

0 40 80 120 160 200 m



Legend

Stream cross sections

- Notes:
1. Stream and drain alignments are based on RMA Ecology (2025) information; final layouts are subject to adaptive-management review and certification prior to implementation.
 2. Culverts are shown diagrammatically only. Detailed design will be undertaken at the engineering design stage in accordance with the New Zealand National Fish Passage Guidelines (NIWA, 2018) and to achieve the intent of NES-Freshwater Clause 70.
 3. Temporary diversions are to maintain flow continuity and isolate work areas during construction.
 4. Stream works shall follow the intent of the Ecological Restoration and Management Plans and be supervised by suitably qualified ecologists and engineers. Works shall incorporate armouring and scour protection where required, utilise vegetation to provide long-term bank stability, and maintain flood conveyance and channel

Stormwater Drainage Layout and Culvert

Sheet 1 of 2

Waikanae North Developments Ltd

Waikanae North

Peka Peka, Kapiti Coast

© Landlink Limited 2025



1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz

STAGE	ALL
REVISION	C
REVISION DETAILS	Issued For Consent

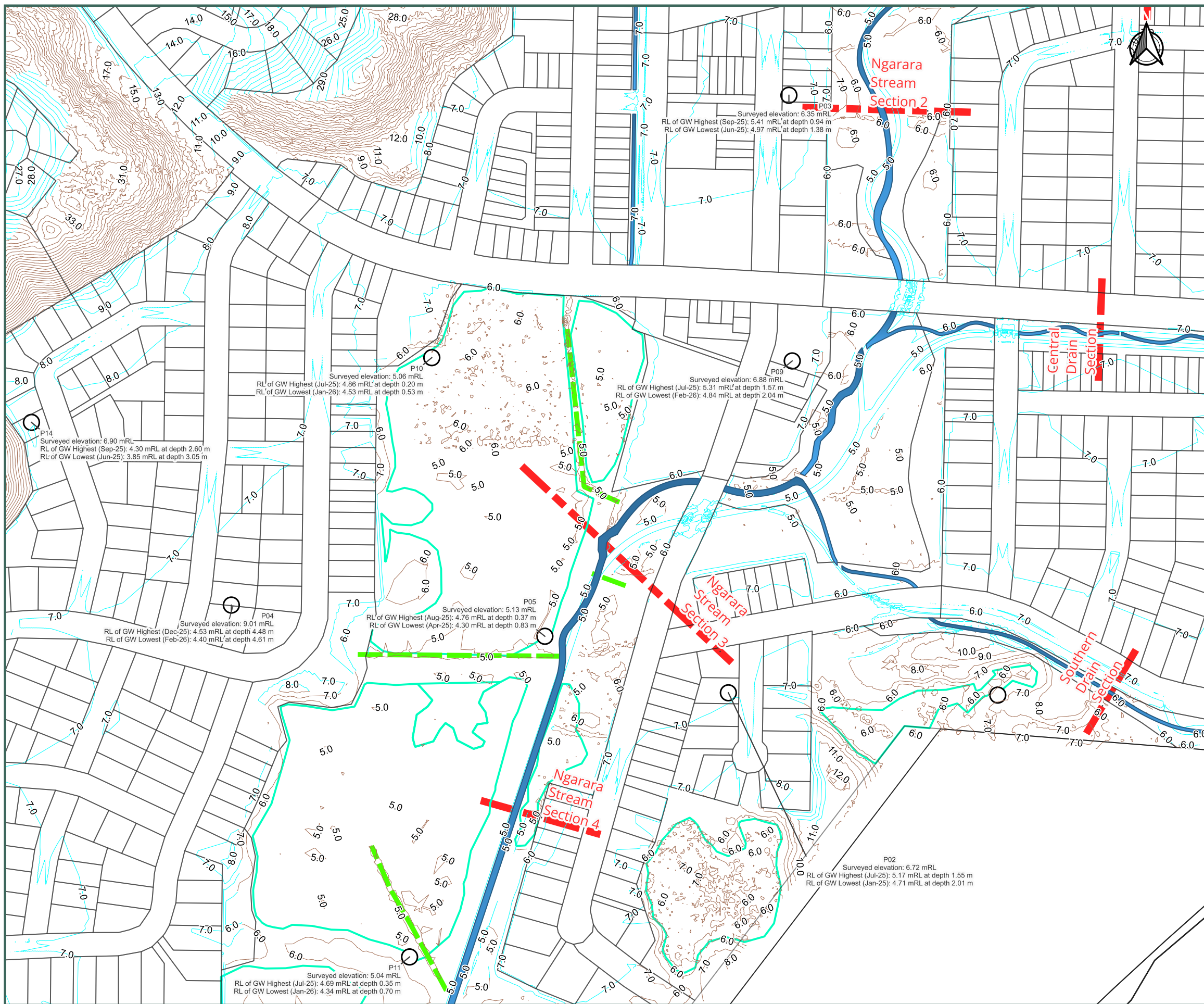
DESIGNED BY	JJH
DRAWN BY	JJH
APPROVED BY	PT

DATE 2026-03-13

SCALE Refer Scale Bar

2911-ALL-SW-430

This drawing contains data from other sources and has been prepared for a specific site and event. Landlink Limited does not accept any liability for its accuracy, content or unauthorised use.



0 40 80 120 160 200 m

Legend

- Ex drains retained
- Stream cross sections

Notes:

1. Stream and drain alignments are based on RMA Ecology (2025) information; final layouts are subject to adaptive-management review and certification prior to implementation.
2. Culverts are shown diagrammatically only. Detailed design will be undertaken at the engineering design stage in accordance with the New Zealand National Fish Passage Guidelines (NIWA, 2018) and to achieve the intent of NES-Freshwater Clause 70.
3. Temporary diversions are to maintain flow continuity and isolate work areas during construction.
4. Stream works shall follow the intent of the Ecological Restoration and Management Plans and be supervised by suitably qualified ecologists and engineers. Works shall incorporate armouring and scour protection where required, utilise vegetation to provide long-term bank stability, and maintain flood conveyance and channel

