07
70.00	473.99	473.87	-0.11
80.00	474.38	474.22	-0.16
90.00	474.90	474.71	-0.19
100.00	475.50	475.35	-0.15
110.00	476.18	476.05	-0.14
120.00	476.85	476.74	-0.11
130.00	477.40	477.43	0.03
140.00	478.15	478.12	-0.03
150.00	478.81	478.81	0.00
160.00	479.48	479.50	0.02
170.00	480.14	480.18	0.05
180.00	480.70	480.78	0.08
190.00	481.46	481.28	-0.18
200.00	481.64	481.69	0.05
210.00	481.66	482.00	0.34
220.00	481.73	482.22	0.50
230.00	482.33	482.44	0.11
240.00	482.73	482.65	-0.08
250.00	483.18	482.86	-0.32
260.00	483.62	483.07	-0.54
270.00	483.42	483.29	-0.13
280.00	483.56	483.50	-0.06
290.00	483.76	483.71	-0.05
300.00	484.15	483.92	-0.22
310.00	484.45	484.13	-0.32
320.00	484.64	484.32	-0.32
330.00	484.74	484.50	-0.24
340.00	484.82	484.65	-0.17
350.00	484.33	484.78	0.46
360.00	484.39	484.90	0.51
370.00	484.57	485.01	0.45
380.00	484.61	485.13	0.52
390.00	484.71	485.24	0.53
400.00	484.08	485.35	1.28
410.00	485.20	485.47	0.27
420.00	485.41	485.58	0.17
430.00	483.82	485.70	1.87
440.00	485.80	485.81	0.01
450.00			

Vert. Geometry: L=3.69 S=4.57% | L=54.26 S=0.82% | L=40.00 | L=67.44 S=6.92% | L=50.00 | L=89.91 S=2.12% | L=50.00 | L=85.65 S=1.14%

Horz. Geometry: L=10.19 | L=21.77 R=50.00 | L=138.80 | L=57.60 R=50.00 | L=212.39

Long Section - Akeake Lane

Scale: 1:1500

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NOTES:

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

LEGEND:
- Site Boundary
- Proposed Road Seal
- Proposed 1.2m Wide Road Shoulder
- Proposed Road Swale
- Proposed 1.5m Wide Footpath

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading - Akeake Lane
Plan, Long & Typ. Cross Section

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	JRT
Approved:	J. Thom	22/07/2026	JRT

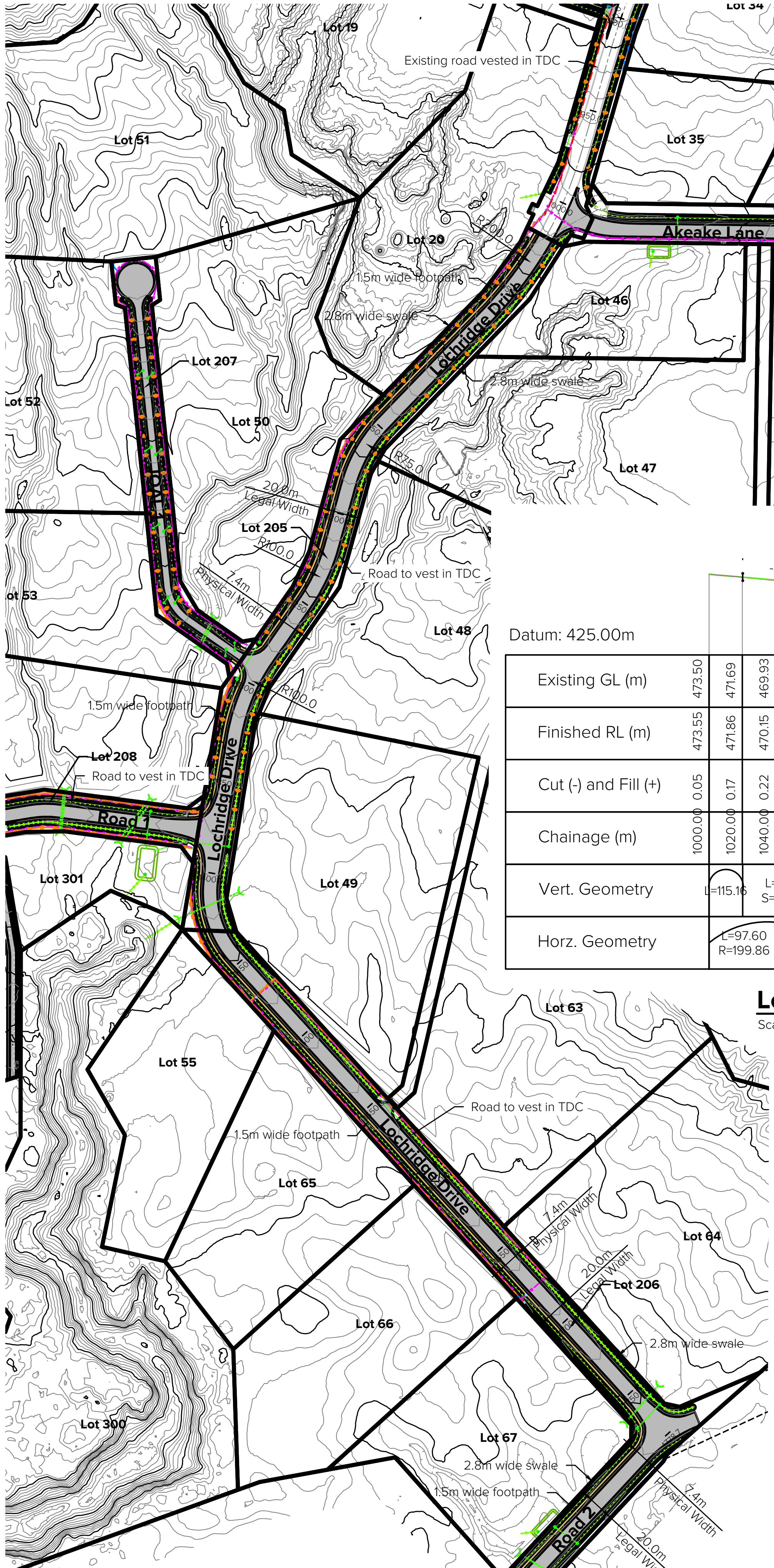
Change Log: Refer to Job Drawing Register.

Scale (A3):
As Shown

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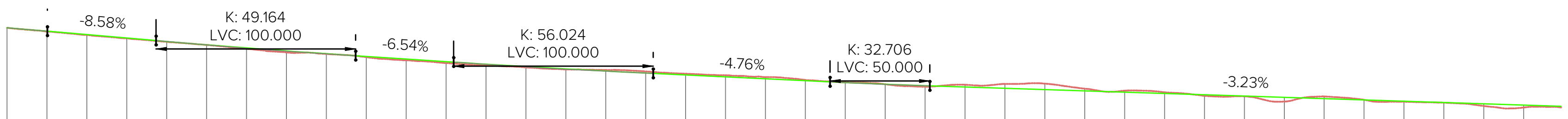
Status: **RESOURCE CONSENT**
Sheet: A3
Drawing Plan: 1474-30-RD-304
Rev: A

KOTARE CONSULTANTS
AUTO CAD
C:\12dS\data\KotareSYN\1474-T - Lochridge Estate_417\01 CADD\3 CAD\1474-30-RD.dwg 16/Sept/2026 12:38 pm



Layout Plan - Lochridge Drive (Extension)

Scale: 1:3000



Datum: 425.00m

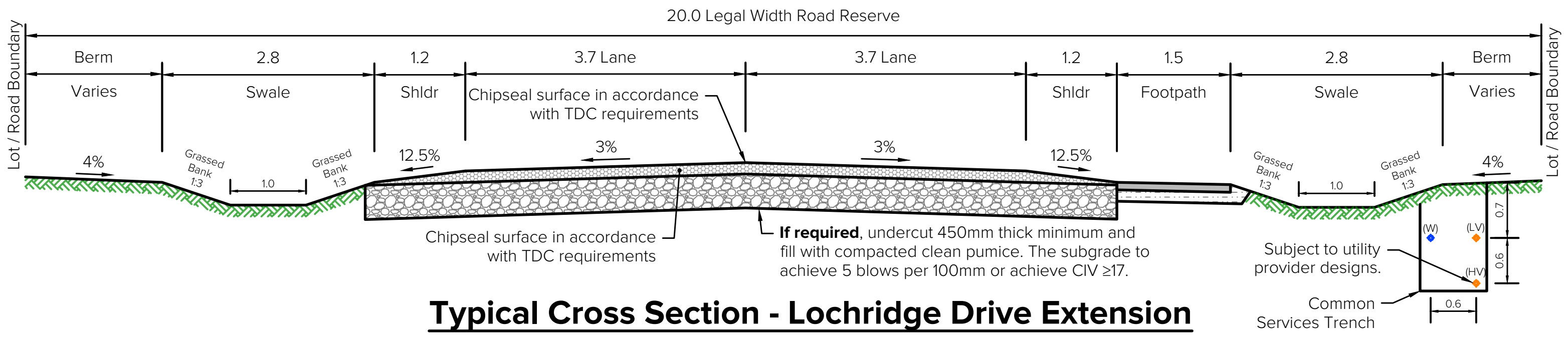
Chainage (m)	Existing GL (m)	Finished RL (m)	Cut (-) and Fill (+)
1000.00	473.50	473.55	0.05
1020.00	471.69	471.86	0.17
1040.00	469.93	470.15	0.22
1060.00	468.22	468.43	0.21
1080.00	466.56	466.72	0.16
1100.00	464.99	465.07	0.07
1120.00	463.05	463.49	0.45
1140.00	461.26	462.00	0.75
1160.00	460.50	460.60	0.10
1180.00	458.90	459.26	0.37
1200.00	457.34	457.96	0.62
1220.00	455.95	456.65	0.70
1240.00	454.72	455.36	0.64
1260.00	453.77	454.15	0.37
1280.00	452.79	453.00	0.22
1300.00	452.49	451.93	-0.56
1320.00	451.75	450.93	-0.82
1340.00	450.62	449.98	-0.64
1360.00	449.85	449.03	-0.82
1380.00	448.90	448.07	-0.83
1400.00	447.51	447.12	-0.38
1420.00	446.29	446.18	-0.11
1440.00	445.36	445.34	-0.02
1460.00	444.11	444.61	0.50
1480.00	445.09	443.97	-1.12
1500.00	445.53	443.32	-2.21
1520.00	445.65	442.68	-2.98
1540.00	443.12	442.03	-1.09
1560.00	442.13	441.38	-0.75
1580.00	441.31	440.74	-0.57
1600.00	439.56	440.09	0.53
1620.00	439.30	439.45	0.15
1640.00	436.71	438.80	2.09
1660.00	439.25	438.16	-1.09
1680.00	437.57	437.51	-0.06
1700.00	436.59	436.86	0.27
1720.00	436.11	436.22	0.10
1740.00	434.48	435.57	1.09
1760.00	433.75	434.93	1.18
1778.74			

Vert. Geometry
L=115.16
L=54.62 S=-8.58%
L=100.00
L=49.24 S=-6.54%
L=100.00
L=88.68 S=-4.76%
L=50.00
L=316.51 S=-3.23%

Horz. Geometry
L=97.60 R=199.86
L=76.84
L=37.35 R=75.00
L=32.72
L=33.98 R=100.00
L=33.86
L=44.70 R=100.00
L=72.18
L=44.97 R=50.00
L=332.12

Long Section - Lochridge Drive Extension

Scale: 1:3500



Typical Cross Section - Lochridge Drive Extension

Scale: 1:100

30.0 0 60.0 120.0 180.0
1 : 3000
meters

Kotare CONSULTANTS
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NOTES:

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

LEGEND:
- Site Boundary
- Proposed Road Seal
- Proposed 1.2m Wide Road Shoulder
- Proposed Road Swale
- Proposed 1.5m Wide Footpath

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading - Lochridge Drive
Plan, Long & Typ. Cross Section

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

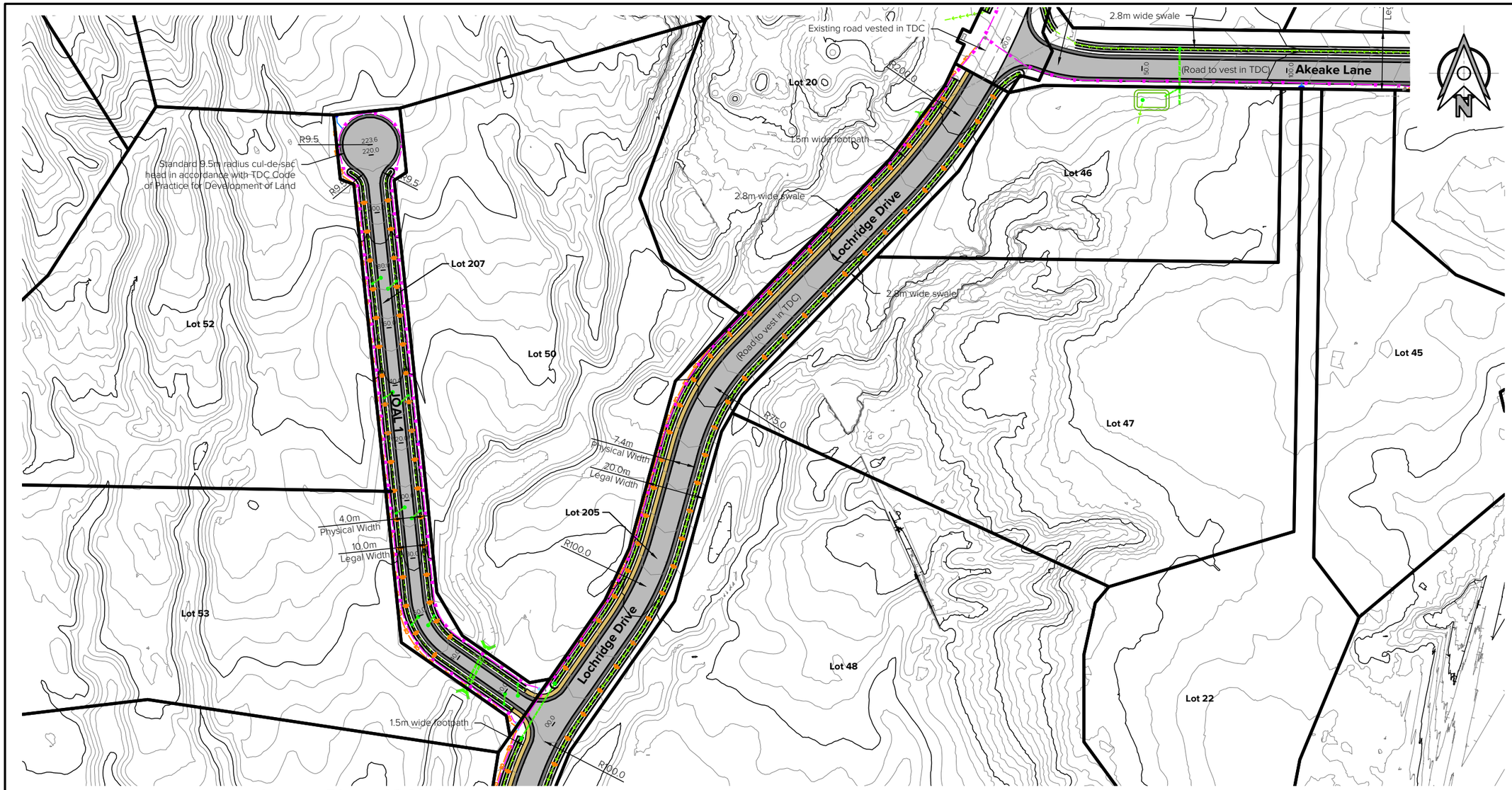
Scale (A3):
As Shown

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Status: **RESOURCE CONSENT**
Sheet: A3
Drawing Plan: 1474-30-RD-305
Rev: A

