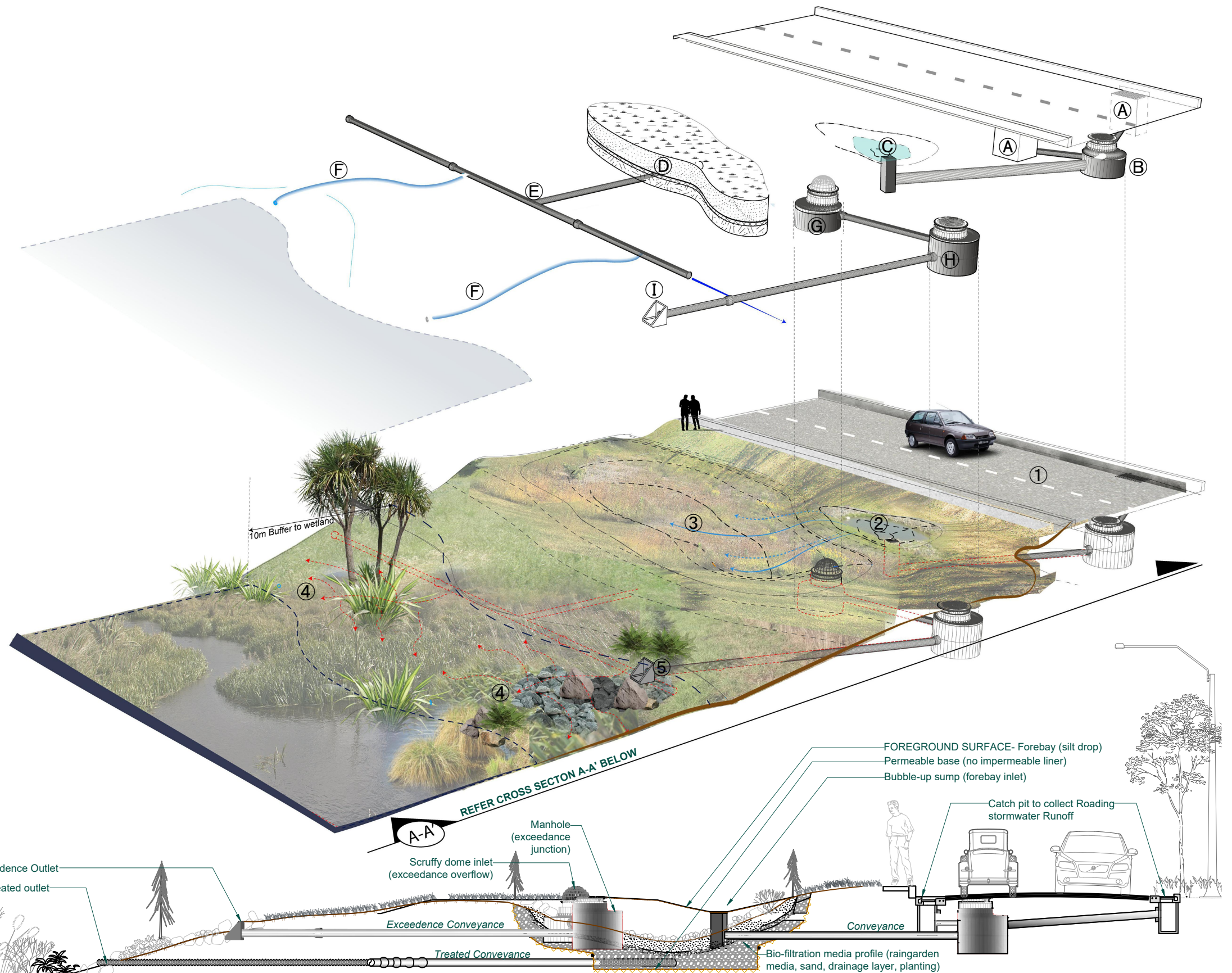


TREATMENT TRAIN (numbered features)

- Catchments & Network Conveyance** – Runoff collected from development catchments and road networks, conveyed via catchpits and manholes (A, B).
- Forebay (Sediment Pond)** – Initial treatment stage via bubble-up sump (C), allowing sediment to settle.
- Dry Basin (Treatment Basin)** – Biofiltration zone (D) with: 600 mm suitable raingarden media blend planted with suitable natives, 100 mm sand transition layer, 300 mm drainage layer of 50–150 mm river stones containing Novacoil underdrains (F). Geotextile wrapping around drainage layer and basin sides to prevent fines ingress.
- Treated Water Dispersal** – Treated flows conveyed through 150 mm pipes (E) to Novacoil underdrains, which extends parallel to the existing environment to provide diffuse discharge back to the wetland.
- Exceedance Outlet** – For flows greater than the water quality treatment storm 1/3 of the 50% AEP, the basin edge and exceedance system activates. Overflows collected at scruffy dome inlet (G), diverted via Manhole (H), and discharged through exceedance outfall headwall (I).