Stormwater Drainage Layout and Culvert

Sheet 2 of 2

Waikanae North Developments Ltd

Waikanae North

Peka Peka, Kapiti Coast

© Landlink Limited 2025



1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz

STAGE	ALL
REVISION	C
REVISION DETAILS	Issued For Consent

DESIGNED BY	JJH
DRAWN BY	JJH
APPROVED BY	PT

DATE 2026-03-13

SCALE Refer Scale Bar

2911-ALL-SW-431

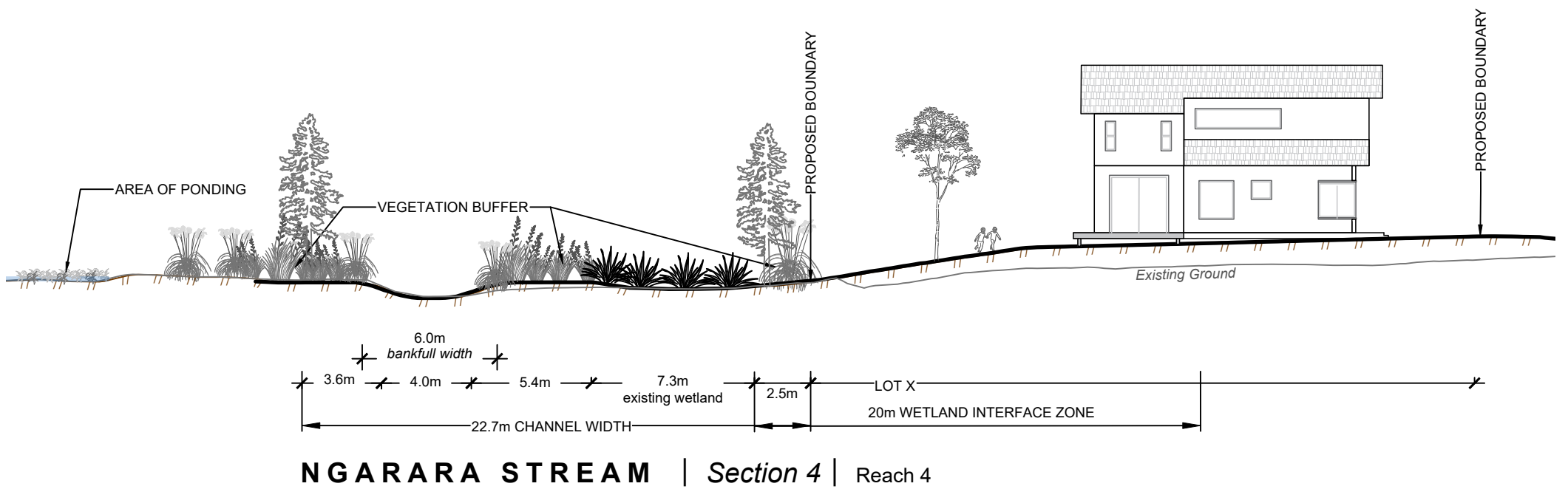
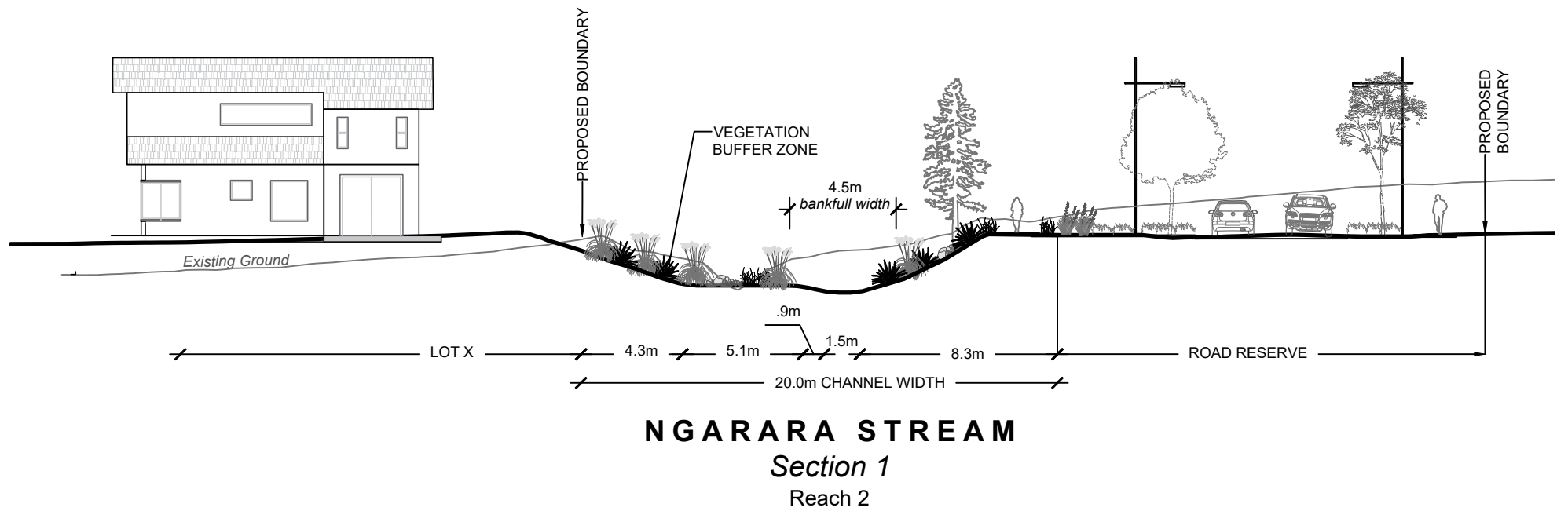
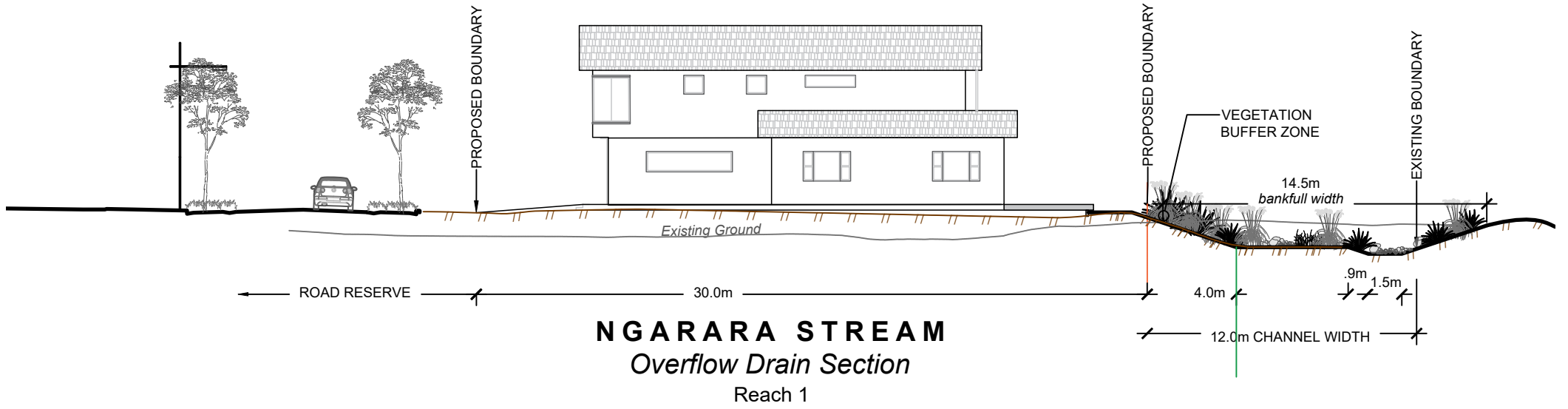
This drawing contains data from other sources and has been prepared for a specific site and event. Landlink Limited does not accept any liability for its accuracy, content or unauthorised use.

NOTES

1. Areas and dimensions are subject to cadastral survey.
2. Stream is a Confluence of the Te Manga o Waimeha (Waimeha Stream) under Schedule F1 - Locally known as Ngarara Stream
3. GWRC map: Region basemap P - Regional topographic waterways: Drain
4. Channel to maintain existing flood conveyance and hydraulic connectivity through the channel corridor.
5. Provide channel armouring and scour protection where required, including at bends, grade transitions, and culvert inlets/outlets, in accordance with the drawings and specifications.
6. Riparian vegetation to be established along channel margins and banks to provide long-term bank stability and erosion control.
7. Planting to consist of suitable riparian species capable of establishing durable root structure for bank reinforcement.

KEY

EXISTING SURFACE 
 DESIGN SURFACE 



© Landlink Limited 2026



1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz

This drawing contains data from other sources and has been prepared for a specific site and event. Landlink Limited does not accept any liability for its accuracy, content or unauthorised use.

Stream Realignment Cross Section

Sheet 1 of 3

Waikanae North Developments Ltd

171 Peka Peka Rd
 Peka Peka

JOB **2911**

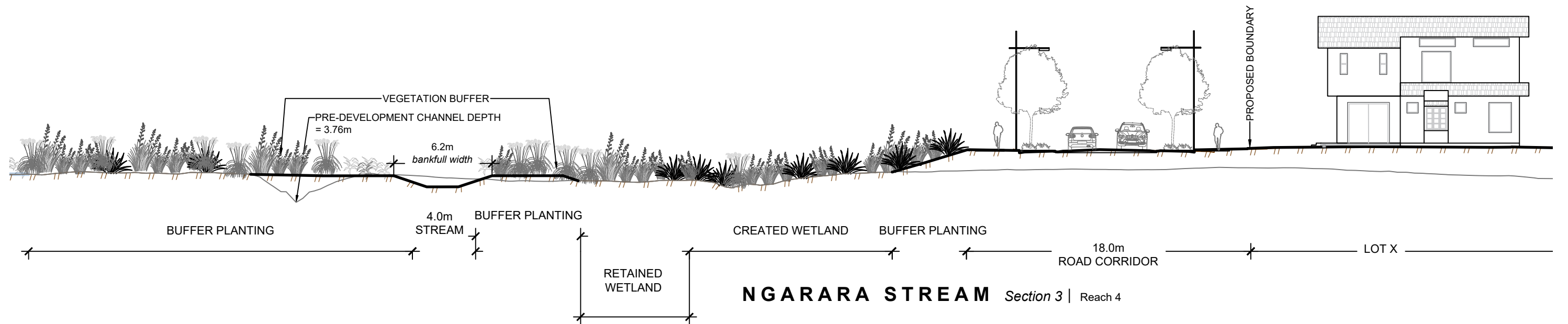
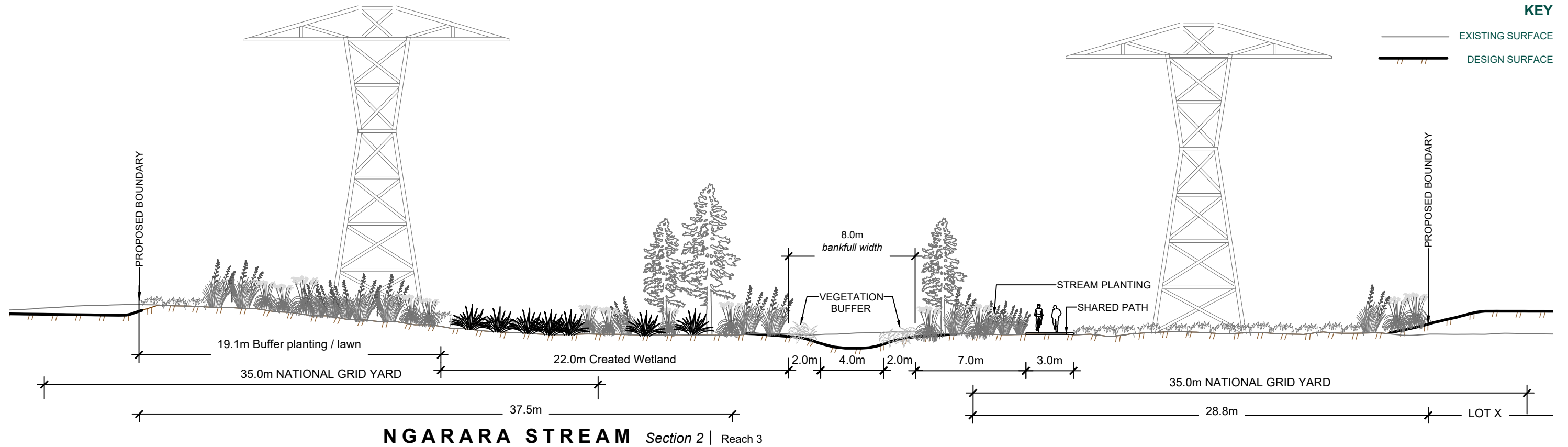
SCALE 1:250

REVISION	C	Issued for Consent - 13/03/2026		
-	JH/JAH	JH	PT	-
SURVEYED	DESIGNED	DRAWN	CHECKED	CHECKED
DATE	13/03/2026			

2911-ALL-SW-432

KEY

- EXISTING SURFACE
- DESIGN SURFACE



TITLE	Stream Realignment Cross Section
	Sheet 2 of 3
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Rd Peka Peka

DESIGNED BY	JH/JAH
DRAWN BY	JH
APPROVED BY	PT
JOB	2911
STAGE	SW
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

- NOTES**
- Stream is a Confluence of the Te Manga o Waimeha (Waimeha Stream) under Schedule F1 - Locally known as Ngarara Stream GWRC map: Region basemap P - Regional topographic waterways: Drain
 - Channel to maintain existing flood conveyance and hydraulic connectivity through the channel corridor.
 - Provide channel armouring and scour protection where required, including at bends, grade transitions, and culvert inlets/outlets, in accordance with the drawings and specifications.
 - Riparian vegetation to be established along channel margins and banks to provide long-term bank stability and erosion control.
 - Planting to consist of suitable riparian species capable of establishing durable root structure for bank reinforcement.