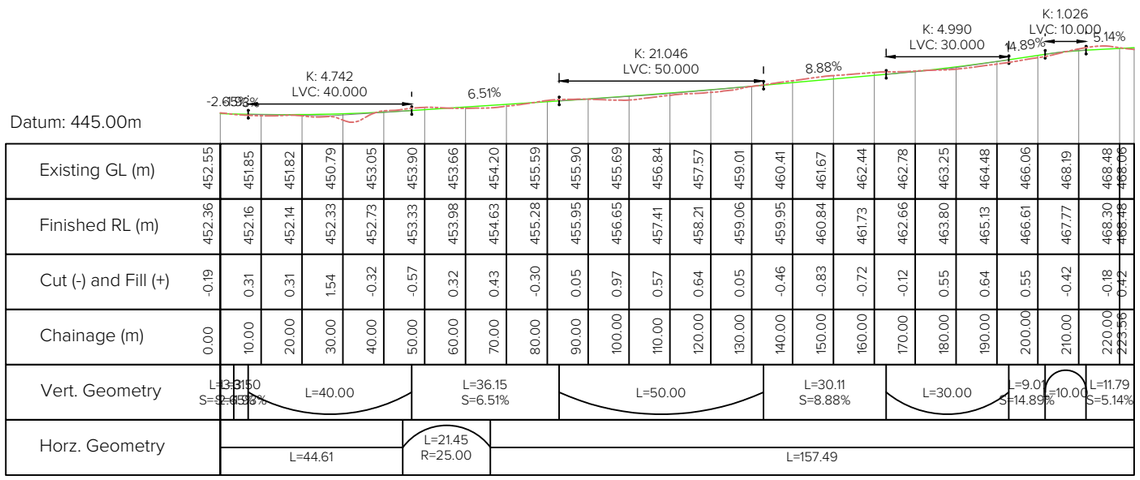
KOTARE CONSULTANTS
AUTO CAD

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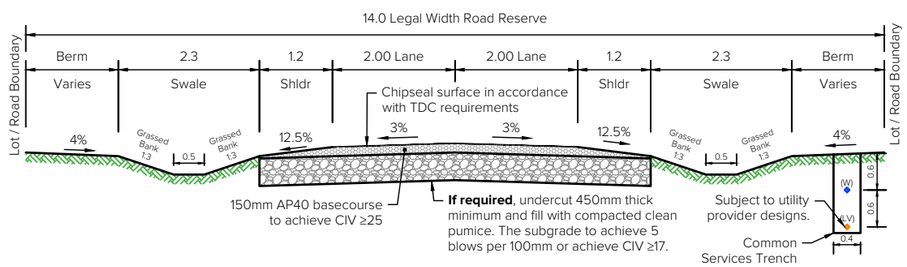
Layout Plan - JOAL 1

Scale: 1:1500



Long Section - JOAL 1

Scale: 1:1500



Typical Cross Section - JOAL 1

Scale: 1:100

15.0 0 30.0 60.0 90.0

1 : 1500

meters

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NOTES:

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

LEGEND:

- Site Boundary
- Proposed Road Seal
- Proposed 1.2m Wide Road Shoulder
- Proposed Road Swale
- Proposed 1.5m Wide Footpath

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading - JOAL 1
Plan, Long & Typ. Cross Section

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): As Shown

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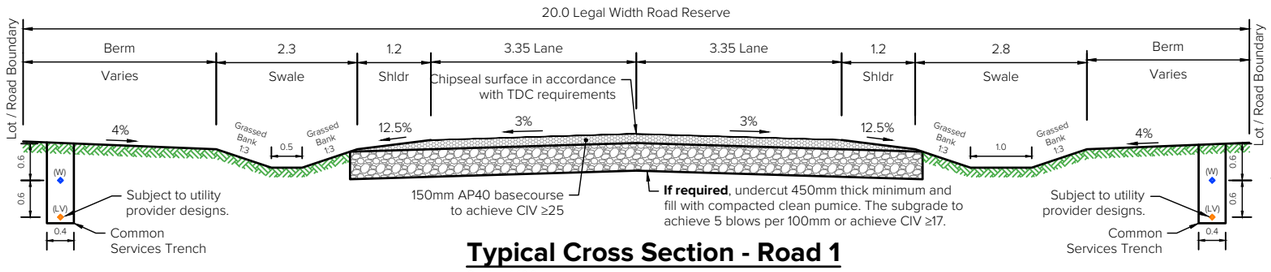
Status: **RESOURCE CONSENT**

Sheet: A3

Drawing Plan: 1474-30-RD-306

Rev: A

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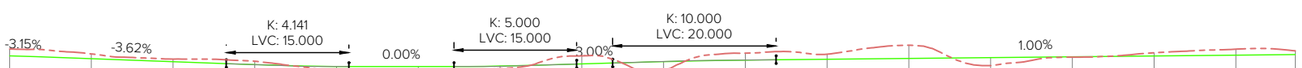


Typical Cross Section - Road 1

Scale: 1:100

Layout Plan - Road 1

Scale: 1:750



Datum: 440.00m

Existing GL (m)	448.98	448.38	447.74	447.48	446.15	445.75	446.57	448.13	446.36	448.46	448.35	449.44	446.95	447.97	448.51	448.95	448.76
Finished RL (m)	448.13	447.79	447.43	447.07	446.83	446.83	446.89	447.15	447.43	447.61	447.72	447.82	447.92	448.02	448.12	448.22	448.29
Cut (-) and Fill (+)	-0.84	-0.59	-0.32	-0.41	0.68	1.08	0.32	-0.99	1.07	-0.85	-0.62	-1.62	0.98	0.05	-0.39	-0.73	-0.46
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	157.26
Vert. Geometry	L=3.24 S=-3.15%	L=23.29 S=-3.62%	L=15.00	L=12.85 S=0.00%	L=15.00	L=4.41 S=3.00%	L=20.00	L=63.51 S=1.00%									
Horz. Geometry	L=82.74	L=14.72 R=50.00	L=59.81														

Long Section - Road 1

Scale: 1:750

7.5 0 15.0 30.0 45.0
1 : 750
meters

Kotare CONSULTANTS
www.kotareconsultants.nz

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Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

LEGEND:

- Site Boundary
- Proposed Road Seal
- Proposed 1.2m Wide Road Shoulder
- Proposed Road Swale
- Proposed 1.5m Wide Footpath

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading - Road 1
Plan, Long & Typ. Cross Section

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): As Shown

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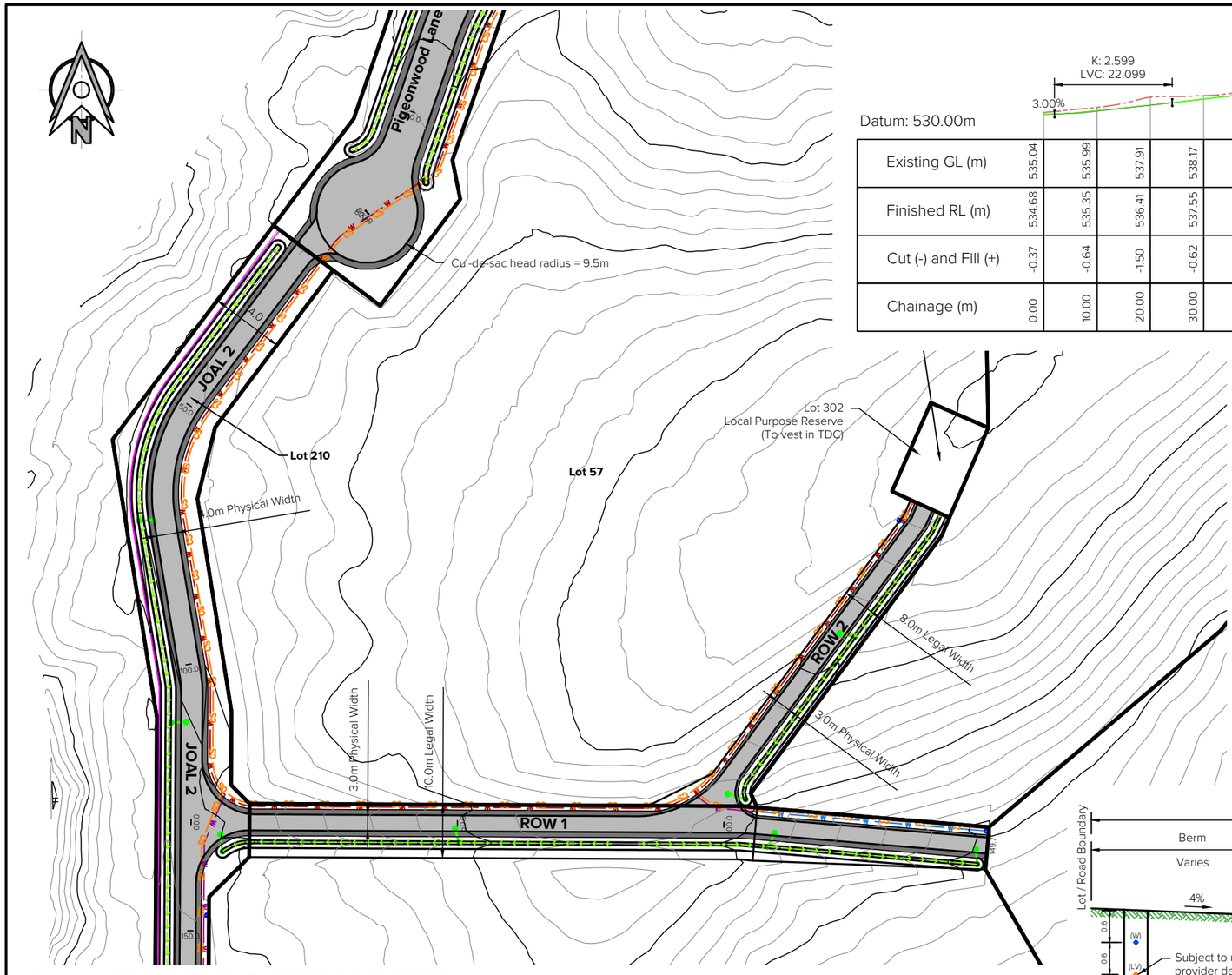
Status: RESOURCE CONSENT

Sheet: A3

Drawing Plan: 1474-30-RD-307

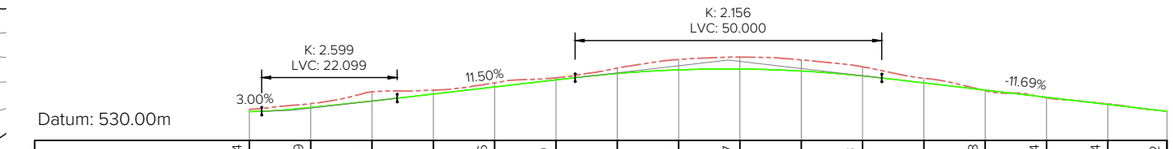
Rev: A

KOTARE CONSULTANTS
AUTO CAD



Layout Plan - JOAL 2, ROW 1 & ROW 2

Scale: 1:1000

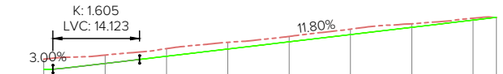


Datum: 530.00m

Existing GL (m)	535.04	535.99	537.91	538.17	539.36	540.19	541.78	543.16	543.57	543.12	541.98	540.11	538.08	536.94	535.94	534.72
Finished RL (m)	534.68	535.35	536.41	537.55	538.70	539.85	540.89	541.49	541.62	541.30	540.50	539.36	538.19	537.02	535.85	534.72
Cut (-) and Fill (+)	-0.37	-0.64	-1.50	-0.62	-0.66	-0.34	-0.89	-1.68	-1.95	-1.82	-1.48	-0.76	0.11	0.08	-0.09	0.00
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	149.65

Long Section - ROW 1

Scale: 1:1000

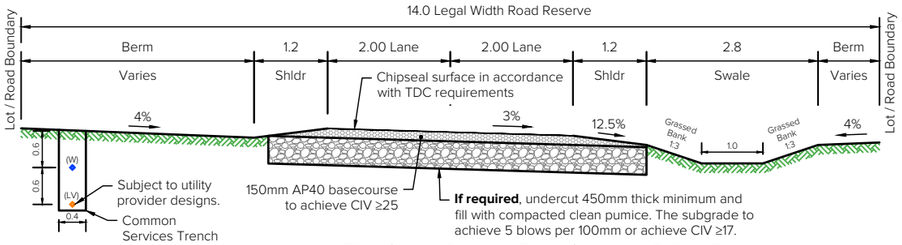


Datum: 539.00m

Existing GL (m)	542.67	543.33	544.39	545.42	546.37	547.57	548.43	549.35	549.45
Finished RL (m)	541.00	541.97	543.14	544.32	545.50	546.68	547.86	549.04	549.49
Cut (-) and Fill (+)	-1.67	-1.37	-1.25	-1.10	-0.87	-0.89	-0.57	-0.31	0.03
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	73.81

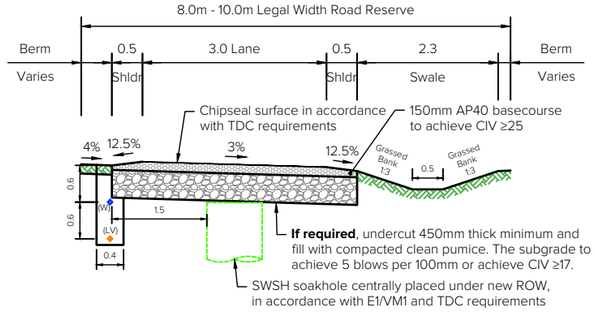
Long Section - ROW 2

Scale: 1:1000



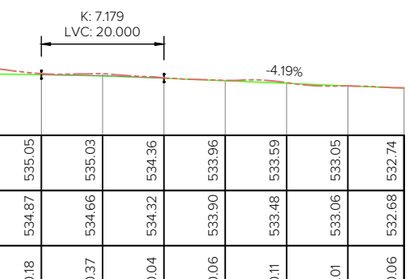
Typical Cross Section - JOAL 2

Scale: 1:100



Typical Cross Section - ROW 1 & 2

Scale: 1:100



Datum: 525.00m

Existing GL (m)	537.38	536.48	536.37	535.84	536.22	535.92	534.89	535.77	535.57	535.78	535.23	536.07	535.05	535.03	534.36	533.96	533.59	533.05	532.74
Finished RL (m)	536.63	536.72	536.51	536.29	536.09	535.90	535.73	535.58	535.43	535.29	535.15	535.01	534.87	534.66	534.32	533.90	533.48	533.06	532.68
Cut (-) and Fill (+)	-0.75	0.24	0.14	0.45	-0.13	-0.02	0.84	-0.19	-0.13	-0.48	-0.07	-1.05	-0.18	-0.37	-0.04	-0.06	-0.11	0.01	-0.06
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	179.16
Vert. Geometry		L=10.18 S=0.94%	L=14.13 S=-2.20%	L=50.00							L=45.69 S=-1.40%			L=20.00		L=39.19 S=-4.19%			
Horz. Geometry		L=8.17	L=6.70 R=15.00	L=33.36				L=24.28 R=30.00			L=29.99	L=2.96 R=15.00		L=74.10					

Long Section - JOAL 2

Scale: 1:1000

10.0 0 20.0 40.0 60.0

1 : 1000

meters

NOTES:

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

LEGEND:

- Site Boundary
- Proposed Road Seal
- Proposed 1.2m Wide Road Shoulder
- Proposed Road Swale
- Proposed 1.5m Wide Footpath

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading - JOAL 2, ROW 1 & 2
Plan, Long & Typ. Cross Section

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): As Shown

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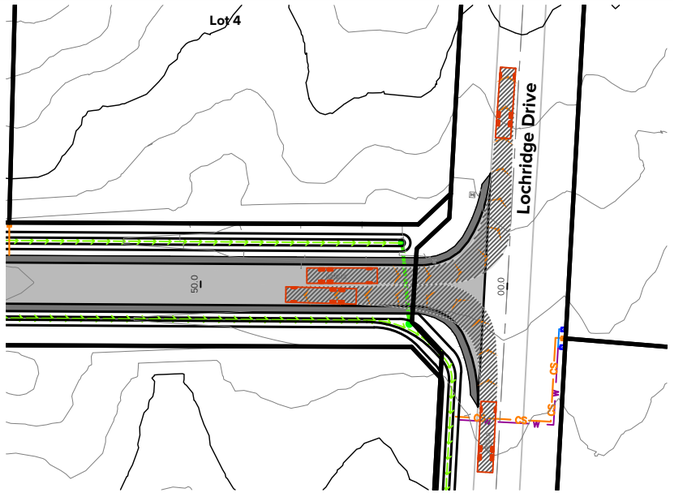
Status: RESOURCE CONSENT