Specific Devices (Lettered Features)

- A. Catch pit
- B. Manhole (primary conveyance and exceedance junction)
- C. Bubble-up sump (forebay inlet)
- D. Bio-filtration media profile (raingarden media, sand, drainage layer, planting)
- E. Treated conveyance system (150 mm Novacoil)
- F. Diffuse discharge to stabilized outlet max 1 l/s per m
- G. Scruffy dome inlet (exceedance overflow)
- H. Manhole (exceedance junction)
- I. Exceedance flow outfall headwall



SECTION A-A' Scale 1:100

TITLE	Typical Stormwater Typology Bio retention Basin
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Road Peka Peka

DESIGNED BY	JaH
DRAWN BY	JcH
APPROVED BY	PT
JOB	2911
STAGE	E1
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

NOTES

- Specific component design (pipe sizes, sump details, media specs) to be confirmed at detailed design stage. Refer to stormwater design plan for basin layouts, groundwater levels, and 10% AEP flood levels.
- This schematic is conceptual only — all dimensions, levels, and materials subject to confirmation in detailed design and construction documentation.

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

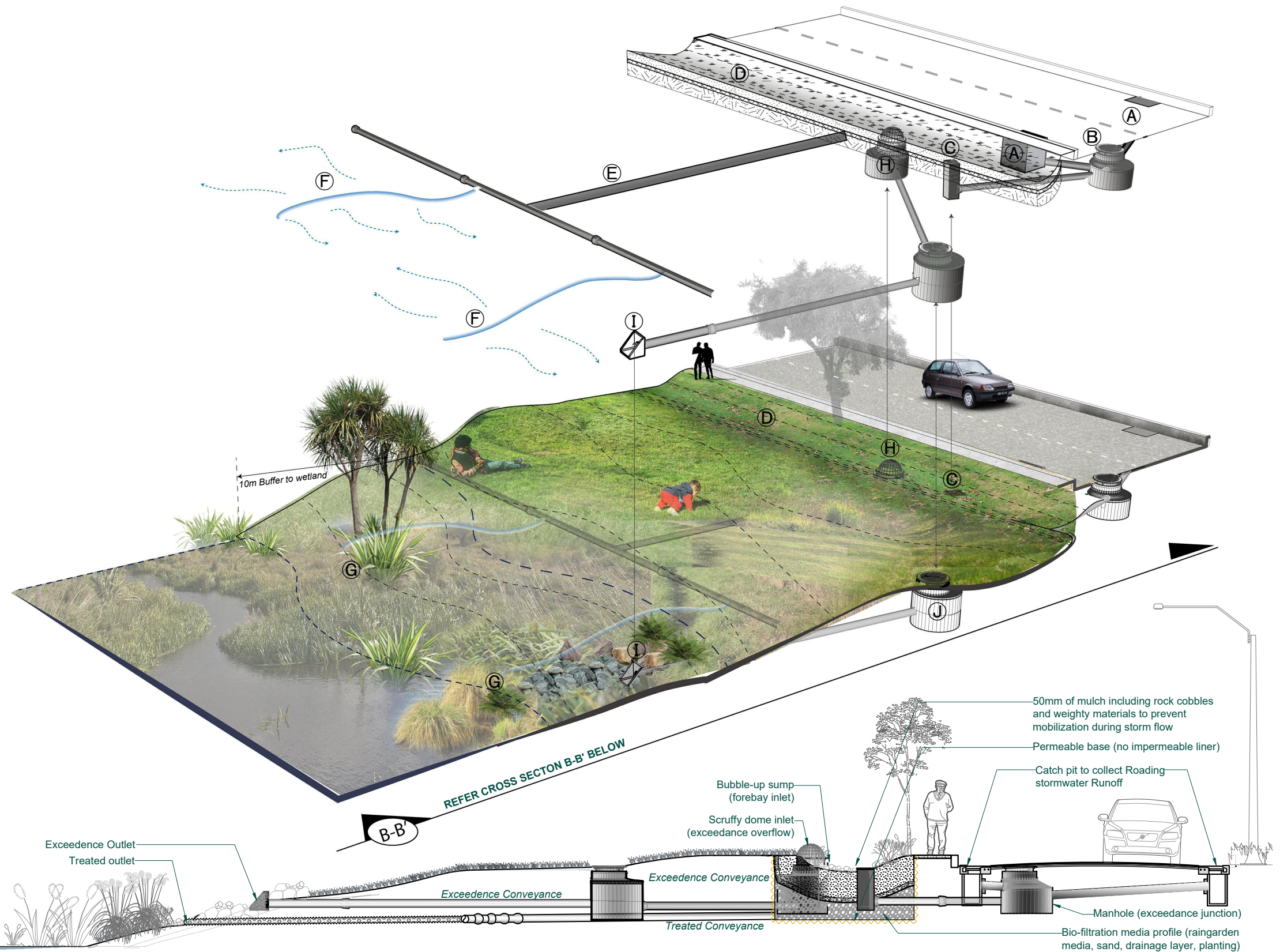
SCALE NTS
SHEET 2911-ALL-SW-480

TREATMENT TRAIN (numbered features)

- Catchments & Network Conveyance** – Runoff collected from development catchments and road networks, conveyed via catchpits and manholes (A, B).