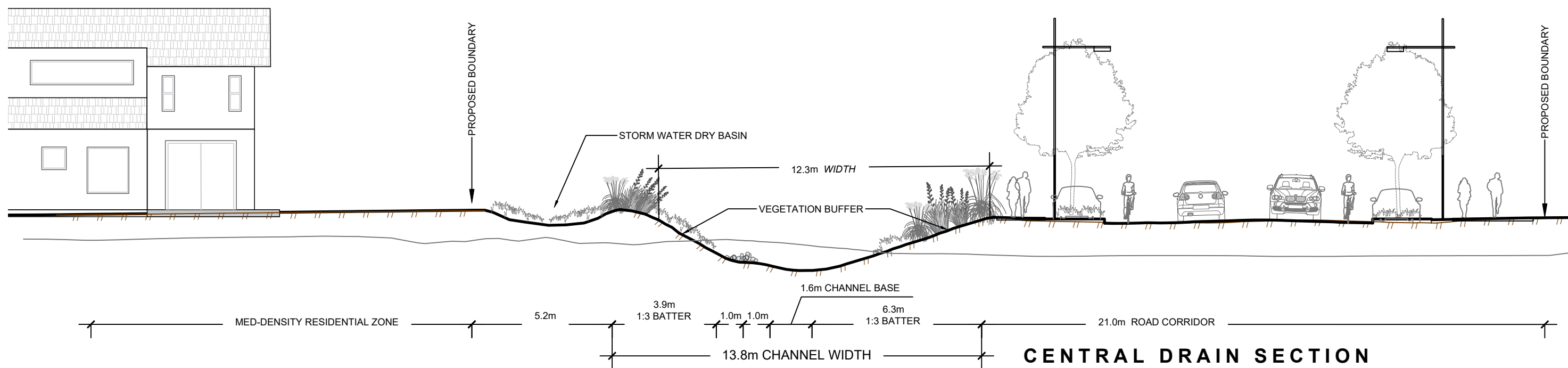
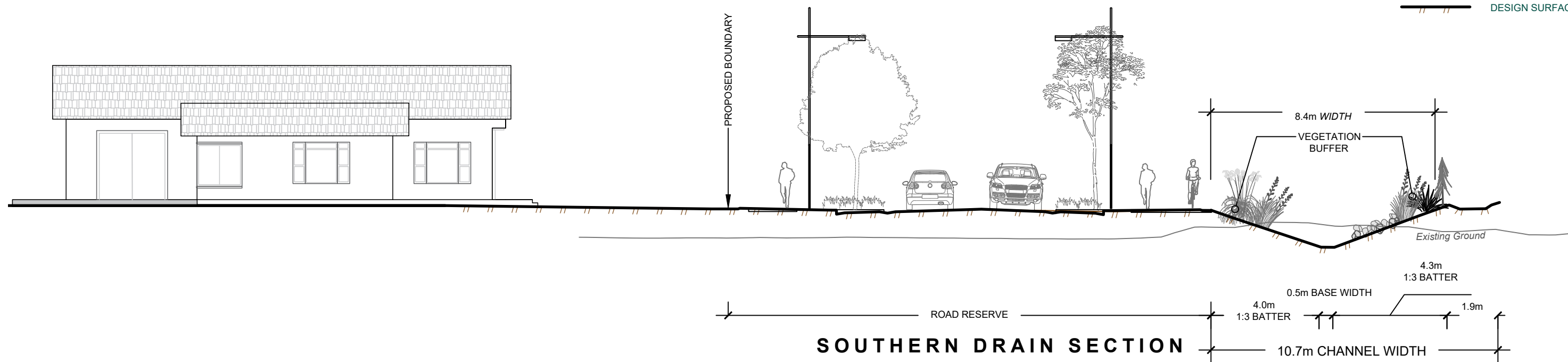
1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz
DATE 13/03/2026

SCALE 1:250

2911-ALL-SW-433

KEY

— EXISTING SURFACE
 - - - DESIGN SURFACE



TITLE **Stream Realignment Cross Section**
 Sheet 3 of 3

CLIENT **Waikanae North Developments Ltd**

PROJECT **171 Peka Peka rd**
 Peka Peka

DESIGNED BY JH/JAH

DRAWN BY JH

APPROVED BY PT

JOB 2911

STAGE SW

REVISION C

REVISION DETAILS Issued for Consent - 13/03/2026

NOTES

- Stream is a Confluence of the Te Manga o Waimeha (Waimeha Stream) under Schedule F1 - Locally known as Ngarara Stream GWRC map: Region basemap P - Regional topographic waterways: Drain
- Channel to maintain existing flood conveyance and hydraulic connectivity through the channel corridor.
- Provide channel armoring and scour protection where required, including at bends, grade transitions, and culvert inlets/outlets, in accordance with the drawings and specifications.
- Riparian vegetation to be established along channel margins and banks to provide long-term bank stability and erosion control.
- Planting to consist of suitable riparian species capable of establishing durable root structure for bank reinforcement.



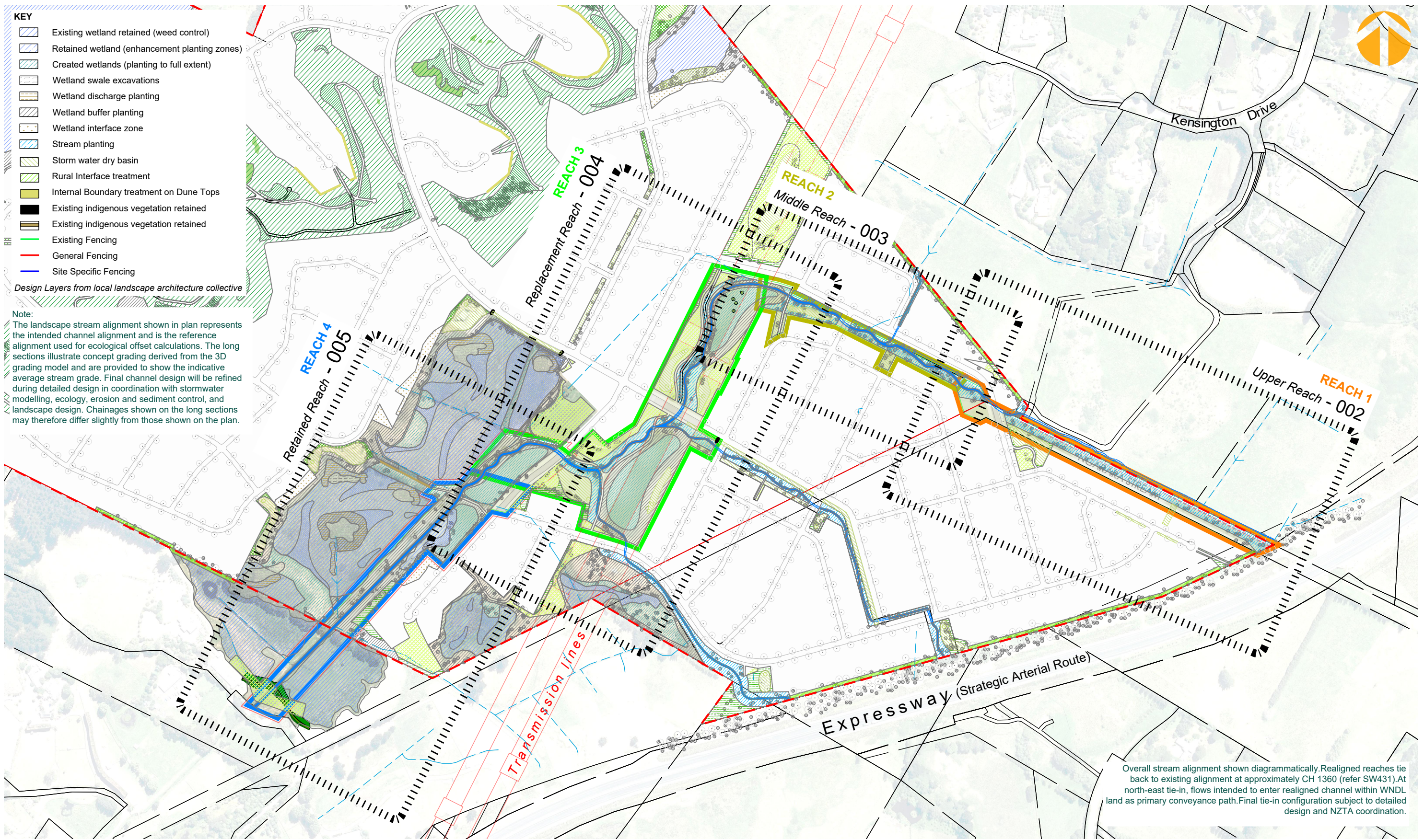
1 Ngaio Road, Waikanae 5036 + contactus@Landlink.co.nz
 DATE

13/03/2026

SCALE

1:150

SHEET **2911-ALL-SW-434**



TITLE	Conceptual Stream Realignment Overall Alignment Plan
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Rd Peka Peka

DESIGNED BY	-
DRAWN BY	JH
APPROVED BY	JJH
JOB	2911
STAGE	L2
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

- NOTES**
- This drawing illustrates conceptual stream alignment intent only.
 - Average longitudinal gradient shown is derived from Landlink long section drawings.
 - Instream variability (including pool-run-riffle sequencing) is diagrammatic only.
 - Detailed bed levels, structures and ecological measures are subject to detailed design and implementation in accordance with the Ecological Restoration Management Plan.
 - Refer to the Ecological Restoration Management Plan for indicative instream typology and planting guidance.