Sheet: A3

Drawing Plan: 1474-30-RD-308

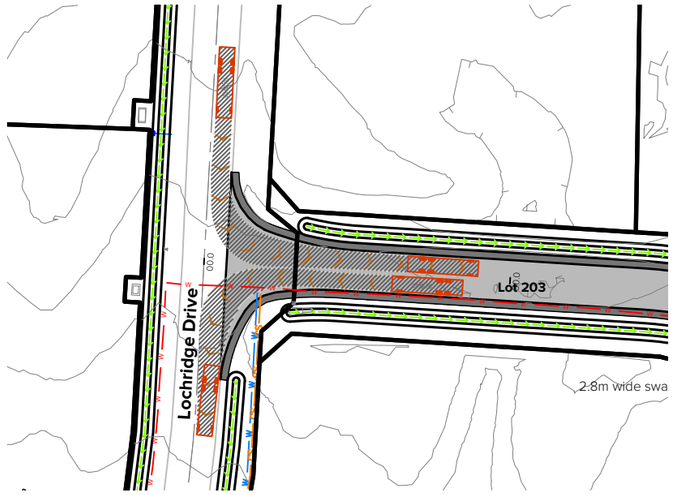
Rev: A

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AUTO CAD



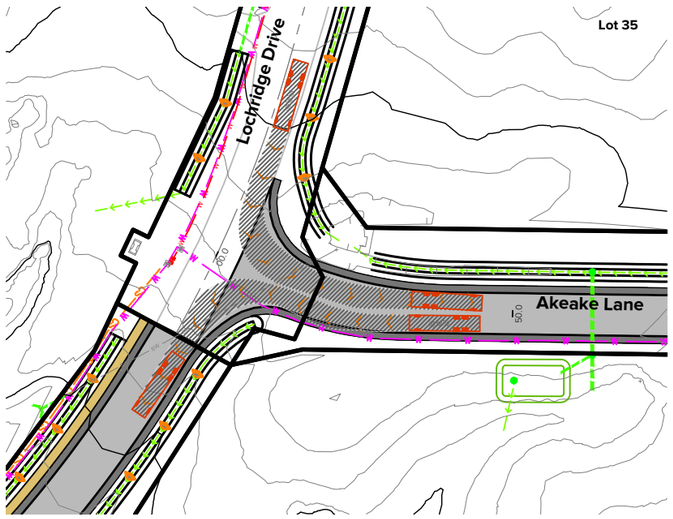
Vehicle Tracking - Lochridge Drive / Pigeonwood Lane Junction

Scale: 1:1000



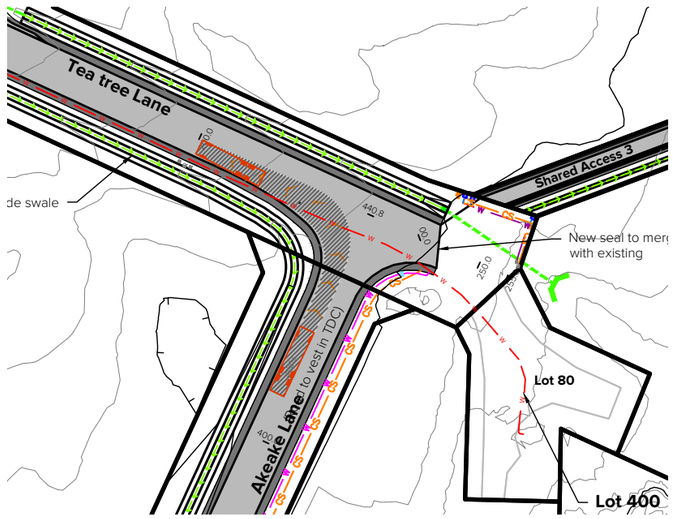
Vehicle Tracking - Lochridge Drive / Tea Tree Lane Junction

Scale: 1:1000



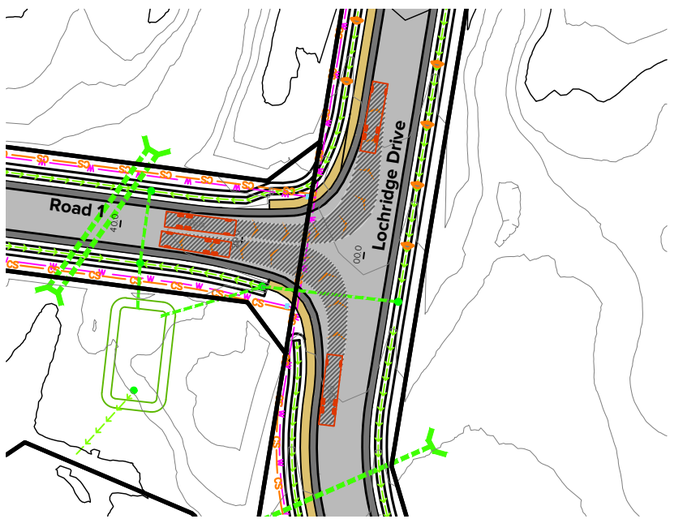
Vehicle Tracking - Lochridge Drive / Akeake Lane Junction

Scale: 1:1000



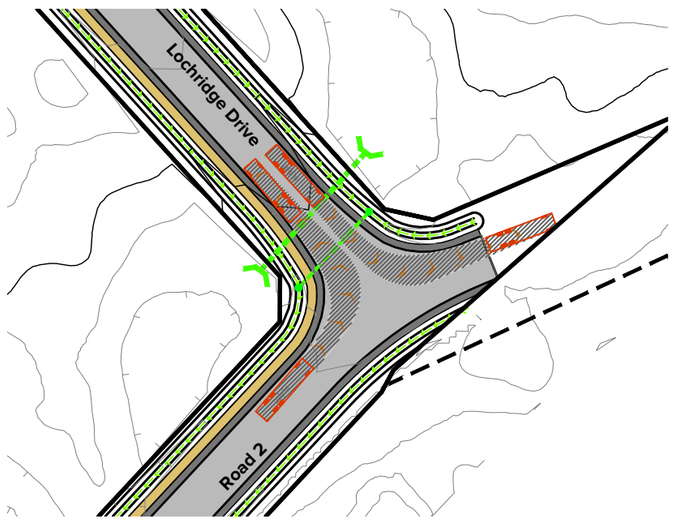
Vehicle Tracking - Akeake Lane / Tea Tree Lane Junction

Scale: 1:1000



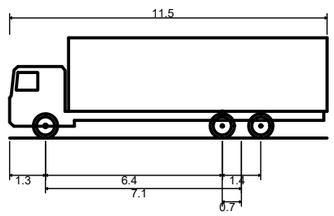
Vehicle Tracking - Lochridge Drive / Road 1 Junction

Scale: 1:1000



Vehicle Tracking - Lochridge Drive / Road 2 Junction

Scale: 1:1000



Large Rigid Truck	
Overall Length	11.500m
Overall Width	2.500m
Overall Body Height	3.632m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	12.000m

Vehicle Tracking Design Vehicle

NTS

10.0 0 20.0 40.0 60.0 1 : 1000

meters

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www.kotareconsultants.nz

NOTES:

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

LEGEND:

- Site Boundary
- Proposed Road Seal
- Proposed 1.2m Wide Road Shoulder
- Proposed Road Swale
- Proposed 1.5m Wide Footpath

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading - Local/Collector Road Junction Vehicle Tracking

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 : 1000

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Status: **RESOURCE CONSENT**

Sheet: A3

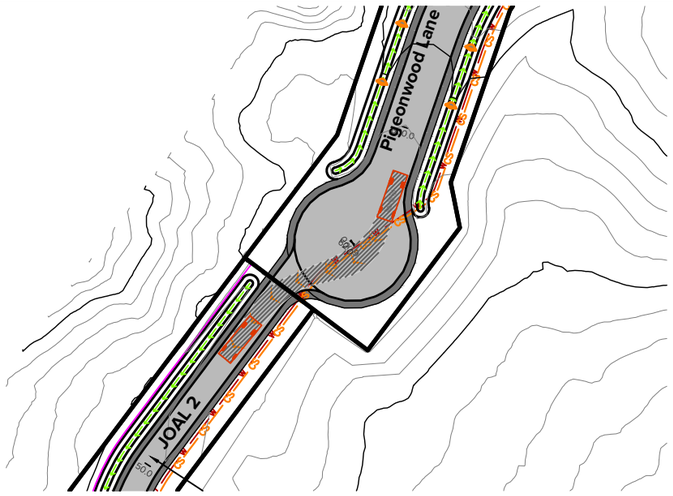
Drawing Plan: 1474-30-RD-321

Rev: A

KOTARE CONSULTANTS

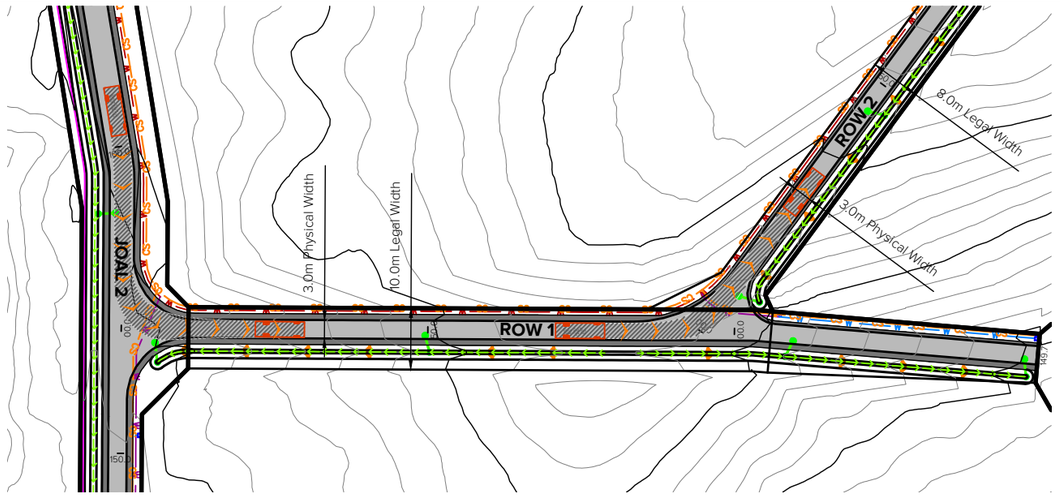
AUTO CAD

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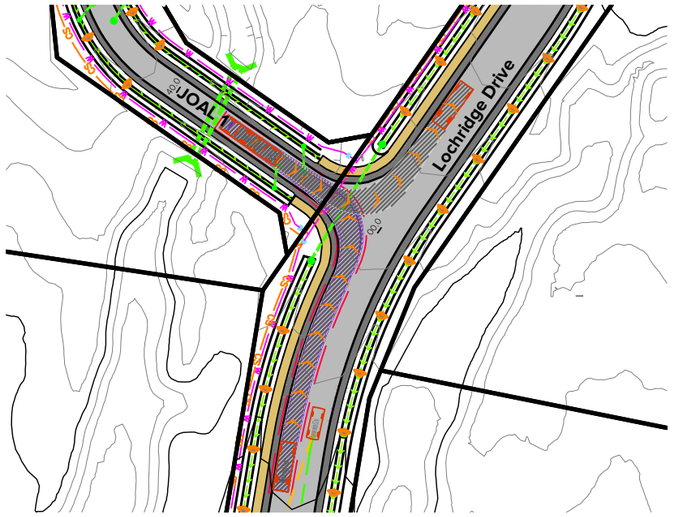
Vehicle Tracking - JOAL 2 / Pigeonwood Lane Junction

Scale: 1:1000



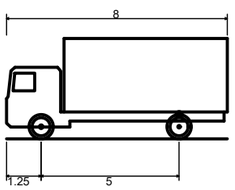
Vehicle Tracking - JOAL 2 / ROW 1 / ROW 2 Junction

Scale: 1:1000



Vehicle Tracking - Lochridge Drive / JOAL 1 Junction

Scale: 1:1000



Medium Rigid Truck	
Overall Length	8.000m
Overall Width	2.500m
Overall Body Height	3.632m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	10.000m

Vehicle Tracking Design Vehicle

NTS

10.0 0 20.0 40.0 60.0

1 : 1000

meters

Kotare CONSULTANTS
www.kotareconsultants.nz

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.
LEGEND:

- Site Boundary
- Proposed Road Seal
- Proposed 1.2m Wide Road Shoulder
- Proposed Road Swale
- Proposed 1.5m Wide Footpath

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading - Local/JOAL/ROW Junction Vehicle Tracking

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT
Change Log: Refer to Job Drawing Register.			

Scale (A3): 1 : 1000

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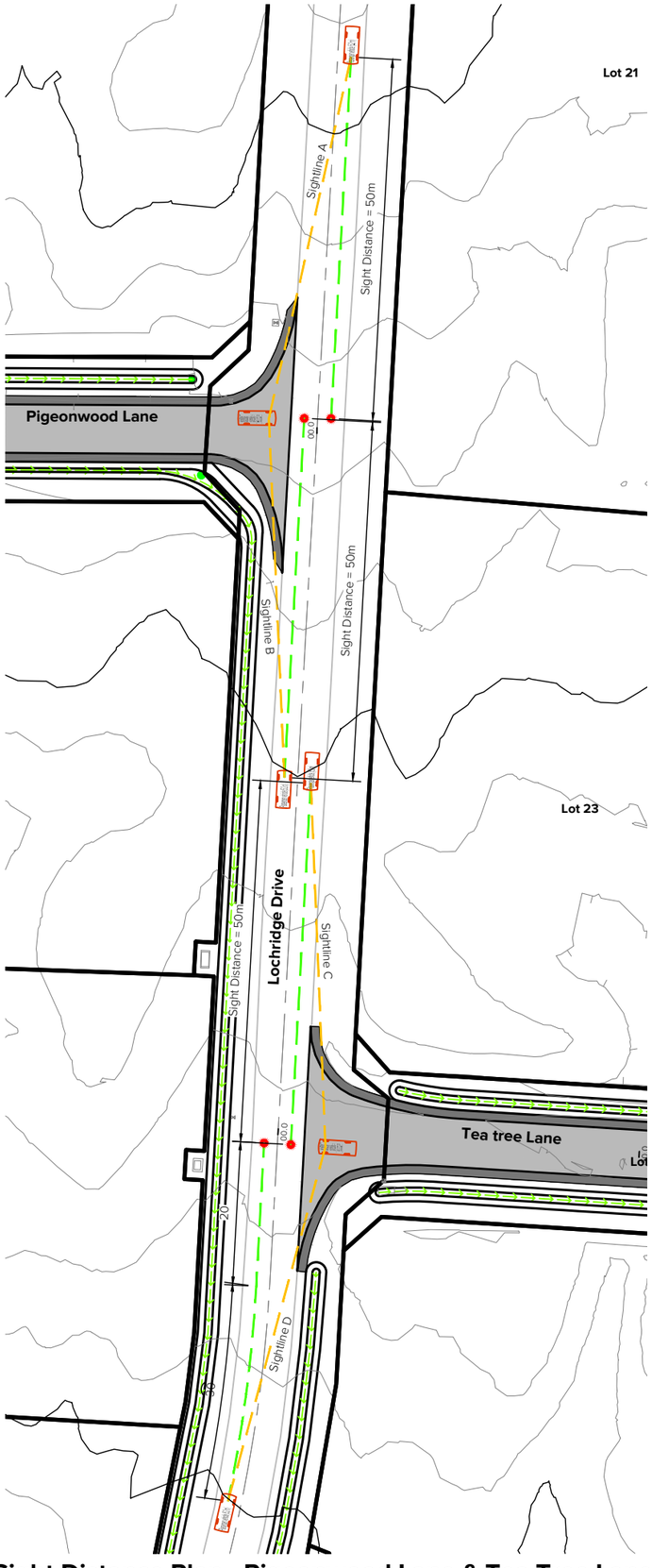
Status: **RESOURCE CONSENT**

Sheet: A3

Drawing Plan: 1474-30-RD-322

Rev: A

KOTARE CONSULTANTS
AUTO CAD



Sight Distance Plan - Pigeonwood Lane & Tea Tree Lane

Scale: 1:750

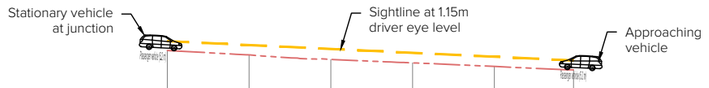


Datum: 490.00m

Existing GL (m)	497.32	497.87	498.59	499.29	499.98	500.68
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00

Pigeonwood Lane - Sightline A

Scale: 1:750

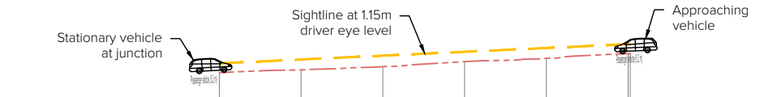


Datum: 485.00m

Existing GL (m)	497.32	496.79	496.24	495.82	495.38	494.96
Chainage (m)	0.00	10.00	20.00	30.00	40.00	49.68

Pigeonwood Lane - Sightline A

Scale: 1:750

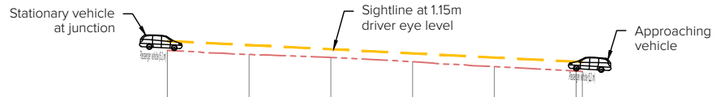


Datum: 485.00m

Existing GL (m)	492.56	492.91	493.29	493.91	494.31	494.90
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00

Tea Tree Lane - Sightline C

Scale: 1:750



Datum: 480.00m

Existing GL (m)	492.56	492.07	491.69	491.17	490.58	489.93
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00

Tea Tree Lane - Sightline D

Scale: 1:750

20.0 0 40.0 80.0 120.0

1 : 2000

meters

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NOTES:

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Existing ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours shown hereon are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

Safe intersection Sight Distance (SISD) assessment conducted in accordance with the Taupo District Plan based on a design speed of 50km/h and driver eye height of 1.15m.