- Bio retention swale (Treatment Basin)** – Biofiltration zone (D) with: 600 mm suitable raingarden media blend planted with suitable natives, 100 mm sand transition layer, 300 mm drainage layer of 50–150 mm river stones containing Novacoil underdrains (F). Geotextile wrapping around drainage layer and basin sides to prevent fines ingress.
- Treated Water Dispersal** – Treated flows conveyed through 150 mm pipes (E) to Novacoil underdrains, which extend at parallel to existing environment to provide diffuse discharge.
- Exceedance Outlet** – For flows greater than the water quality treatment storm 1/3 of the 50% AEP, causes the exceedance system to activate. Overflows collected at scruffy dome inlet (G), diverted via Manhole B (H), and discharged through exceedance outfall headwall (I).

Specific Devices (Lettered Features)

- A. Catchpit
- B. Manhole (primary conveyance junction)
- C. Bubble-up sump (Swale Inlet)
- D. Bio-filtration media profile (raingarden media, sand, drainage layer, planting)
- E. Treated conveyance system (150 mm Novacoil)
- F. Diffuse discharge to stabilized outlet max 1 l/s per m
- G. Scruffy dome inlet (exceedance overflow)
- H. Exceedance flow outfall headwall
- I. Manhole (exceedance junction)



SECTION B-B' Scale 1:100

TITLE	Typical Stormwater Typology Bio Retention Swale
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Road Peka Peka

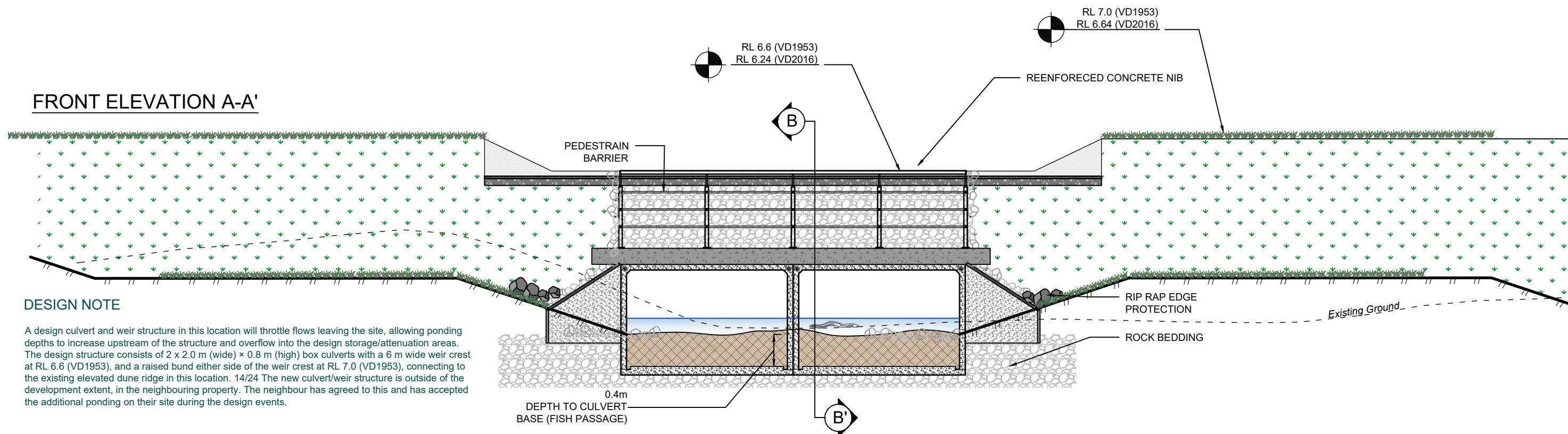
DESIGNED BY	JaH
DRAWN BY	JCh
APPROVED BY	PT
JOB	2911
STAGE	SW
REVISION	C
REVISION DETAILS	Issued for Consent - 13/03/2026