1 Ngaio Road, Waikanae 5036 + contactus@Landlink.co.nz

DATE 13/03/2026

SCALE 1:5000

SHEET 2911-ALL-SW-440

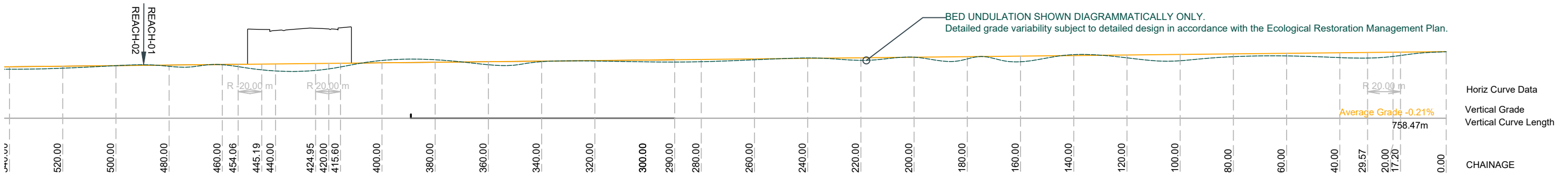
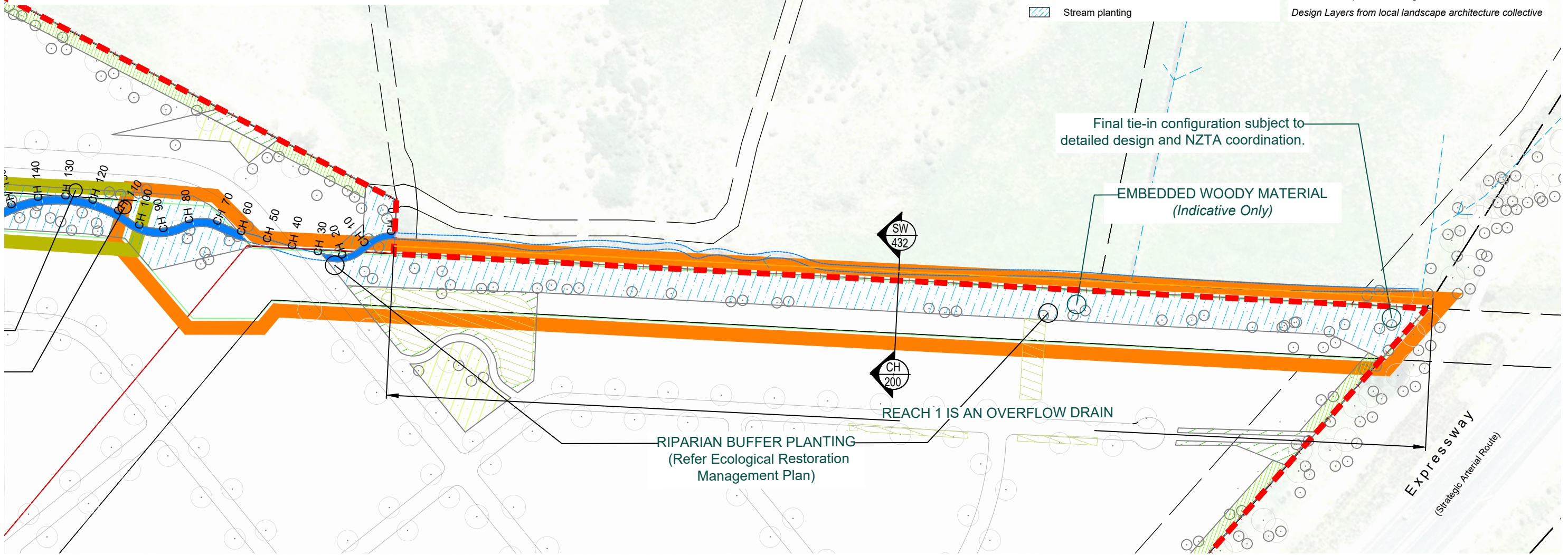
PLAN NOTE:
 The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. The long sections illustrate concept grading derived from the 3D grading model and are provided to show the indicative average stream grade. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages shown on the long sections may therefore differ slightly from those shown on the plan.

LONG SECTION NOTE:
 This long section illustrates concept grading derived from the 3D grading model and is provided to indicate the average stream grade. The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages may differ slightly from those shown on the plan.

KEY

	Existing wetland retained (weed control)		Storm water dry basin
	Retained wetland (enhancement planting zones)		Rural Interface treatment
	Created wetlands (planting to full extent)		Internal Boundary treatment on Dune Tops
	Wetland swale excavations		Existing indigenous vegetation retained
	Wetland discharge planting		Existing indigenous vegetation retained
	Wetland buffer planting		Existing Fencing
	Wetland interface zone		General Fencing
	Stream planting		Site Specific Fencing

Design Layers from local landscape architecture collective



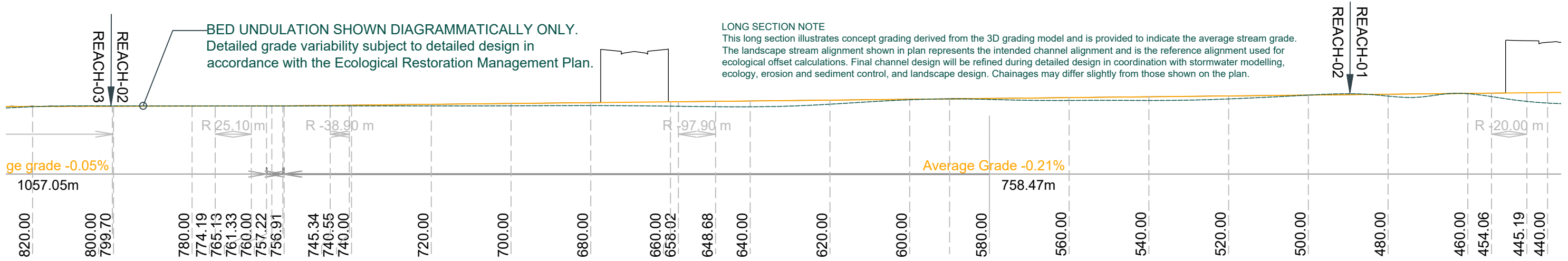
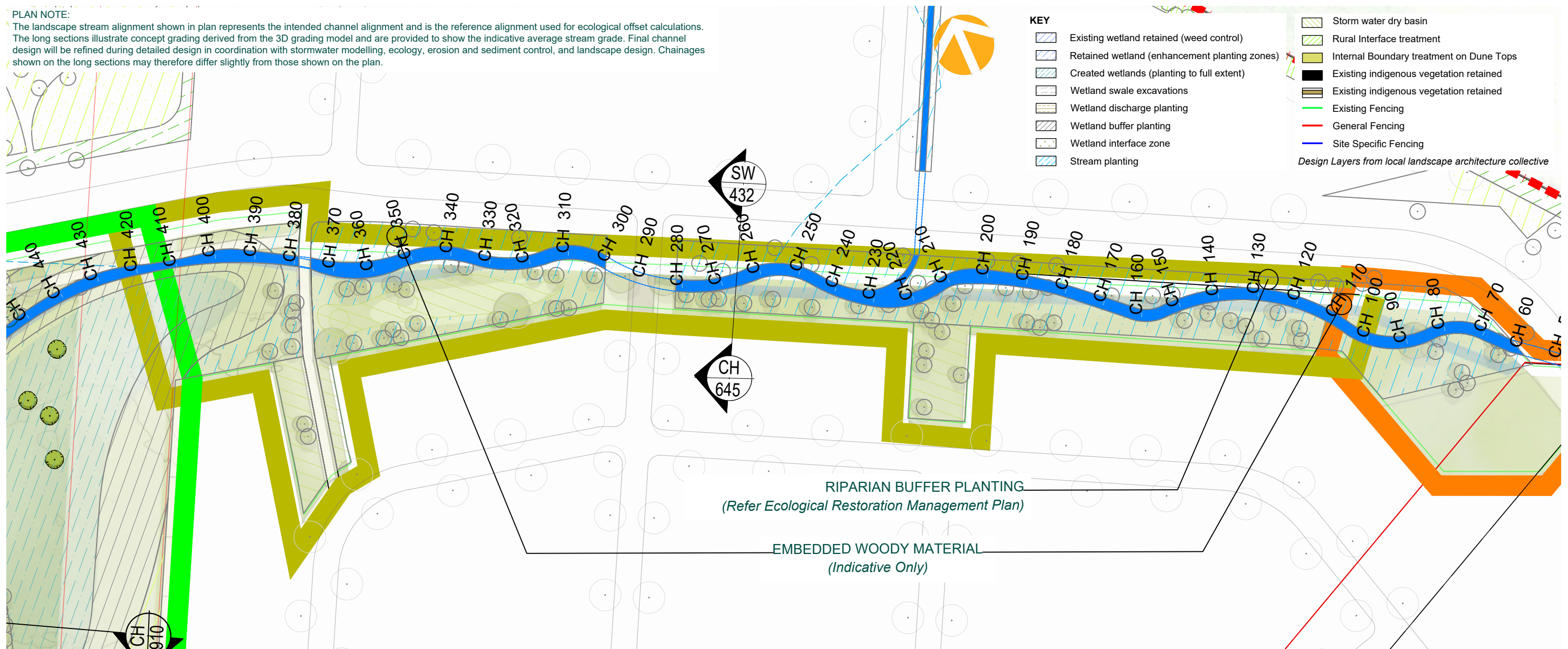
TITLE	Conceptual Stream Realignment Reach 1 – Upper Reach (Overflow Drain)
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Rd Peka Peka

DESIGNED BY	-
DRAWN BY	JH
APPROVED BY	JJH
JOB	2911
STAGE	L1
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

- NOTES**
1. This drawing illustrates conceptual stream alignment intent only.
 2. Average longitudinal gradient and bend radii shown is derived from Landlink long section drawings.
 3. Instream variability (including pool-run-riffle sequencing) is diagrammatic only.
 4. Detailed bed levels, structures and ecological measures are subject to detailed design and implementation in accordance with the Ecological Restoration Management Plan.
 5. Refer to the Ecological Restoration Management Plan for indicative instream typology and planting guidance.