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading
Sight Distance Assessment

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): As Shown

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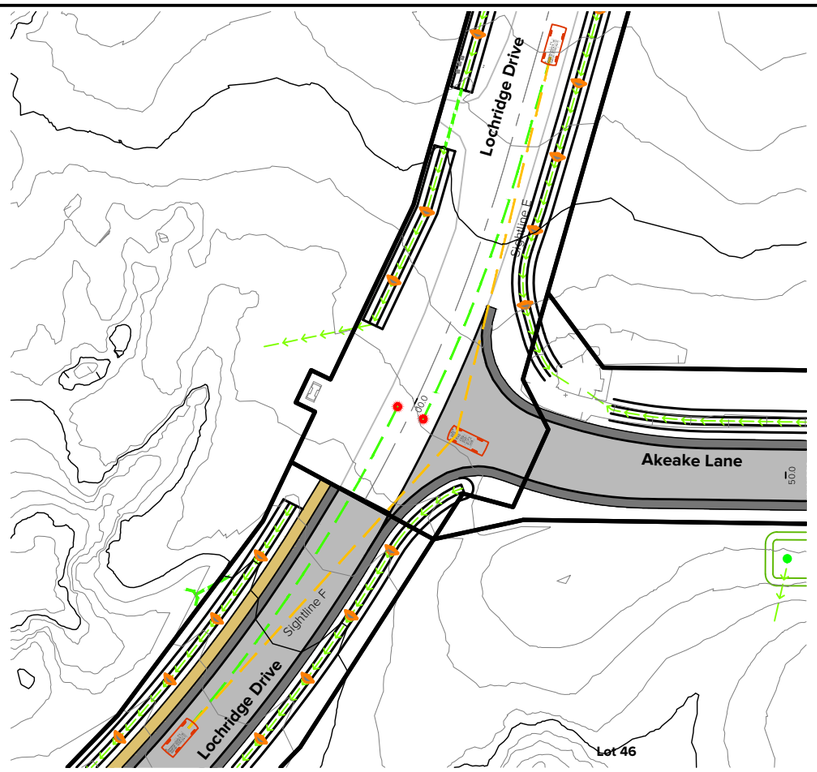
Status: RESOURCE CONSENT

Sheet: A3

Drawing Plan: 1474-30-RD-331

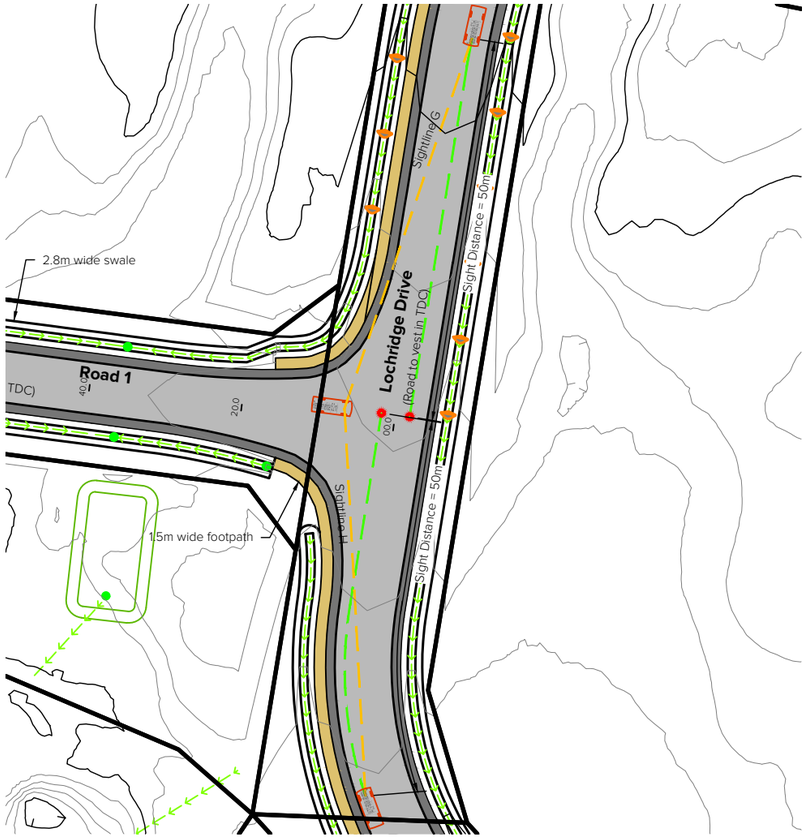
Rev: A

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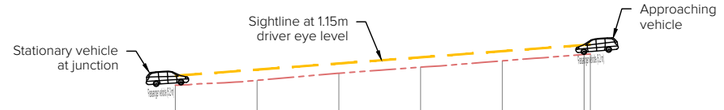
Sight Distance Plan - Akeake Lane

Scale: 1:750



Sight Distance Plan - Road 1

Scale: 1:750

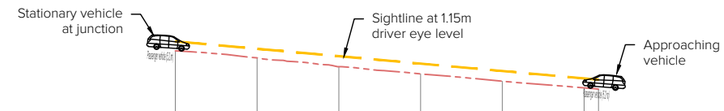


Datum: 465.00m

Existing GL (m)	473.13	473.72	474.59	475.33	476.10	476.88 476.88
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00 50.00

Akeake Lane - Sightline E

Scale: 1:750

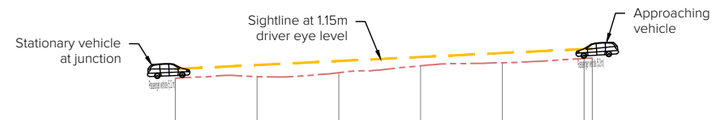


Datum: 460.00m

Existing GL (m)	473.13	472.27	471.18	470.31	469.40	468.60 468.44
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00 51.77

Akeake Lane - Sightline F

Scale: 1:750

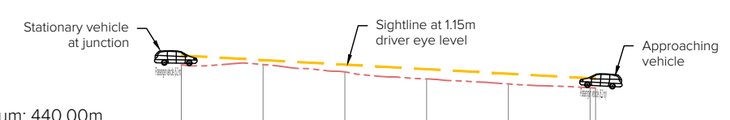


Datum: 440.00m

Existing GL (m)	448.79	449.00	449.49	450.33	450.70	451.23 451.23
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00 51.00

Road 1 - Sightline G

Scale: 1:750



Datum: 440.00m

Existing GL (m)	448.79	448.83	447.93	447.08	446.47	446.09 446.09
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00 50.89

Road 1 - Sightline H

Scale: 1:750

20.0 0 40.0 80.0 120.0

1 : 2000

meters

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Existing ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours shown hereon are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

Safe intersection Sight Distance (SISD) assessment conducted in accordance with the Taupo District Plan based on a design speed of 50km/h and driver eye height of 1.15m.

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading
Sight Distance Assessment

Project:
Stages 2-5

Surveyed:				
Designed:	S. Chand	22/07/2026	SC	
Drawn:	S. Chand	22/07/2026	SC	
Checked:	R. Singh	22/07/2026	RKS	
Approved:	J. Thom	22/07/2026	JRT	

Change Log: Refer to Job Drawing Register.

Scale (A3): As Shown

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Status: RESOURCE CONSENT

Sheet: A3

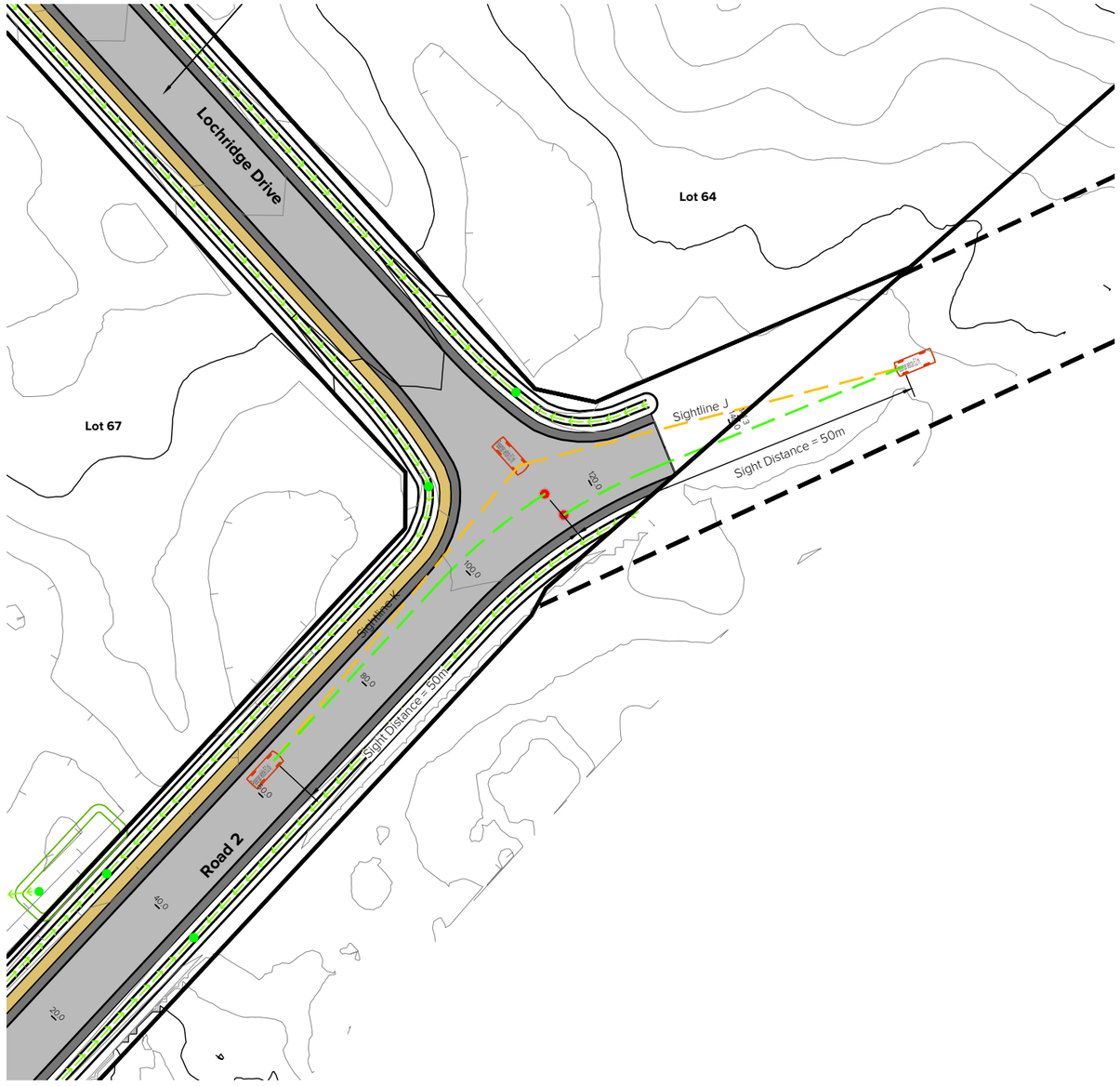
Drawing Plan: 1474-30-RD-332

Rev: A

KOTARE CONSULTANTS

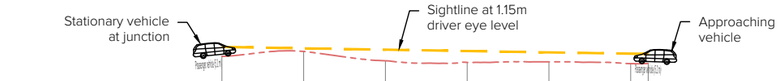
AUTO CAD

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Sight Distance Plan - Lochridge Drive & Road 2

Scale: 1:750

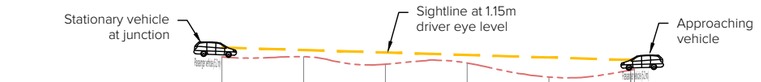


Datum: 425.00m

Existing GL (m)	434.10	434.71	433.56	433.36	433.44	433.21	433.24
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00	52.15

Lochridge Drive - Sightline J

Scale: 1:750



Datum: 425.00m

Existing GL (m)	434.10	434.13	433.22	433.36	431.64	432.48	432.48
Chainage (m)	0.00	10.00	20.00	30.00	40.00	50.00	50.00

Lochridge Drive - Sightline K

Scale: 1:750

20.0 0 40.0 80.0 120.0

1 : 2000

meters

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www.kotareconsultants.nz

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Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Existing ground contours shown hereon. Contour Interval: 1.0m

Existing ground contours shown hereon are based on LiDAR aerial survey captured by others.

Dimensions are in metres unless otherwise noted.

Safe intersection Sight Distance (SISD) assessment conducted in accordance with the Taupo District Plan based on a design speed of 50km/h and driver eye height of 1.15m.