- NOTES**
- Specific component design (pipe sizes, sump details, media specs) to be confirmed at detailed design stage.
 - Refer to stormwater design plan for basin layouts, groundwater levels, and 10% AEP flood levels.
 - This schematic is conceptual only — all dimensions, levels, and materials subject to confirmation in detailed design and construction documentation.

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SCALE NTS
SHEET
2911-ALL-SW-481

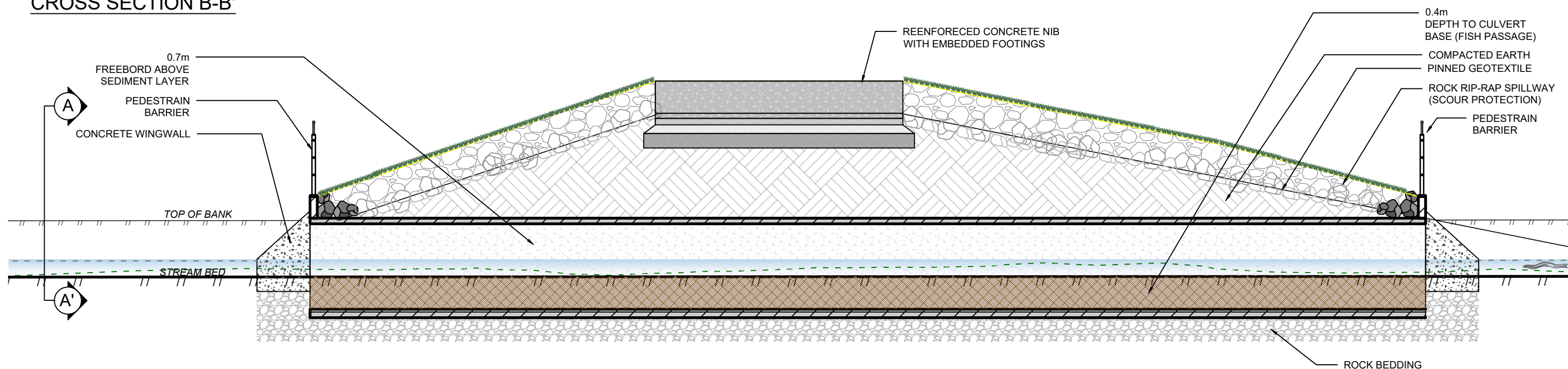
FRONT ELEVATION A-A'



DESIGN NOTE

A design culvert and weir structure in this location will throttle flows leaving the site, allowing ponding depths to increase upstream of the structure and overflow into the design storage/attenuation areas. The design structure consists of 2 x 2.0 m (wide) x 0.8 m (high) box culverts with a 6 m wide weir crest at RL 6.6 (VD1953), and a raised bund either side of the weir crest at RL 7.0 (VD1953), connecting to the existing elevated dune ridge in this location. 14/24 The new culvert/weir structure is outside of the development extent, in the neighbouring property. The neighbour has agreed to this and has accepted the additional ponding on their site during the design events.

CROSS SECTION B-B'



TITLE	Weir Structure Detail Stormwater Details
CLIENT	Waikanae North Developments Ltd
PROJECT	171 Peka Peka Rd Peka Peka

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

NOTES

- 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
- In-stream works shall follow approved methodologies, including temporary diversions, flumes, or over-pumping, to maintain flow continuity and isolate work areas during construction.

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2911-ALL-SW-482