1 Ngaio Road, Waikanae 5036 + contactus@Landlink.co.nz
 DATE 13/03/2026
 SCALE 1:1500
 SHEET 2911-ALL-SW-441

PLAN NOTE:
 The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. The long sections illustrate concept grading derived from the 3D grading model and are provided to show the indicative average stream grade. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages shown on the long sections may therefore differ slightly from those shown on the plan.



TITLE **Conceptual Stream Realignment
Reach 2 – Middle Reach**

CLIENT **Waikanae North Developments Ltd**

PROJECT **171 Peka Peka Rd**
Peka Peka

DESIGNED BY -

DRAWN BY **JH**

APPROVED BY **JJH**

JOB **2911**

STAGE **L1**

REVISION **C**

REVISION DETAILS **Issued for Consent - 13/03/2026**

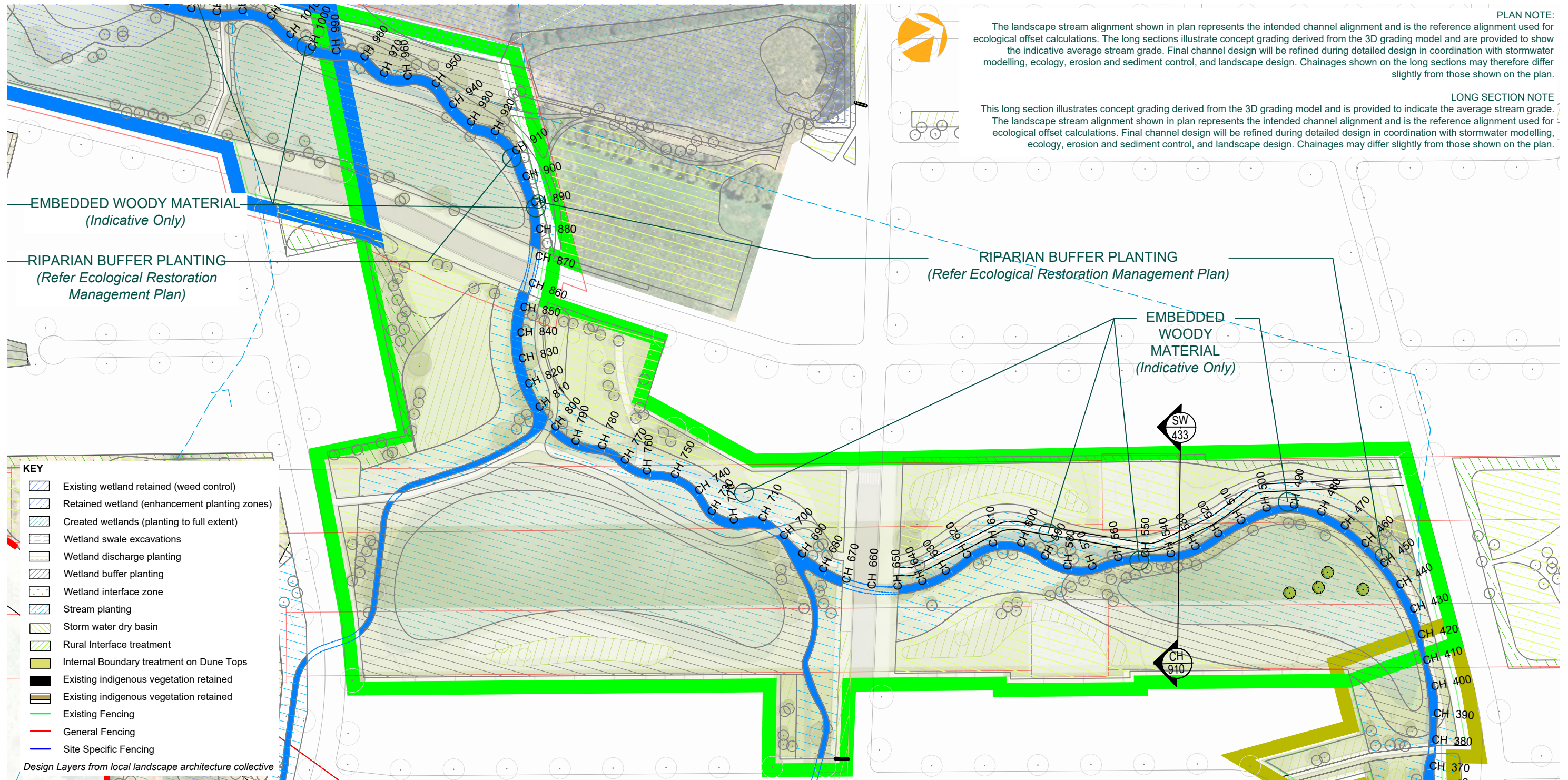
- NOTES**
1. This drawing illustrates conceptual stream alignment intent only.
 2. Average longitudinal gradient and bend radii shown is derived from Landlink long section drawings.
 3. Instream variability (including pool-run-riffle sequencing) is diagrammatic only.
 4. Detailed bed levels, structures and ecological measures are subject to detailed design and implementation in accordance with the Ecological Restoration Management Plan.
 5. Refer to the Ecological Restoration Management Plan for indicative instream typology and planting guidance.

1 Ngaio Road, Waikanae 5036 + contactus@Landlink.co.nz

DATE **13/03/2026**

SCALE **1:1000**

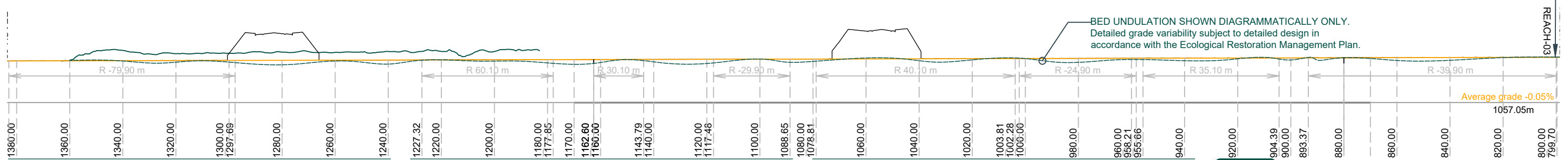
SHEET **2911-ALL-SW-442**



PLAN NOTE:
 The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. The long sections illustrate concept grading derived from the 3D grading model and are provided to show the indicative average stream grade. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages shown on the long sections may therefore differ slightly from those shown on the plan.

LONG SECTION NOTE
 This long section illustrates concept grading derived from the 3D grading model and is provided to indicate the average stream grade. The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages may differ slightly from those shown on the plan.

- KEY**
- Existing wetland retained (weed control)
 - Retained wetland (enhancement planting zones)
 - Created wetlands (planting to full extent)
 - Wetland swale excavations
 - Wetland discharge planting
 - Wetland buffer planting
 - Wetland interface zone
 - Stream planting
 - Storm water dry basin
 - Rural Interface treatment
 - Internal Boundary treatment on Dune Tops
 - Existing indigenous vegetation retained
 - Existing indigenous vegetation retained
 - Existing Fencing
 - General Fencing
 - Site Specific Fencing
- Design Layers from local landscape architecture collective*