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Roading
Sight Distance Assessment

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	22/07/2026	SC
Drawn:	S. Chand	22/07/2026	SC
Checked:	R. Singh	22/07/2026	RKS
Approved:	J. Thom	22/07/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): As Shown

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Status: **RESOURCE CONSENT**

Sheet: A3

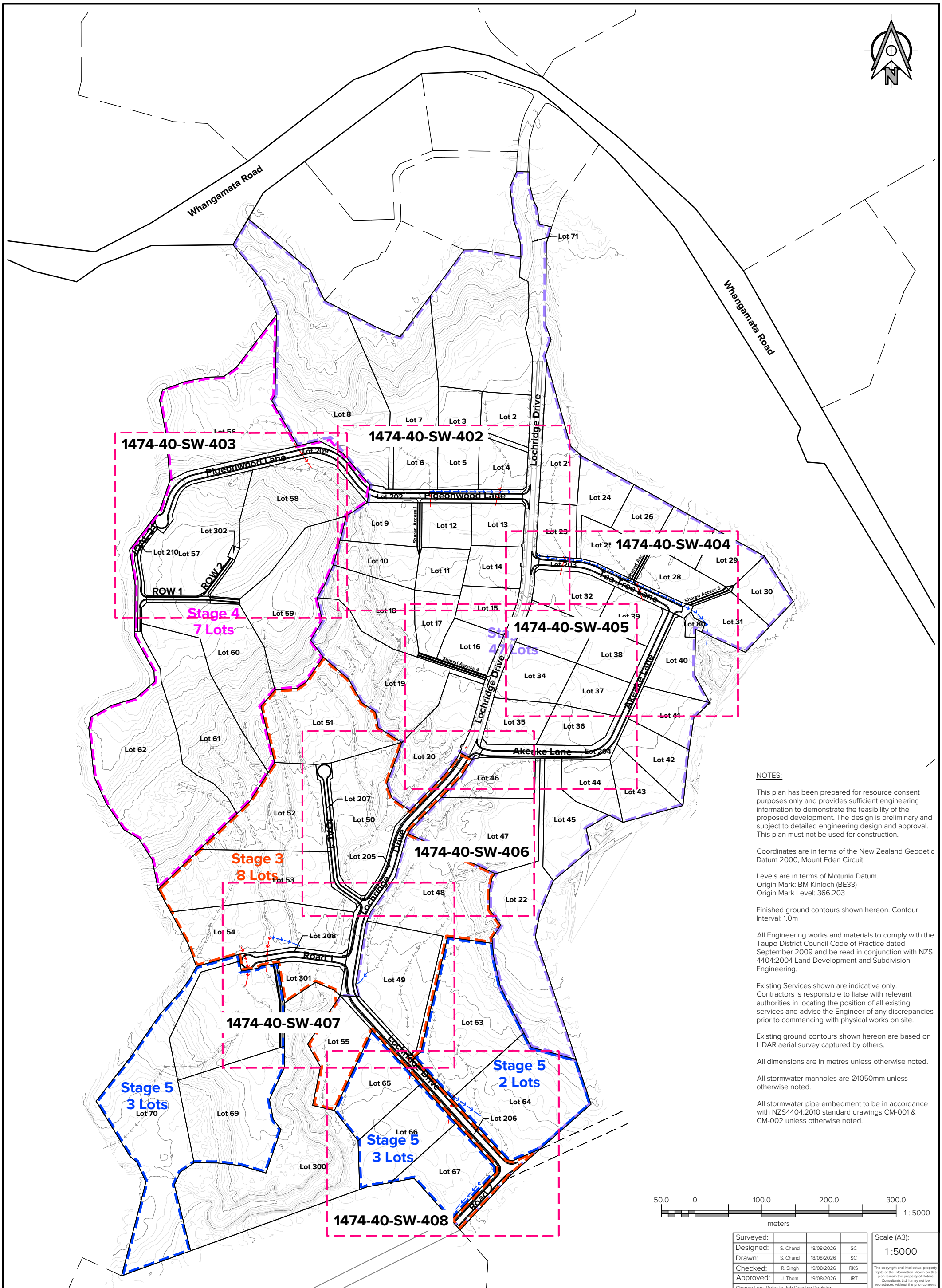
Drawing Plan: 1474-30-RD-333

Rev: A

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AUTO CAD

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NOTES:

This plan has been prepared for resource consent purposes only and provides sufficient engineering information to demonstrate the feasibility of the proposed development. The design is preliminary and subject to detailed engineering design and approval. This plan must not be used for construction.

Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

All Engineering works and materials to comply with the Taupo District Council Code of Practice dated September 2009 and be read in conjunction with NZS 4404:2004 Land Development and Subdivision Engineering.

Existing Services shown are indicative only. Contractors is responsible to liaise with relevant authorities in locating the position of all existing services and advise the Engineer of any discrepancies prior to commencing with physical works on site.

Existing ground contours shown hereon are based on LiDAR aerial survey captured by others.

All dimensions are in metres unless otherwise noted.

All stormwater manholes are Ø1050mm unless otherwise noted.

All stormwater pipe embedment to be in accordance with NZS4404:2010 standard drawings CM-001 & CM-002 unless otherwise noted.

50.0 0 100.0 200.0 300.0
meters
1 : 5000

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 :5000

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Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue - Sketch	SC	RKS	JRT

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AUTO CAD

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Client: Lochridge Estate Ltd

Project: Stages 2-5

Title: Stormwater General Arrangement Plan

Status: RESOURCE CONSENT

Sheet: A3

Drawing Plan: 1474-40-SW-401

Rev: A

Pre-Development Catchment Information

Color:	Catchment Label:	Catchment Area (m^2)	Catchment Area (Ha)
	CA 01	263,242	26.32
	CA 02	31,839	3.18
	CA 03	47,637	4.76
	CA 04	34,677	3.47
	CA 05	10,545	1.06
	CA 06	16,027	1.60
	CA 07	11,796	1.18
	CA 08	9,813	0.98
	CA 09	33,943	3.39
	CA 10	17,755	1.78
	CA 11	36,747	3.68
	CA 12	64,587	6.46
	CA 13	61,024	6.10
	CA 14	42,032	4.20
	CA 15	15,000	1.50
	CA 16	18,750	1.88
	CA 17	10,747	1.08

NOTES:

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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50.0 0 100.0 200.0 300.0
meters
1 : 5000

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 :5000

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Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue - Sketch	SC	RKS	JRT

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Client: Lochridge Estate Ltd

Project: Stages 2-5

Title: Pre-Development Catchment Plan

Status: RESOURCE CONSENT

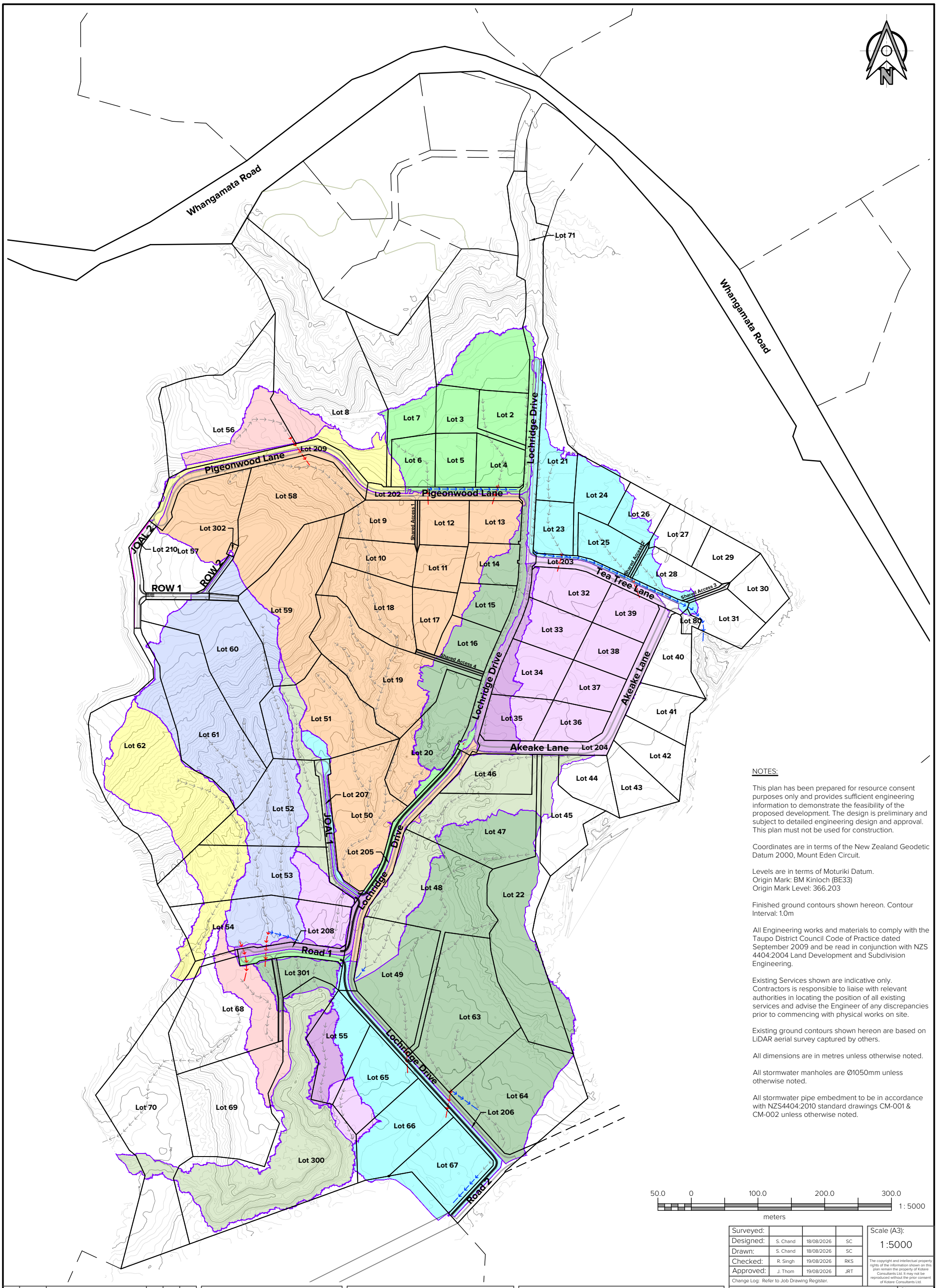
Sheet: A3

Drawing Plan: 1474-40-SW-402

Rev: A

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NOTES:

This plan has been prepared for resource consent purposes only and provides sufficient engineering information to demonstrate the feasibility of the proposed development. The design is preliminary and subject to detailed engineering design and approval. This plan must not be used for construction.

Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

All Engineering works and materials to comply with the Taupo District Council Code of Practice dated September 2009 and be read in conjunction with NZS 4404:2004 Land Development and Subdivision Engineering.

Existing Services shown are indicative only. Contractors is responsible to liaise with relevant authorities in locating the position of all existing services and advise the Engineer of any discrepancies prior to commencing with physical works on site.

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All dimensions are in metres unless otherwise noted.

All stormwater manholes are Ø1050mm unless otherwise noted.

All stormwater pipe embedment to be in accordance with NZS4404:2010 standard drawings CM-001 & CM-002 unless otherwise noted.

50.0 0 100.0 200.0 300.0
meters
1 : 5000

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 :5000

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Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue - Sketch	SC	RKS	JRT

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Client: Lochridge Estate Ltd

Project: Stages 2-5

Title: Post-Development Catchment Plan

Status: RESOURCE CONSENT

Sheet: A3

Drawing Plan: 1474-40-SW-403

Rev: A

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NOTES:

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

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LEGEND:

- Site Boundary
- New Stormwater Swale Drain
- New RCRRJ Culvert
- New Stormwater Scruffy Manhole
- New Stormwater Soakhole
- New Stormwater Checkdam
- Existing Overland Flow Path (OLFP)
- New Overland Flow Path
- Existing Overland Flow Path Removed

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Stormwater General Layout
Sheet 1 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

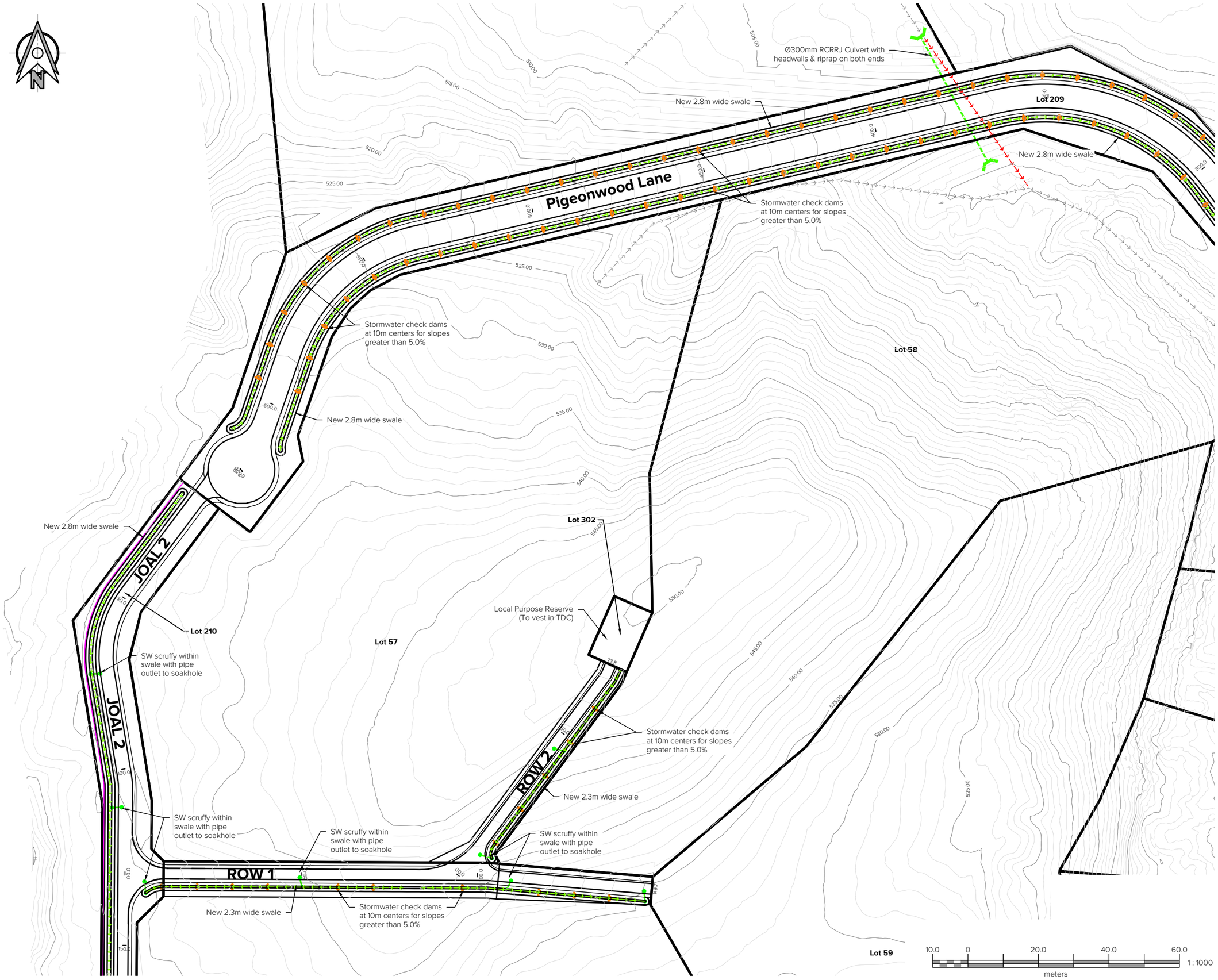
Scale (A3): 1 : 1000

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Status: RESOURCE CONSENT
Sheet: A3
Drawing Plan: 1474-40-SW-404
Rev: A

10.0 0 20.0 40.0 60.0
1 : 1000
meters

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NOTES:

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Origin Mark Level: 366.203

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All stormwater pipe embedment to be in accordance with NZS4404:2010 standard drawings CM-001 & CM-002 unless otherwise noted.

LEGEND:

- Site Boundary
- New Stormwater Swale Drain
- New RCRRJ Culvert
- New Stormwater Scruffy Manhole
- New Stormwater Soakhole
- New Stormwater Checkdam
- Existing Overland Flow Path (OLFP)
- New Overland Flow Path
- Existing Overland Flow Path Removed

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Stormwater General Layout
Sheet 2 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 : 1000

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Status: **RESOURCE CONSENT**
Sheet: A3
Drawing Plan: 1474-40-SW-405
Rev: A

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NOTES:

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

All Engineering works and materials to comply with the Taupo District Council Code of Practice dated September 2009 and be read in conjunction with NZS 4404:2004 Land Development and Subdivision Engineering.

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All stormwater manholes are Ø1050mm unless otherwise noted.

All stormwater pipe embedment to be in accordance with NZS4404:2010 standard drawings CM-001 & CM-002 unless otherwise noted.

LEGEND:

- Site Boundary
- New Stormwater Swale Drain
- New RCRRJ Culvert
- New Stormwater Scruffy Manhole
- New Stormwater Soakhole
- New Stormwater Checkdam
- Existing Overland Flow Path (OLFP)
- New Overland Flow Path
- Existing Overland Flow Path Removed

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Stormwater General Layout
Sheet 3 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT
Change Log: Refer to Job Drawing Register.			