TITLE Conceptual Stream Realignment Reach 3 – Replacement Alignment

CLIENT Waikanae North Developments Ltd

PROJECT 171 Peka Peka Rd
Peka Peka

DESIGNED BY -

DRAWN BY JH

APPROVED BY JJH

JOB 2911

STAGE L1

REVISION C

REVISION DETAILS Issued for Consent - 13/03/2026

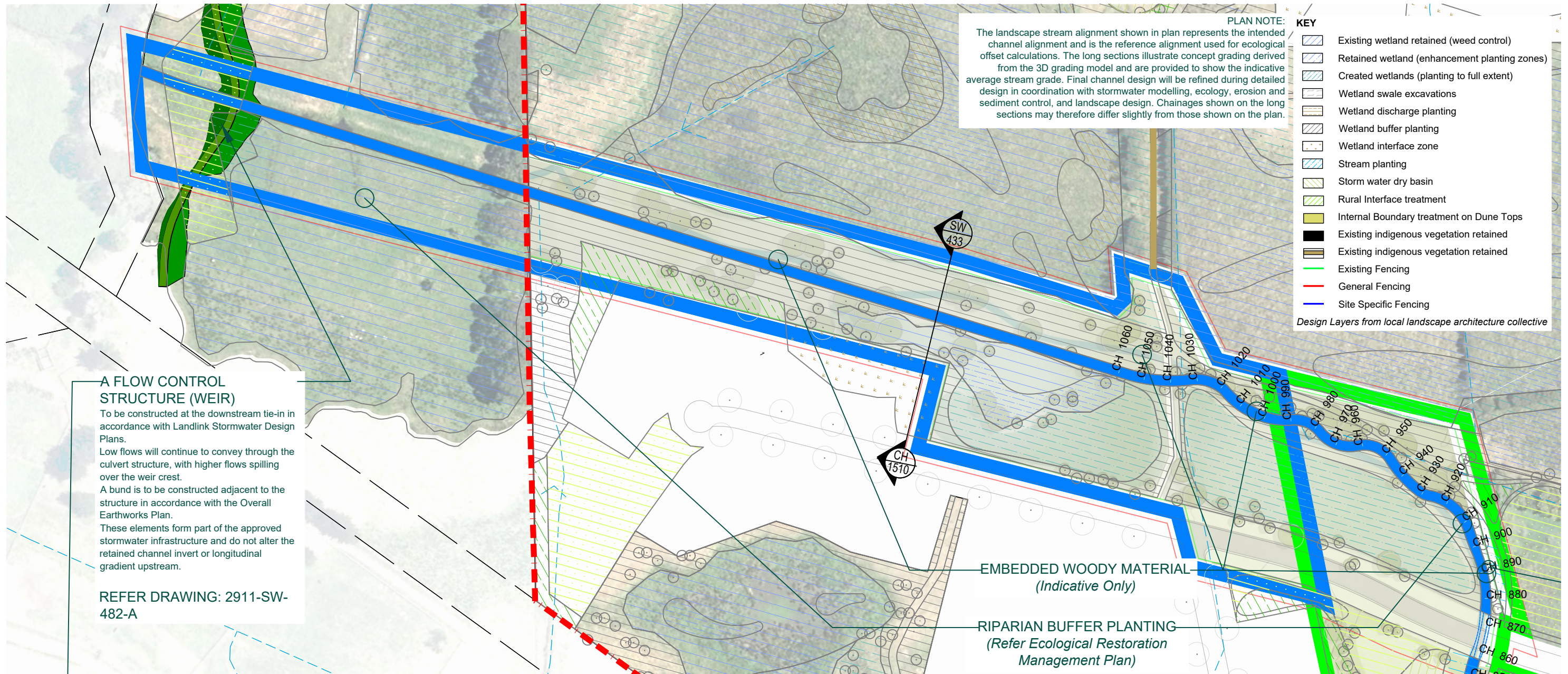
- NOTES**
- This drawing illustrates conceptual stream alignment intent only.
 - Average longitudinal gradient and bend radii shown is derived from Landlink long section drawings.
 - Instream variability (including pool-run-riffle sequencing) is diagrammatic only.
 - Detailed bed levels, structures and ecological measures are subject to detailed design and implementation in accordance with the Ecological Restoration Management Plan.
 - Refer to the Ecological Restoration Management Plan for indicative instream typology and planting guidance.

1 Ngaio Road, Waikanae 5036 + contactus@Landlink.co.nz

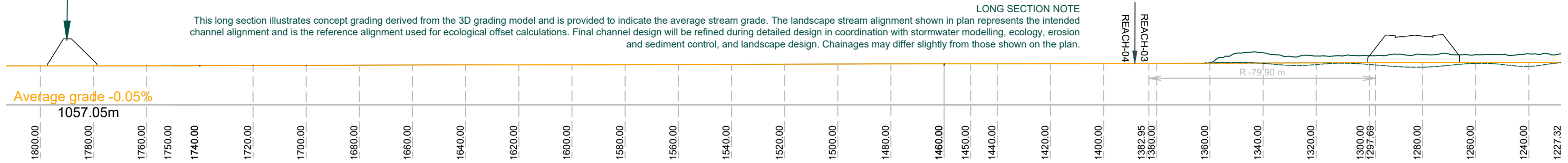
DATE 02/03/2025

SCALE 1:1500

SHEET 2911-ALL-SW-443



LONG SECTION NOTE
This long section illustrates concept grading derived from the 3D grading model and is provided to indicate the average stream grade. The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages may differ slightly from those shown on the plan.



TITLE	Conceptual Stream Realignment Reach 4 – Existing Drain Bed Retained
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Rd Peka Peka

DESIGNED BY	-
DRAWN BY	JH
APPROVED BY	JJH
JOB	2911
STAGE	L1
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

- NOTES**
- This drawing illustrates conceptual stream alignment intent only.
 - Average longitudinal gradient and bend radii shown is derived from Landlink long section drawings.
 - Instream variability (including pool-run-riffle sequencing) is diagrammatic only.
 - Detailed bed levels, structures and ecological measures are subject to detailed design and implementation in accordance with the Ecological Restoration Management Plan.
 - Refer to the Ecological Restoration Management Plan for indicative instream typology and planting guidance.

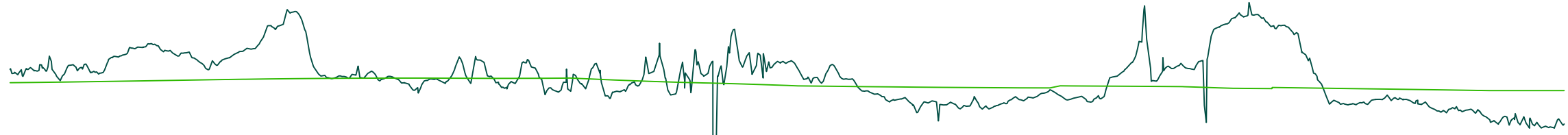
1 Ngaio Road, Waikanae 5036 + contactus@Landlink.co.nz
DATE 13/03/2026
SCALE 1:1500
SHEET 2911-ALL-SW-444

KEY

- BASE OF DRAIN
- NATURAL SURFACE
- TOP OF PEAT
- BOTTOM OF PEAT

NOTES

This long section illustrates concept grading derived from the 3D grading model and is provided to indicate the average stream grade. The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages may differ slightly from those shown on the plan.



Horiz Curve Data

Vertical Grade

Vertical Grade Length

Vertical Curve Length

Vertical Curve Radius

DATUM R.L. 3.000

Bottom of Peat	870.00	880.00	893.37	900.00	904.39	920.00	940.00	955.66	958.21	960.00	980.00	1000.00	1002.28	1003.81	1020.00	1040.00	1060.00	1078.81	1080.00	1088.65	1100.00	1117.48	1120.00	1140.00	1143.79	1160.00	1162.60	1170.00
Top of Peat	5.48	5.48	5.49	5.5	5.5	5.51	5.52	5.52	5.52	5.52	5.52	5.48	5.48	5.48	5.45	5.44	5.43	5.45	5.44	5.44	5.43	5.43	5.43	5.41	5.41	5.4	5.4	5.4
NATURAL SURFACE	5.6	5.53	5.81	5.79	5.77	6.03	5.58	5.59	5.53	5.71	5.48	5.59	5.8	5.55	5.67	5.3	5.25	5.29	5.35	6.03	5.69	5.97	5.75	5.31	5.25	5.13	5.09	5.08
CUT/FILL	-0.76	-0.69	-0.98	-0.95	-0.94	-1.2	-0.77	-0.78	-0.72	-0.9	-0.68	-0.8	-1.01	-0.76	-0.89	-0.53	-0.49	-0.54	-0.6	-1.28	-0.95	-1.24	-1.02	-0.59	-0.54	-0.41	-0.38	-0.37
DESIGN LEVELS ON ROAD CENTRELINE	4.85	4.84	4.84	4.83	4.83	4.82	4.82	4.81	4.81	4.81	4.80	4.79	4.79	4.79	4.78	4.77	4.76	4.75	4.75	4.75	4.74	4.73	4.73	4.72	4.72	4.71	4.71	4.71
CHAINAGE	870.00	880.00	893.37	900.00	904.39	920.00	940.00	955.66	958.21	960.00	980.00	1000.00	1002.28	1003.81	1020.00	1040.00	1060.00	1078.81	1080.00	1088.65	1100.00	1117.48	1120.00	1140.00	1143.79	1160.00	1162.60	1170.00

LONGITUDINAL SECTION Drain 1 base
Horizontal scale 1:1000
Vertical scale 1:50

TITLE	Proposed Long Section – Waimeha Stream
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Road Peka Peka

DESIGNED BY	JaH
DRAWN BY	JaH
APPROVED BY	PT
JOB	2911
STAGE	SW
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

- NOTES**
- Topographical information has been compiled from multiple survey sources, including 2021 1-m LiDAR datasets VD-2016, UAV-derived photogrammetry TIN surfaces, and traditional ground survey methods. This combined dataset represents the most accurate available.
 - The natural ground surface contains localised irregularities due to triangulation processes. Surface levels shown are indicative and represent the general ground elevation along the proposed stream alignment.
 - Peat layer depths have been interpreted from test locations across the site, minimum, and maximum values have been adopted for design purposes; actual ground and peat conditions may vary during construction.
 - Proposed alignment is based on surveyed invert levels at upstream and downstream control points.



1 Ngaio Road, Waikanae 5036 + contactus@Landlink.co.nz
DATE 13/03/2026

SCALE Varies

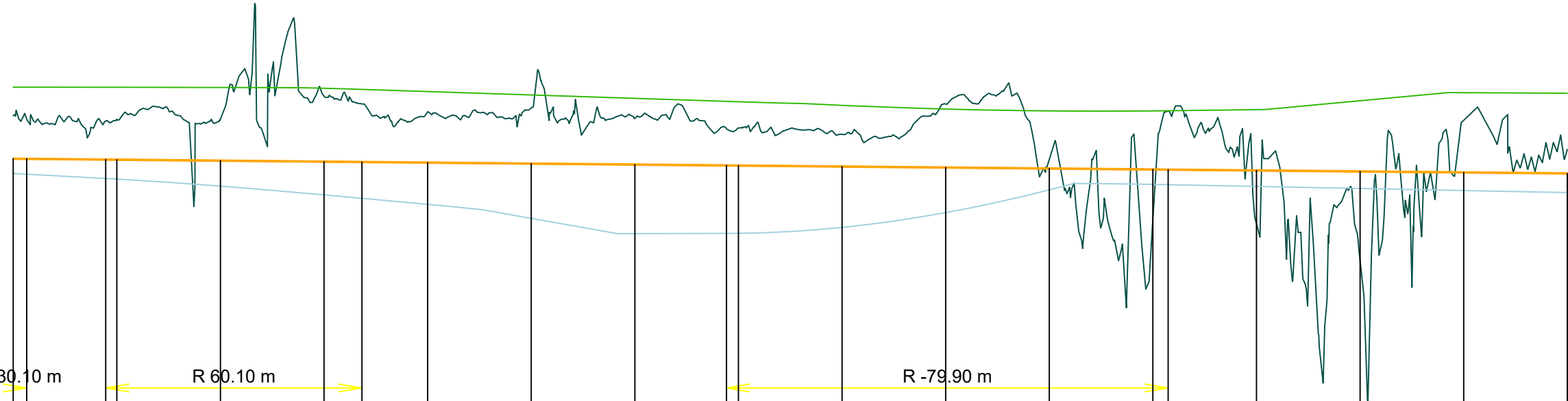
SHEET 2911-ALL-SW-453

KEY

- BASE OF DRAIN —
- NATURAL SURFACE —
- TOP OF PEAT —
- BOTTOM OF PEAT —

NOTES

This long section illustrates concept grading derived from the 3D grading model and is provided to indicate the average stream grade. The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages may differ slightly from those shown on the plan.



Horiz Curve Data

Vertical Grade

Vertical Grade Length

Vertical Curve Length

Vertical Curve Radius

DATUM R.L. 1.000

Bottom of Peat	1160.00	1162.60	1177.85	1180.00	1200.00	1220.00	1227.32	1240.00	1260.00	1280.00	1297.69	1300.00	1320.00	1340.00	1360.00	1380.00	1382.95	1400.00	1420.00	1440.00	1460.00
Top of Peat	4.57	4.56	4.52	4.51	4.45	4.36	4.33	4.27	4.14	3.99	3.99	3.99	4.05	4.19	4.41	4.46	4.46	4.44	4.42	4.4	4.38
NATURAL SURFACE	5.13	5.09	5.07	5.09	5.09	5.31	5.24	5.16	5.2	5.1	5	5.01	4.95	5.24	4.7	4.13	5.17	4.08	3.73	5.08	4.8
CUT/FILL	-0.41	-0.38	-0.37	-0.39	-0.4	-0.63	-0.56	-0.49	-0.54	-0.45	-0.36	-0.36	-0.31	-0.61	-0.09	0.48	-0.57	0.51	0.86	-0.5	-0.23
DESIGN LEVELS ON ROAD CENTRELINE	4.71	4.71	4.70	4.70	4.69	4.68	4.68	4.67	4.66	4.65	4.65	4.65	4.64	4.63	4.62	4.61	4.61	4.60	4.59	4.58	4.57
CHAINAGE	1160.00	1162.60	1177.85	1180.00	1200.00	1220.00	1227.32	1240.00	1260.00	1280.00	1297.69	1300.00	1320.00	1340.00	1360.00	1380.00	1382.95	1400.00	1420.00	1440.00	1460.00

LONGITUDINAL SECTION Drain 1 base
Horizontal scale 1:1000
Vertical scale 1:50

TITLE	Proposed Long Section – Waimeha Stream
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Road Peka Peka

DESIGNED BY	JaH
DRAWN BY	JaH
APPROVED BY	PT
JOB	2911
STAGE	SW
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

- NOTES**
- Topographical information has been compiled from multiple survey sources, including 2021 1-m LiDAR datasets VD-2016, UAV-derived photogrammetry TIN surfaces, and traditional ground survey methods. This combined dataset represents the most accurate available.
 - The natural ground surface contains localised irregularities due to triangulation processes. Surface levels shown are indicative and represent the general ground elevation along the proposed stream alignment.
 - Peat layer depths have been interpreted from test locations across the site, minimum, and maximum values have been adopted for design purposes; actual ground and peat conditions may vary during construction.
 - Proposed alignment is based on surveyed invert levels at upstream and downstream control points.



1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz
DATE 13/03/2026
SCALE Varies
SHEET 2911-ALL-SW-454

KEY

- BASE OF DRAIN
- NATURAL SURFACE
- TOP OF PEAT
- BOTTOM OF PEAT

NOTES

This long section illustrates concept grading derived from the 3D grading model and is provided to indicate the average stream grade. The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages may differ slightly from those shown on the plan.

Horiz Curve Data

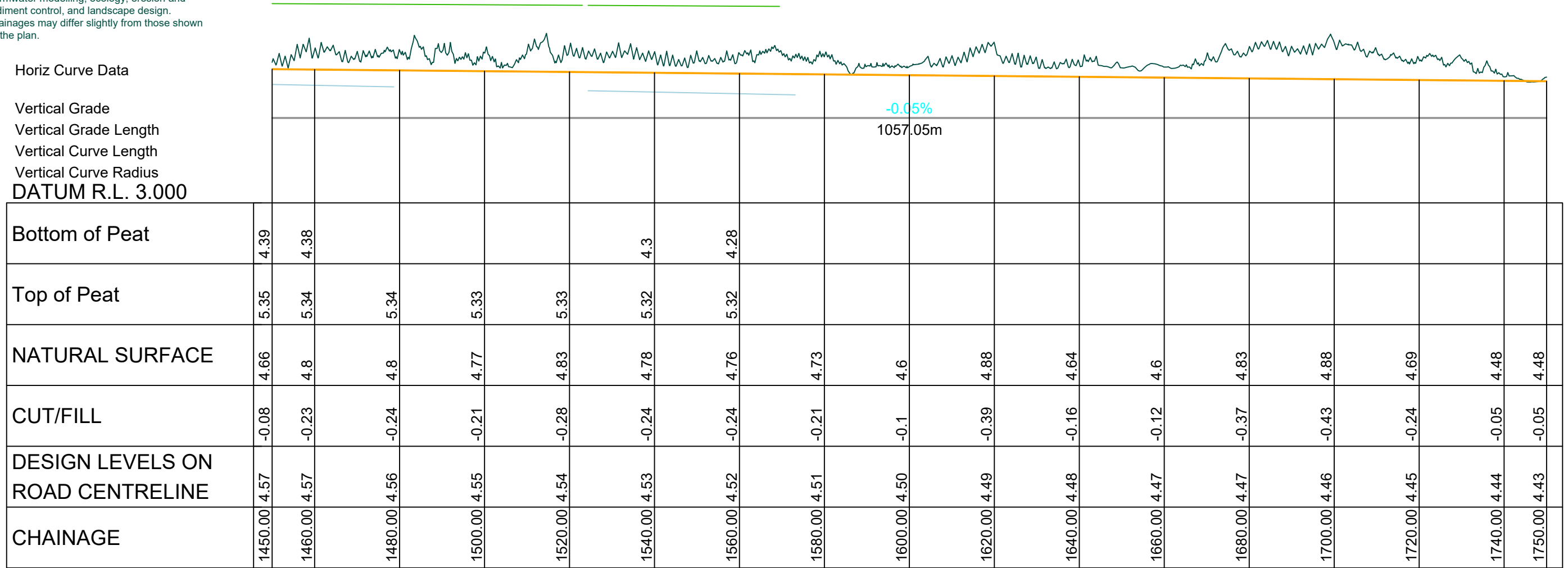
Vertical Grade

Vertical Grade Length

Vertical Curve Length

Vertical Curve Radius

DATUM R.L. 3.000



LONGITUDINAL SECTION Drain 1 base
Horizontal scale 1:1000
Vertical scale 1:50

TITLE	Proposed Long Section – Waimeha Stream
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Road Peka Peka

DESIGNED BY	JaH
DRAWN BY	JaH
APPROVED BY	PT
JOB	2911
STAGE	SW
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

- NOTES**
- Topographical information has been compiled from multiple survey sources, including 2021 1-m LiDAR datasets VD-2016, UAV-derived photogrammetry TIN surfaces, and traditional ground survey methods. This combined dataset represents the most accurate available.
 - The natural ground surface contains localised irregularities due to triangulation processes. Surface levels shown are indicative and represent the general ground elevation along the proposed stream alignment.
 - Peat layer depths have been interpreted from test locations across the site, minimum, and maximum values have been adopted for design purposes; actual ground and peat conditions may vary during construction.
 - Proposed alignment is based on surveyed invert levels at upstream and downstream control points.



1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz
DATE 13/03/2026
SCALE Varies
SHEET 2911-ALL-SW-455

KEY

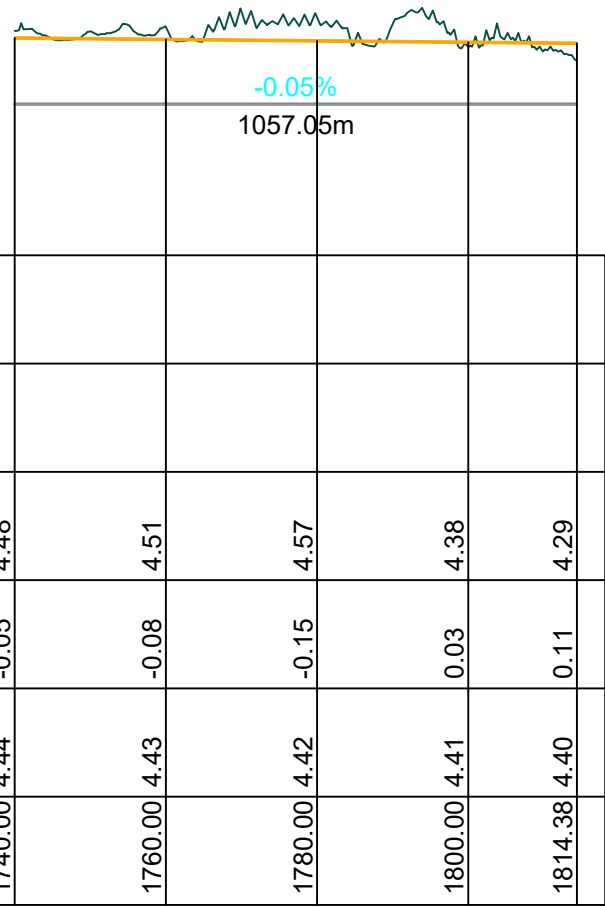
- BASE OF DRAIN
- NATURAL SURFACE
- TOP OF PEAT
- BOTTOM OF PEAT

NOTES

This long section illustrates concept grading derived from the 3D grading model and is provided to indicate the average stream grade. The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages may differ slightly from those shown on the plan.