Scale (A3):
1 : 1000

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Sheet:
A3

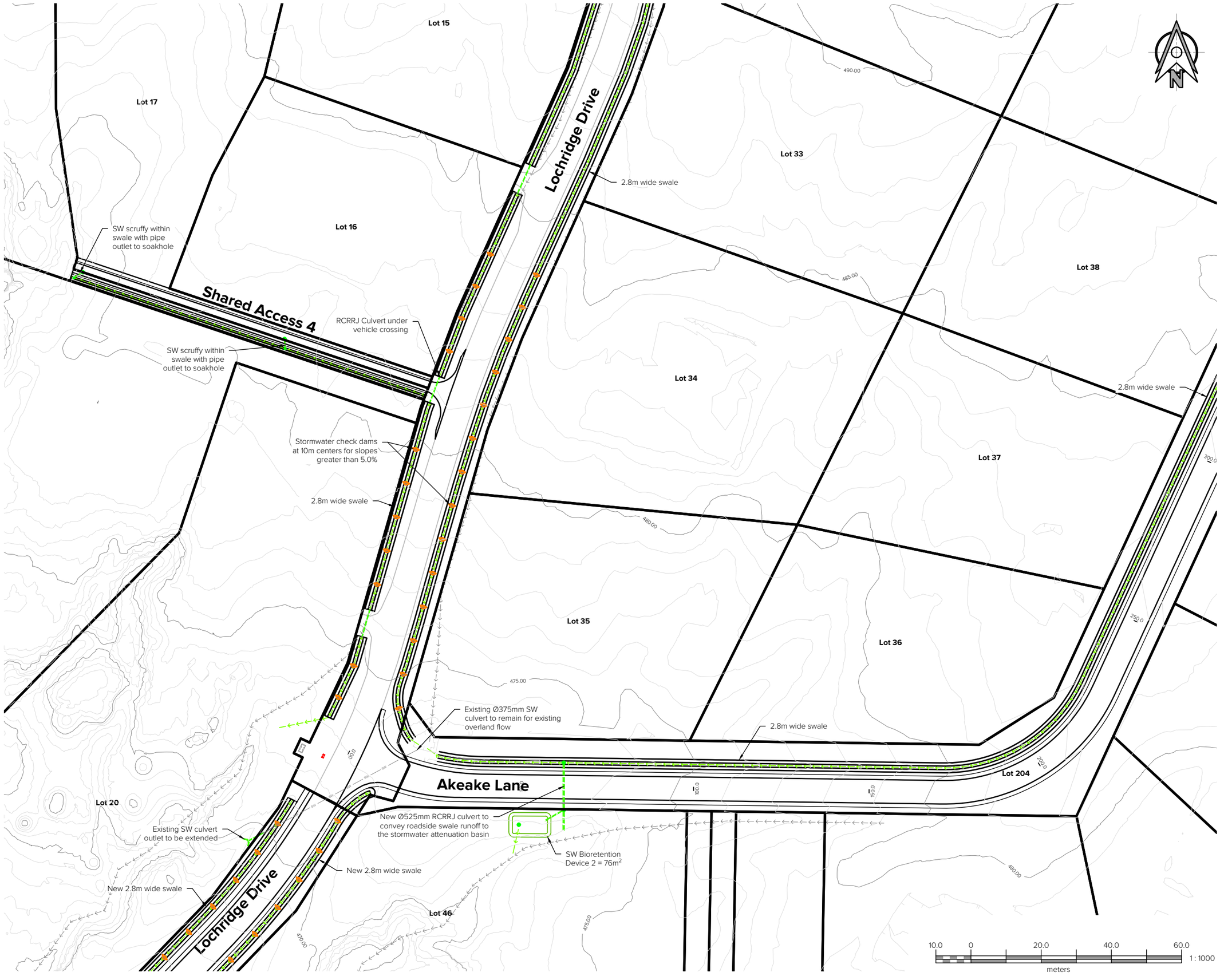
Drawing Plan:
1474-40-SW-406

Rev:
A

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NOTES:

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Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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LEGEND:

- Site Boundary
- New Stormwater Swale Drain
- New RCRRJ Culvert
- New Stormwater Scruffy Manhole
- New Stormwater Soakhole
- New Stormwater Checkdam
- Existing Overland Flow Path (OLFP)
- New Overland Flow Path
- Existing Overland Flow Path Removed

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Stormwater General Layout
Sheet 4 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 : 1000

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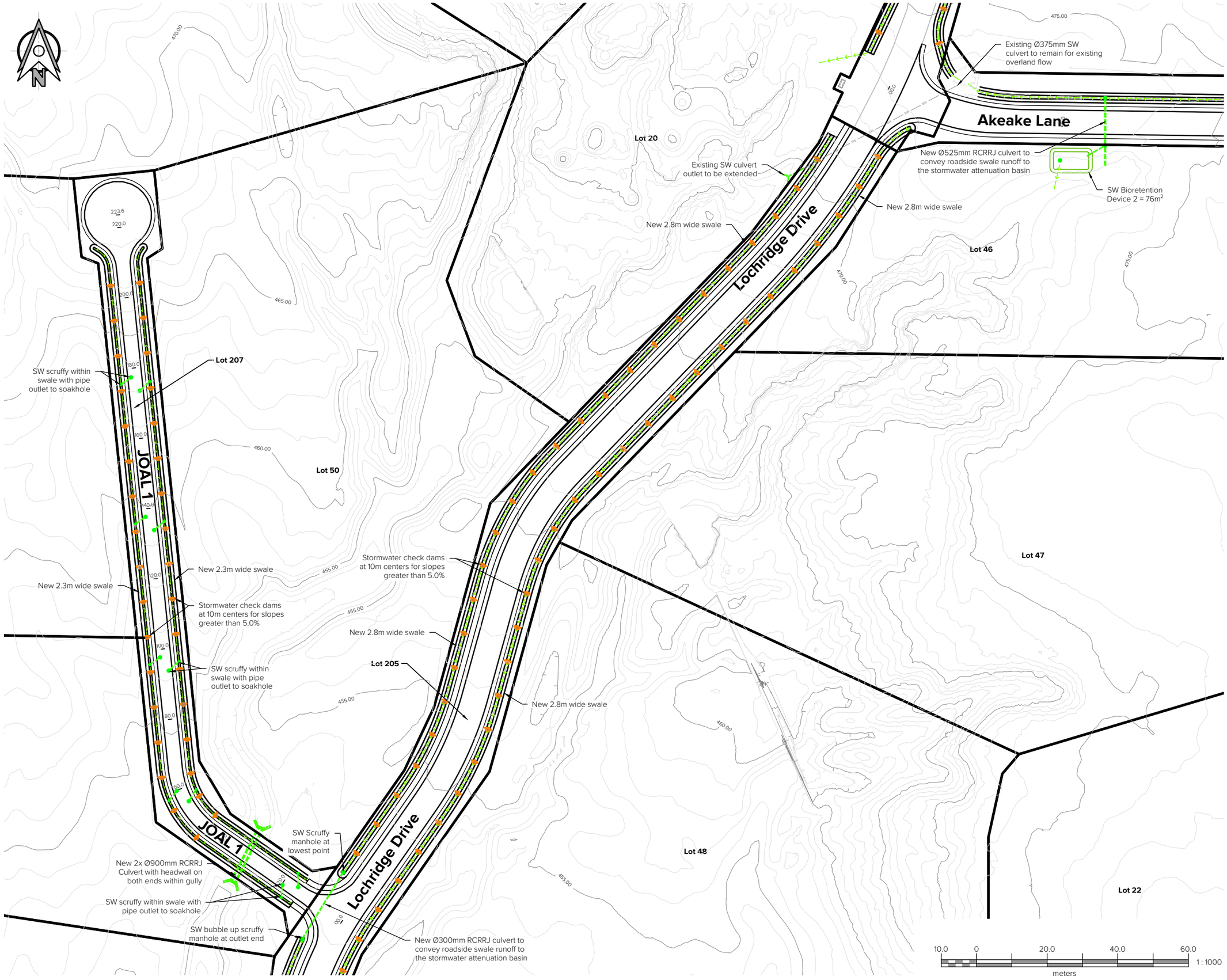
Status: **RESOURCE CONSENT**

Sheet: A3

Drawing Plan: 1474-40-SW-407

Rev: A

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NOTES:

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Origin Mark: BM Kinloch (BE33)
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LEGEND:

- Site Boundary
- New Stormwater Swale Drain
- New RCRRJ Culvert
- New Stormwater Scruffy Manhole
- New Stormwater Soakhole
- New Stormwater Checkdam
- Existing Overland Flow Path (OLFP)
- New Overland Flow Path
- Existing Overland Flow Path Removed

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Stormwater General Layout
Sheet 5 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3):
1 : 1000

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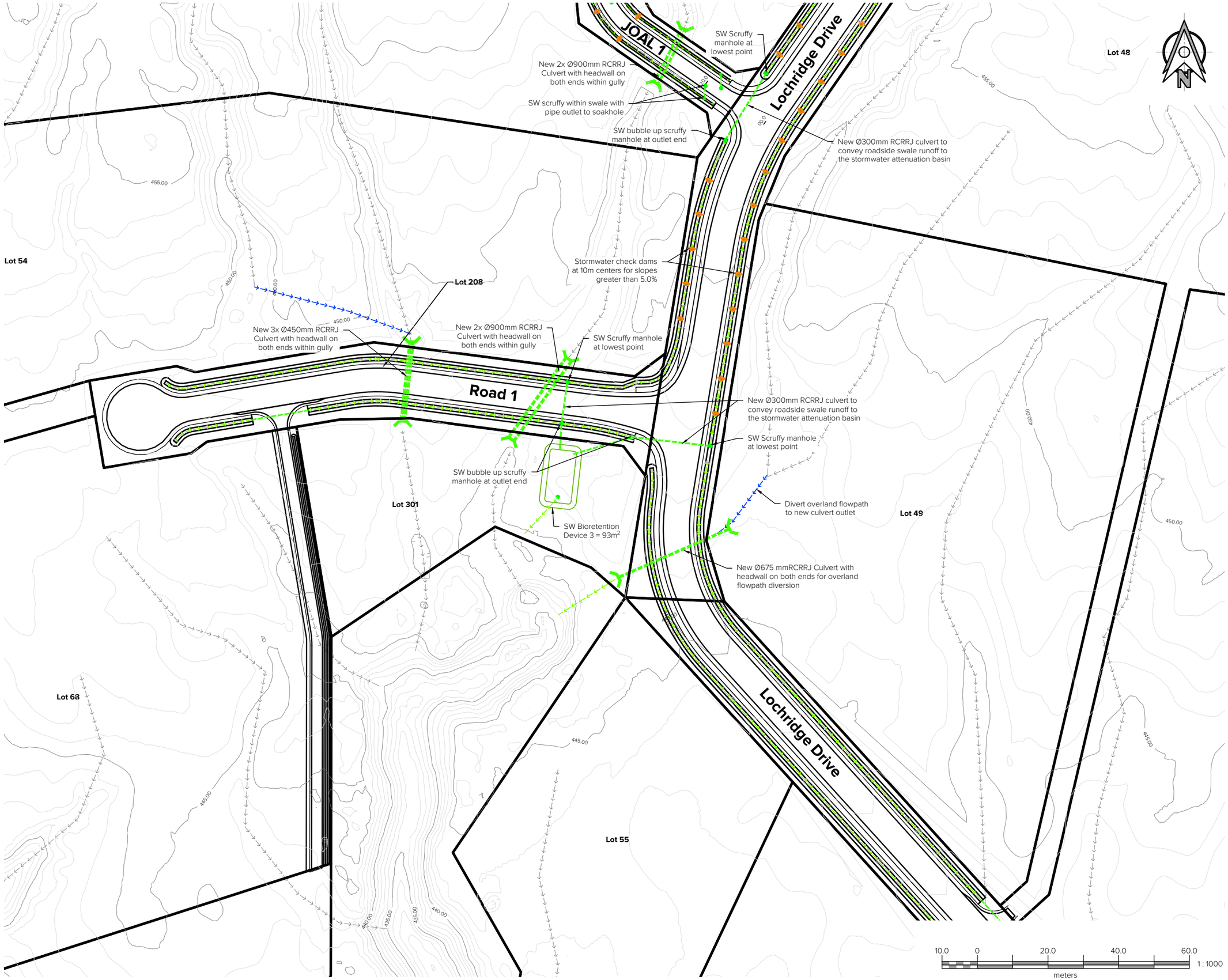
Status:
RESOURCE CONSENT

Sheet:
A3

Drawing Plan:
1474-40-SW-408

Rev:
A

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NOTES:

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Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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LEGEND:

- Site Boundary
- New Stormwater Swale Drain
- New RCRRJ Culvert
- New Stormwater Scruffy Manhole
- New Stormwater Soakhole
- New Stormwater Checkdam
- Existing Overland Flow Path (OLFP)
- New Overland Flow Path
- Existing Overland Flow Path Removed

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Stormwater General Layout
Sheet 6 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 : 1000

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Status: **RESOURCE CONSENT**

Sheet: A3

Drawing Plan: 1474-40-SW-409

Rev: A

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Lot 65

Lot 64

Lot 66

Lot 67

Lot 206

Lochridge Drive

Road 2

440.00

435.00

445.00

New 2.8m wide swale

New 2.8m wide swale

SW Scruffy manhole at lowest point

New Ø525mm RCRRJ Culvert with headwall on both ends within flowpath

SW bubble up scruffy manhole at outlet end

New Ø375mm RCRRJ culvert to convey roadside swale runoff to the stormwater attenuation basin

SW Bioretention Device 4 = 68m^2

New Ø300mm RCRRJ culvert to convey roadside swale runoff to the stormwater attenuation basin

New Ø750mm RCRRJ Culvert with headwall on both ends within flowpath

10.0 0 20.0 40.0 60.0

1 : 1000

meters

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www.kotareconsultants.nz

NOTES:

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

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LEGEND:

- Site Boundary
- New Stormwater Swale Drain
- New RCRRJ Culvert
- New Stormwater Scruffy Manhole
- New Stormwater Soakhole
- New Stormwater Checkdam
- Existing Overland Flow Path (OLFP)
- New Overland Flow Path
- Existing Overland Flow Path Removed

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Stormwater General Layout
Sheet 7 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 : 1000

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Status: **RESOURCE CONSENT**

Sheet: A3

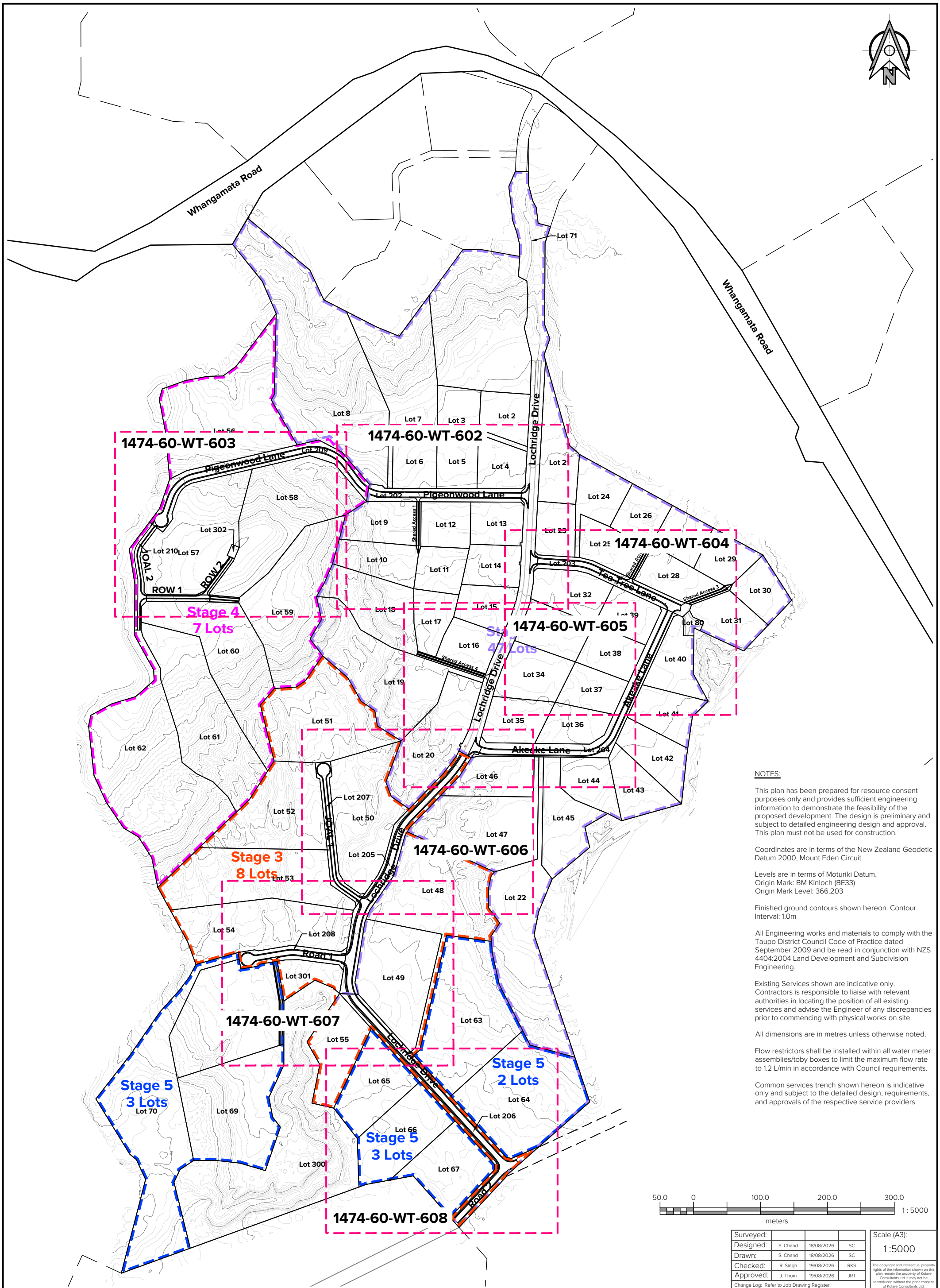
Drawing Plan: 1474-40-SW-410

Rev: A

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NOTES:

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

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All dimensions are in metres unless otherwise noted.

Flow restrictors shall be installed within all water meter assemblies/toby boxes to limit the maximum flow rate to 1.2 L/min in accordance with Council requirements.

Common services trench shown hereon is indicative only and subject to the detailed design, requirements, and approvals of the respective service providers.

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3): 1 :5000

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Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

KOTARE CONSULTANTS

AUTO CAD

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www.kotareconsultants.nz

Client: Lochridge Estate Ltd

Project: Stages 2-5

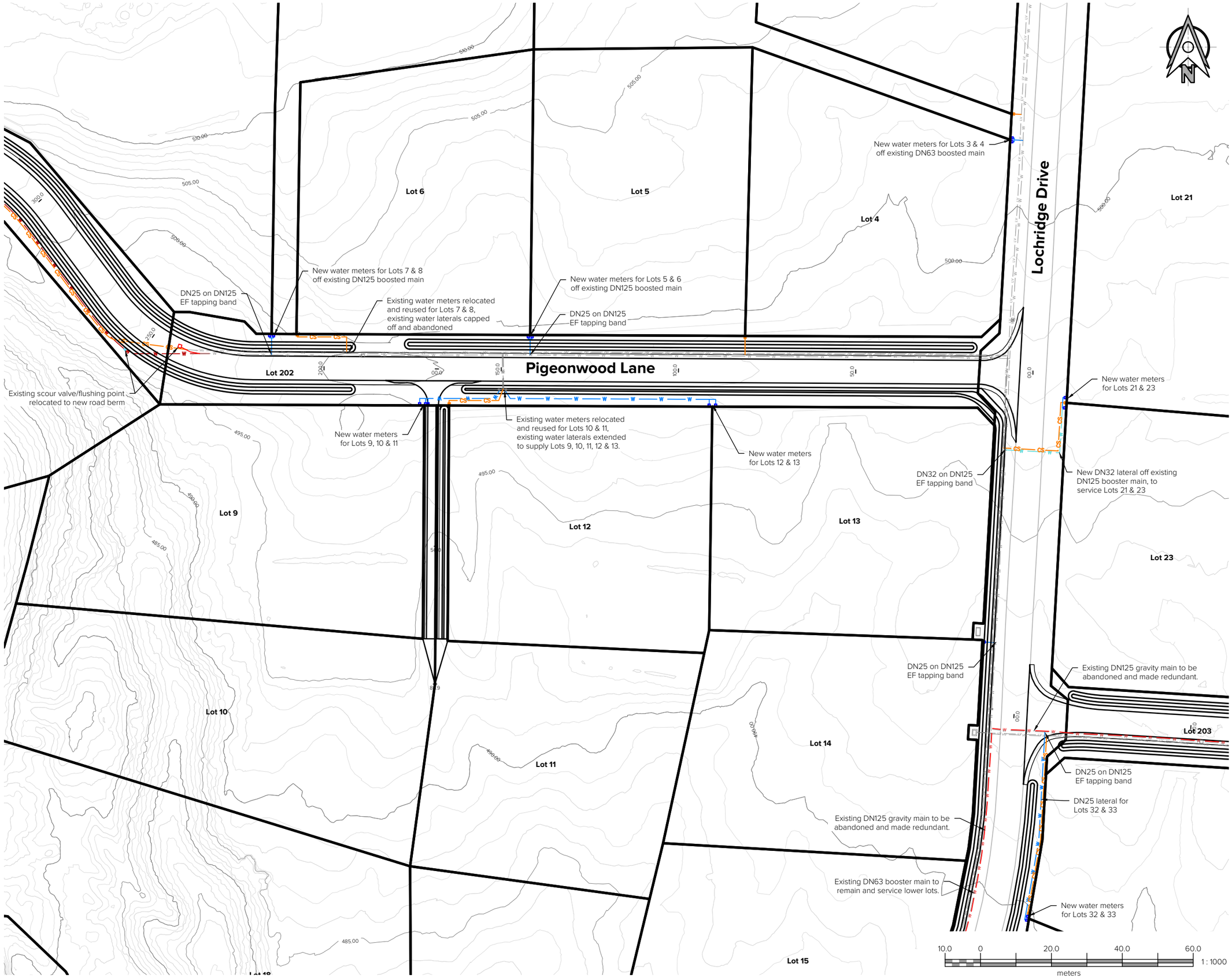
Title: Water Reticulation & Services General Arrangement Plan

Status: **RESOURCE CONSENT**

Sheet: A3

Drawing Plan: 1474-60-WT-601

Rev: A



Kotare CONSULTANTS
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NOTES:

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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All dimensions are in metres unless otherwise noted.

Flow restrictors shall be installed within all water meter assemblies/toby boxes to limit the maximum flow rate to 1.2 L/min in accordance with Council requirements.

Common services trench shown hereon is indicative only and subject to the detailed design, requirements, and approvals of the respective service providers.

LEGEND:

- Site Boundary
- Existing Booster Mains (Size Varies)
- Existing Gravity Mains (Redundant)
- Existing Valves (Type Varies)
- Existing Water Meter/Toby
- Existing High Voltage Line
- Existing Low Voltage Line
- New Water Pressure Line (DN125 PE)
- New Water Booster Line (DN63 PE)
- New Water Lateral (DN32 PE)
- New Water Lateral (DN25 PE)
- New Water Meter with Flow Restrictor
- New Sluice/Gate Valve
- Common Services Trench (Indicative)
- New Power Plinth/Pedestal

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	JRT	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Water Reticulation & Services
Sheet 1 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3):
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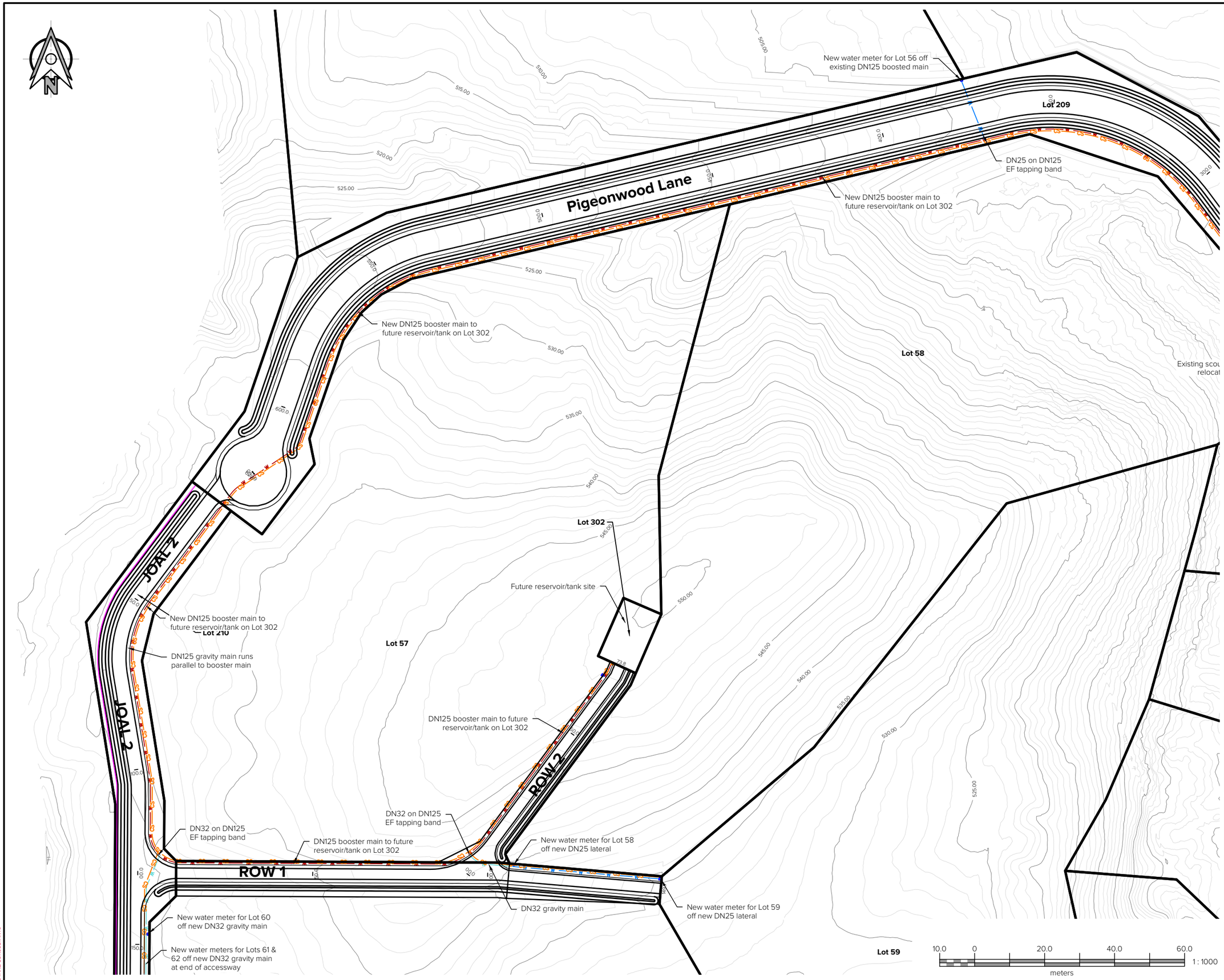
Drawing Plan:
1474-60-WT-602

Rev:
A

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AUTO CAD

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NOTES:

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Coordinates are in terms of the New Zealand Geodetic Datum 2000, Mount Eden Circuit.

Levels are in terms of Moturiki Datum.
Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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LEGEND:

- Site Boundary
- Existing Booster Mains (Size Varies)
- Existing Gravity Mains (Redundant)
- Existing Valves (Type Varies)
- Existing Water Meter/Toby
- Existing High Voltage Line
- Existing Low Voltage Line
- New Water Pressure Line (DN125 PE)
- New Water Booster Line (DN63 PE)
- New Water Lateral (DN32 PE)
- New Water Lateral (DN25 PE)
- New Water Meter with Flow Restrictor
- New Sluice/Gate Valve
- Common Services Trench (Indicative)
- New Power Plinth/Pedestal

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Water Reticulation & Services
Sheet 2 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

Change Log: Refer to Job Drawing Register.

Scale (A3):
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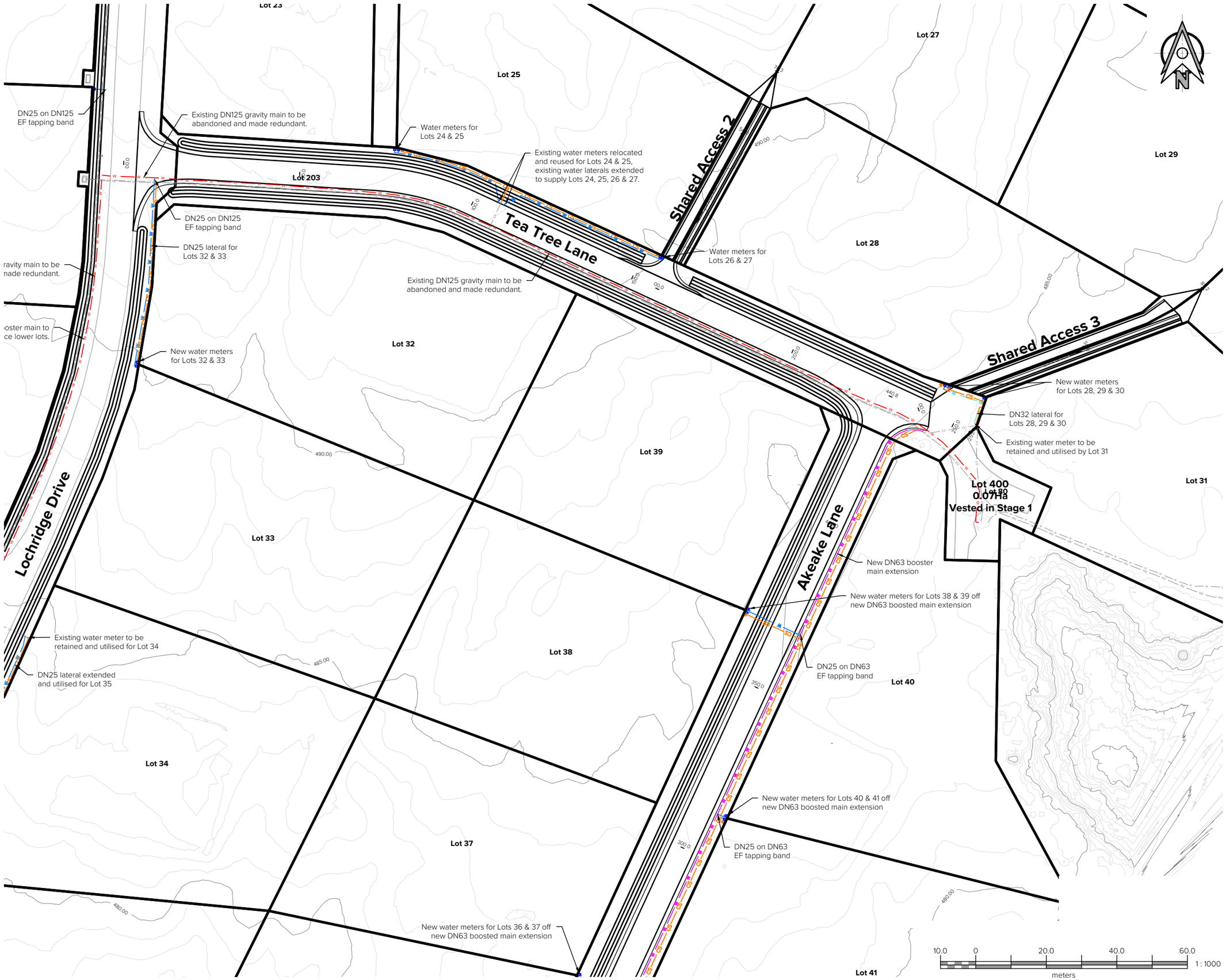
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Drawing Plan:
1474-60-WT-603

Rev:
A

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

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LEGEND:

- Site Boundary
- Existing Booster Mains (Size Varies)
- Existing Gravity Mains (Redundant)
- Existing Valves (Type Varies)
- Existing Water Meter/Toby
- Existing High Voltage Line
- Existing Low Voltage Line
- New Water Pressure Line (DN125 PE)
- New Water Booster Line (DN63 PE)
- New Water Lateral (DN32 PE)
- New Water Lateral (DN25 PE)
- New Water Meter with Flow Restrictor
- New Sluice/Gate Valve
- Common Services Trench (Indicative)
- New Power Plinth/Pedestal