Horiz Curve Data

Vertical Grade
 Vertical Grade Length
 Vertical Curve Length
 Vertical Curve Radius
 DATUM R.L. 3.000



Bottom of Peat					
Top of Peat					
NATURAL SURFACE	4.48	4.51	4.57	4.38	4.29
CUT/FILL	-0.05	-0.08	-0.15	0.03	0.11
DESIGN LEVELS ON ROAD CENTRELINE	4.44	4.43	4.42	4.41	4.40
CHAINAGE	1740.00	1760.00	1780.00	1800.00	1814.38

LONGITUDINAL SECTION Drain 1 base
 Horizontal scale 1:1000
 Vertical scale 1:50

TITLE	Proposed Long Section – Waimeha Stream
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Road PEKA PEKA

DESIGNED BY	JaH
DRAWN BY	JaH
APPROVED BY	PT
JOB	2911
STAGE	SW
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

- NOTES**
- Topographical information has been compiled from multiple survey sources, including 2021 1-m LiDAR datasets VD-2016, UAV-derived photogrammetry TIN surfaces, and traditional ground survey methods. This combined dataset represents the most accurate available.
 - The natural ground surface contains localised irregularities due to triangulation processes. Surface levels shown are indicative and represent the general ground elevation along the proposed stream alignment.
 - Peat layer depths have been interpreted from test locations across the site, minimum, and maximum values have been adopted for design purposes; actual ground and peat conditions may vary during construction.
 - Proposed alignment is based on surveyed invert levels at upstream and downstream control points.



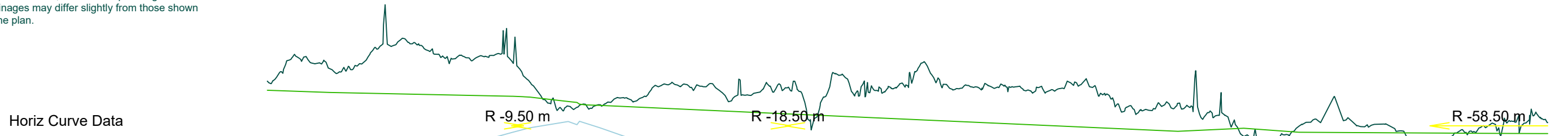
1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz
 DATE 13/03/2026
 SCALE Varies
 SHEET 2911-ALL-SW-456

KEY

BASE OF DRAIN —
 NATURAL SURFACE —
 TOP OF PEAT —
 BOTTOM OF PEAT —

NOTES

This long section illustrates concept grading derived from the 3D grading model and is provided to indicate the average stream grade. The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages may differ slightly from those shown on the plan.



	290.00	300.00	320.00	340.00	347.24	350.04	351.55	360.00	361.40	380.00	400.00	410.76	411.43	412.53	420.00	440.00	460.00	480.00	500.00	520.00	540.00	560.00	562.41	580.00	590.00
Bottom of Peat	4.65	4.78	5.05	5.32	5.42	5.46	5.48	5.55	5.53	5.27	4.92	4.73	4.72	4.7	4.57	4.63	4.61	4.6	4.6	4.65	4.7	4.76	4.76	4.84	4.85
Top of Peat	5.92	5.9	5.87	5.85	5.85	5.84	5.84	5.79	5.78	5.71	5.67	5.64	5.64	5.64	5.62	5.58	5.53	5.49	5.44	5.47	5.42	5.42	5.42	5.41	5.41
NATURAL SURFACE	6.02	6.24	6.45	6.32	6.26	6.08	6.01	5.72	5.7	5.93	5.85	5.92	5.95	5.92	5.81	5.97	5.95	5.96	5.74	5.38	5.84	5.34	4.56	5.57	5.54
CUT/FILL	-1.04	-1.27	-1.49	-1.37	-1.32	-1.14	-1.07	-0.78	-0.77	-1	-0.94	-1.01	-1.06	-1.03	-0.92	-1.1	-1.09	-1.12	-0.91	-0.56	-1.04	-0.55	0.23	-0.8	-0.77
DESIGN LEVELS ON ROAD CENTRELINE	4.98	4.97	4.96	4.95	4.94	4.94	4.94	4.94	4.94	4.92	4.91	4.90	4.89	4.89	4.88	4.87	4.86	4.84	4.83	4.82	4.80	4.79	4.79	4.78	4.77
CHAINAGE	290.00	300.00	320.00	340.00	347.24	350.04	351.55	360.00	361.40	380.00	400.00	410.76	411.43	412.53	420.00	440.00	460.00	480.00	500.00	520.00	540.00	560.00	562.41	580.00	590.00

LONGITUDINAL SECTION Drain 2 base
 Horizontal scale 1:1000
 Vertical scale 1:50

TITLE **Proposed Long Section – Central Drain**
 Sheet 2 of 3

CLIENT **Waikanae North Developments Ltd**

PROJECT **171 Peka Peka Road**
 Peka Peka

DESIGNED BY **JaH**

DRAWN BY **JaH**

APPROVED BY **PT**

JOB **2911**

STAGE **SW**

REVISION **C**

REVISION DETAILS **Issued for Consent - 13/03/2026**

NOTES

- Topographical information has been compiled from multiple survey sources, including 2021 1-m LiDAR datasets VD-2016, UAV-derived photogrammetry TIN surfaces, and traditional ground survey methods. This combined dataset represents the most accurate available.
- The natural ground surface contains localised irregularities due to triangulation processes. Surface levels shown are indicative and represent the general ground elevation along the proposed stream alignment.
- Peat layer depths have been interpreted from test locations across the site, minimum, and maximum values have been adopted for design purposes; actual ground and peat conditions may vary during construction.
- Proposed alignment is based on surveyed invert levels at upstream and downstream control points.

1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz
 DATE **13/03/2026**

SCALE **Varies**

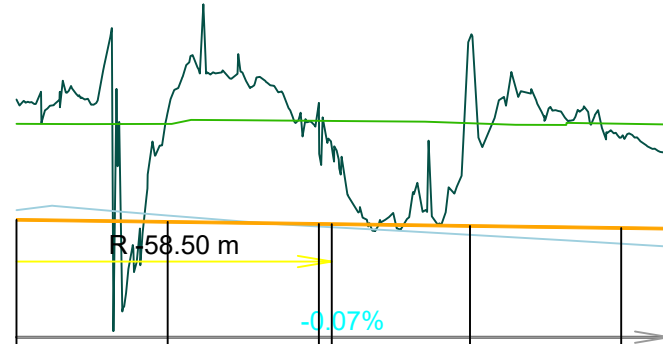
SHEET **2911-ALL-SW-458**

KEY

BASE OF DRAIN 
 NATURAL SURFACE 
 TOP OF PEAT 
 BOTTOM OF PEAT 

NOTES

This long section illustrates concept grading derived from the 3D grading model and is provided to indicate the average stream grade. The landscape stream alignment shown in plan represents the intended channel alignment and is the reference alignment used for ecological offset calculations. Final channel design will be refined during detailed design in coordination with stormwater modelling, ecology, erosion and sediment control, and landscape design. Chainages may differ slightly from those shown on the plan.



Horiz Curve Data

Vertical Grade
 Vertical Grade Length
 Vertical Curve Length
 Vertical Curve Radius
 DATUM R.L. 3.000

Bottom of Peat	4.84	4.8	4.73	4.73	4.68	4.62	4.59
Top of Peat	5.41	5.41	5.43	5.43	5.41	5.41	5.4
NATURAL SURFACE	5.57	5.49	5.55	5.26	5.98	5.32	5.16
CUT/FILL	-0.8	-0.72	-0.8	-0.51	-1.24	-0.6	
DESIGN LEVELS ON ROAD CENTRELIN	4.78	4.76	4.75	4.75	4.74	4.72	
CHAINAGE	580.00	600.00	620.00	621.71	640.00	660.00	670.66

LONGITUDINAL SECTION Drain 2 base
 Horizontal scale 1:1000
 Vertical scale 1:50

TITLE **Proposed Long Section – Central Drain**
 Sheet 3 of 3
 CLIENT **Waikanae North Developments Ltd**
 PROJECT **171 Peka Peka Road**
 Peka Peka

DESIGNED BY **JaH**
 DRAWN BY **JaH**
 APPROVED BY **PT**
 JOB **2911**
 STAGE **SW**
 REVISION **C**
 REVISION DETAILS Issued for Consent - 13/03/2026

NOTES

- Topographical information has been compiled from multiple survey sources, including 2021 1-m LiDAR datasets VD-2016, UAV-derived photogrammetry TIN surfaces, and traditional ground survey methods. This combined dataset represents the most accurate available.
- The natural ground surface contains localised irregularities due to triangulation processes. Surface levels shown are indicative and represent the general ground elevation along the proposed stream alignment.
- Peat layer depths have been interpreted from test locations across the site, minimum, and maximum values have been adopted for design purposes; actual ground and peat conditions may vary during construction.
- Proposed alignment is based on surveyed invert levels at upstream and downstream control points.



1 Ngaio Road, Waikanae 5036 + contactus@Landlink.nz
 DATE **13/03/2026**

SCALE **Varies**

SHEET **2911-ALL-SW-459**