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Water Reticulation & Services
Sheet 3 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

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Scale (A3):
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Status:
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Sheet:
A3

Drawing Plan:
1474-60-WT-604

Rev:
A

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AUTO CAD

Lot 15
Lot 17
Lot 16
Lot 33
Lot 38
Lot 34
Lot 37
Lot 35
Lot 36
Lot 204
Lot 20
Lot 46
Lochridge Drive
Shared Access 4
Akeake Lane
490.00
485.00
480.00
475.00
470.00
DN25 on DN63 EF tapping band
New water meters for Lots 32 & 33 off existing DN63 booster main
Existing water meter to be retained and utilised for Lot 34
DN25 lateral extended and utilised for Lot 35
New water meters for Lots 16 & 17 off existing DN63 booster main
DN25 on DN63 EF tapping band
New water meter for Lot 19 off existing DN63 booster main
Spare water meter from frontage of Lot 20 to be reused for Lot 35
Existing DN63 booster main to remain and service lower lots. Existing DN125 gravity main to be abandoned and made redundant.
Existing water meter to be retained and utilised by Lot 20. Spare water meter to be reused for Lot 35 and existing DN25 lateral capped off and abandoned
New water meters for Lots 36 & 37 off new DN63 boosted main extension
DN25 on DN63 EF tapping band
New water meters for Lots 42 & 43 off new DN63 boosted main extension
DN25 on DN63 EF tapping band
Existing DN40 booster main replaced with new DN63 booster main extension
Existing DN40 gate valve replaced with new DN63 gate valve
New DN40 booster main & DN125 gravity main extensions
Spare water meters from frontage of Lots 44 & 46 to be reused for Lots 22 & 47.
New DN63 booster main extension
Existing water meter to be retained and utilised by Lot 46. Spare water meter to be reused for Lot 47 and existing DN25 lateral capped off and abandoned
Existing DN40 booster main replaced with new DN63 booster main extension
Existing water meter to be retained and utilised by Lot 44. Spare water meter to be reused for Lot 22 and existing DN25 lateral capped off and abandoned
10.0 0 20.0 40.0 60.0
meters
1 : 1000

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Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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Common services trench shown hereon is indicative only and subject to the detailed design, requirements, and approvals of the respective service providers.

LEGEND:

- Site Boundary
- Existing Booster Mains (Size Varies)
- Existing Gravity Mains (Redundant)
- Existing Valves (Type Varies)
- Existing Water Meter/Toby
- Existing High Voltage Line
- Existing Low Voltage Line
- New Water Pressure Line (DN125 PE)
- New Water Booster Line (DN63 PE)
- New Water Lateral (DN32 PE)
- New Water Lateral (DN25 PE)
- New Water Meter with Flow Restrictor
- New Sluice/Gate Valve
- Common Services Trench (Indicative)
- New Power Plinth/Pedestal

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Water Reticulation & Services
Sheet 4 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

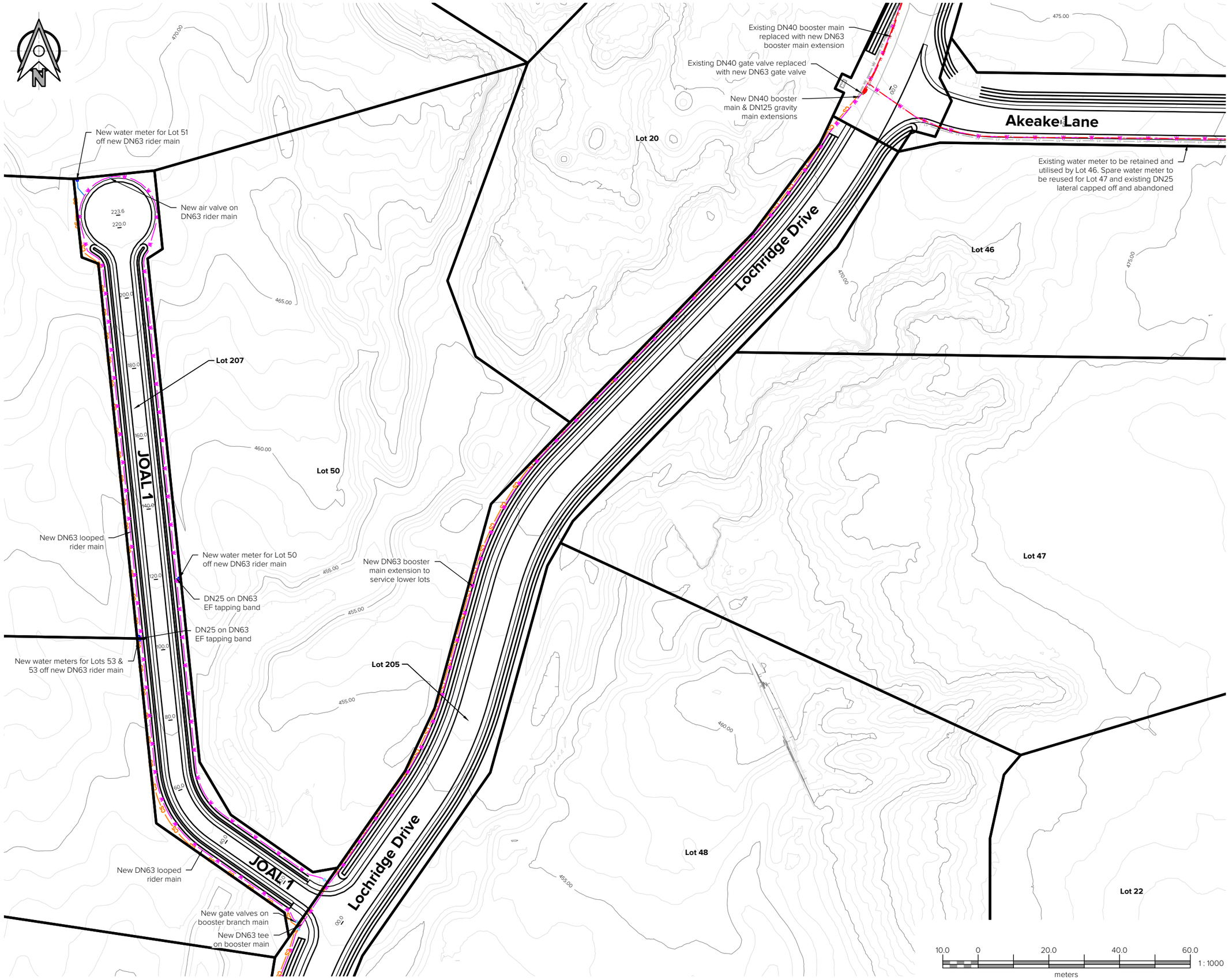
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Scale (A3): 1 : 1000

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Drawing Plan: 1474-60-WT-605
Rev: A

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Origin Mark: BM Kinloch (BE33)
Origin Mark Level: 366.203

Finished ground contours shown hereon. Contour Interval: 1.0m

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Common services trench shown hereon is indicative only and subject to the detailed design, requirements, and approvals of the respective service providers.

LEGEND:

- Site Boundary
- Existing Booster Mains (Size Varies)
- Existing Gravity Mains (Redundant)
- Existing Valves (Type Varies)
- Existing Water Meter/Toby
- Existing High Voltage Line
- Existing Low Voltage Line
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- New Water Booster Line (DN63 PE)
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- New Water Lateral (DN25 PE)
- New Water Meter with Flow Restrictor
- New Sluice/Gate Valve
- Common Services Trench (Indicative)
- New Power Plinth/Pedestal

Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Water Reticulation & Services
Sheet 5 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT
Change Log: Refer to Job Drawing Register.			

Scale (A3):
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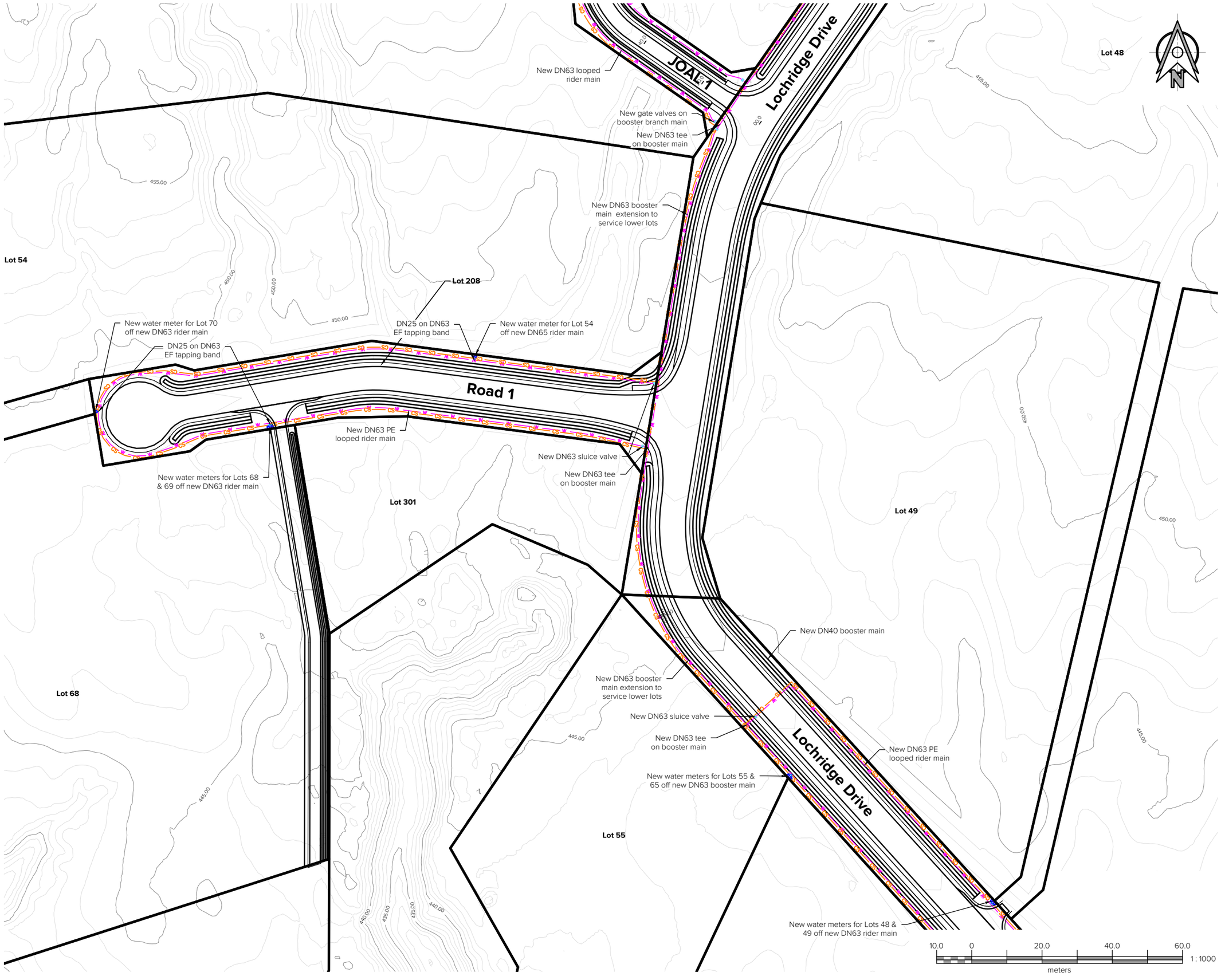
Status:
RESOURCE CONSENT

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Drawing Plan:
1474-60-WT-606

Rev:
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Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Water Reticulation & Services
Sheet 6 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

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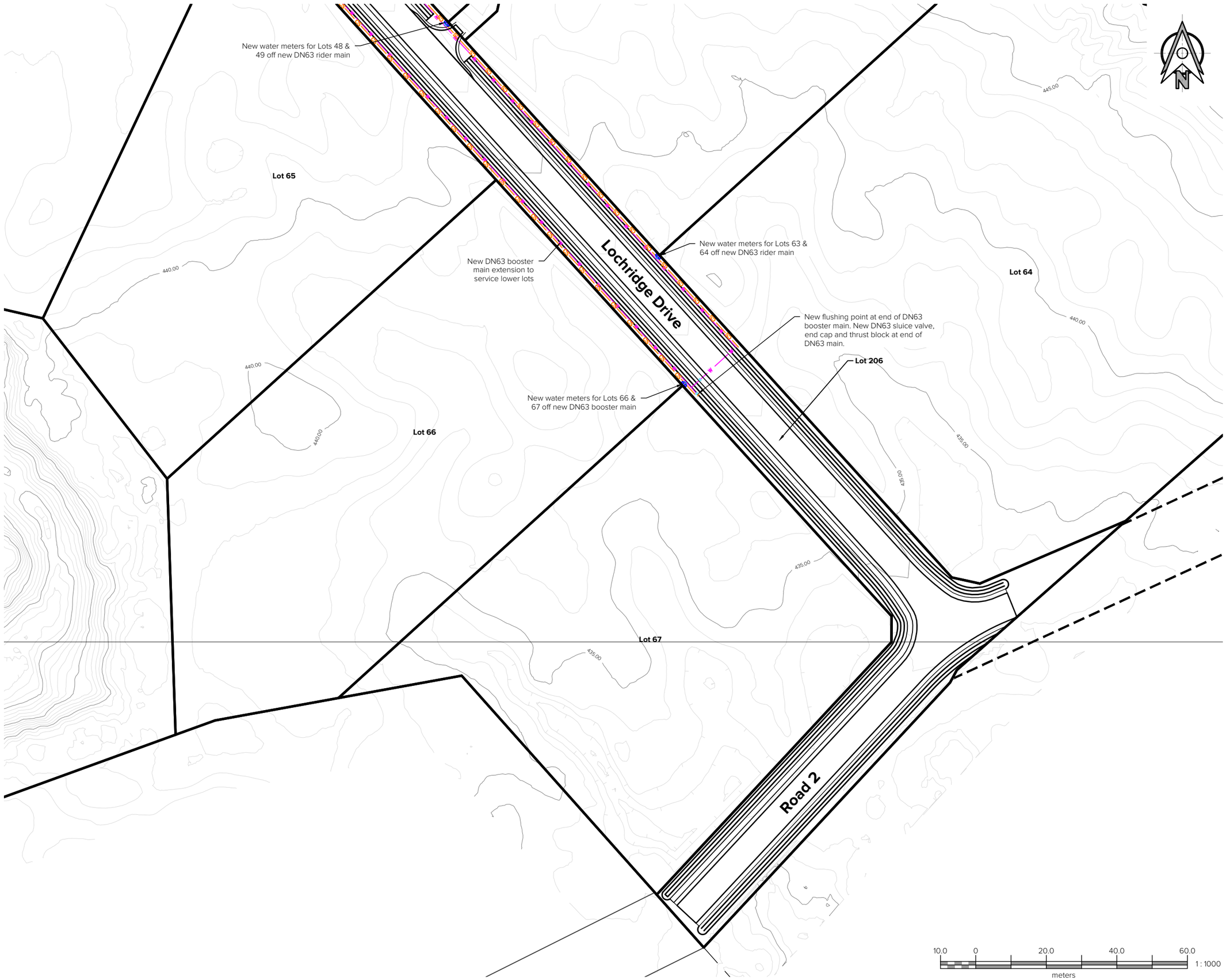
Drawing Plan: 1474-60-WT-607

Rev: A

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Rev	Date	Amendment:	By	Chk	App
A	11/09/26	First Issue	SC	RKS	JRT

Client:
Lochridge Estate Limited
Lochridge Drive, Kinloch
Taupo

Title:
Water Reticulation & Services
Sheet 7 of 7

Project:
Stages 2-5

Surveyed:			
Designed:	S. Chand	18/08/2026	SC
Drawn:	S. Chand	18/08/2026	SC
Checked:	R. Singh	19/08/2026	RKS
Approved:	J. Thom	19/08/2026	JRT

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Drawing Plan: 1474-60-WT-608

Rev: A