



Tie in point upstream. Channel to be graded into the topography of the existing bed to ensure that the implemented works do not produce any abrupt breaks in slope in the river bed (i.e. that could provide the initiation of incision/ head-cut processes).

Construction of a new plane bed channel. Bed material 2mm-250mm rounded material (D50 = 130mm). More details in Design Method Statement.

Construction of an inset floodplain on both banks utilising the excavated material from the new channel where possible.

Seeding and tree planting throughout river banks and floodplain to reestablish riparian vegetation. Install tree guards on all planted trees for protection.

Rock rolls buried on both banks along embankment toe for erosion control.

Transition into 'step-pool' channel section.

Step-pool channel section including rock toe protection.

Replace existing rock armour hard bank protection upstream of the bridge with rock rolls and rock mattress.

Culvert outfall to be integrated into the new channel design. Add 100mm alluvial gravel cobble sized material on concrete bed of culvert outfall.

Tie in point downstream. Channel to be graded into the topography of the existing bed to ensure that the implemented works do not produce any abrupt breaks in slope in the river bed (i.e. that could provide the initiation of incision/ head-cut processes).

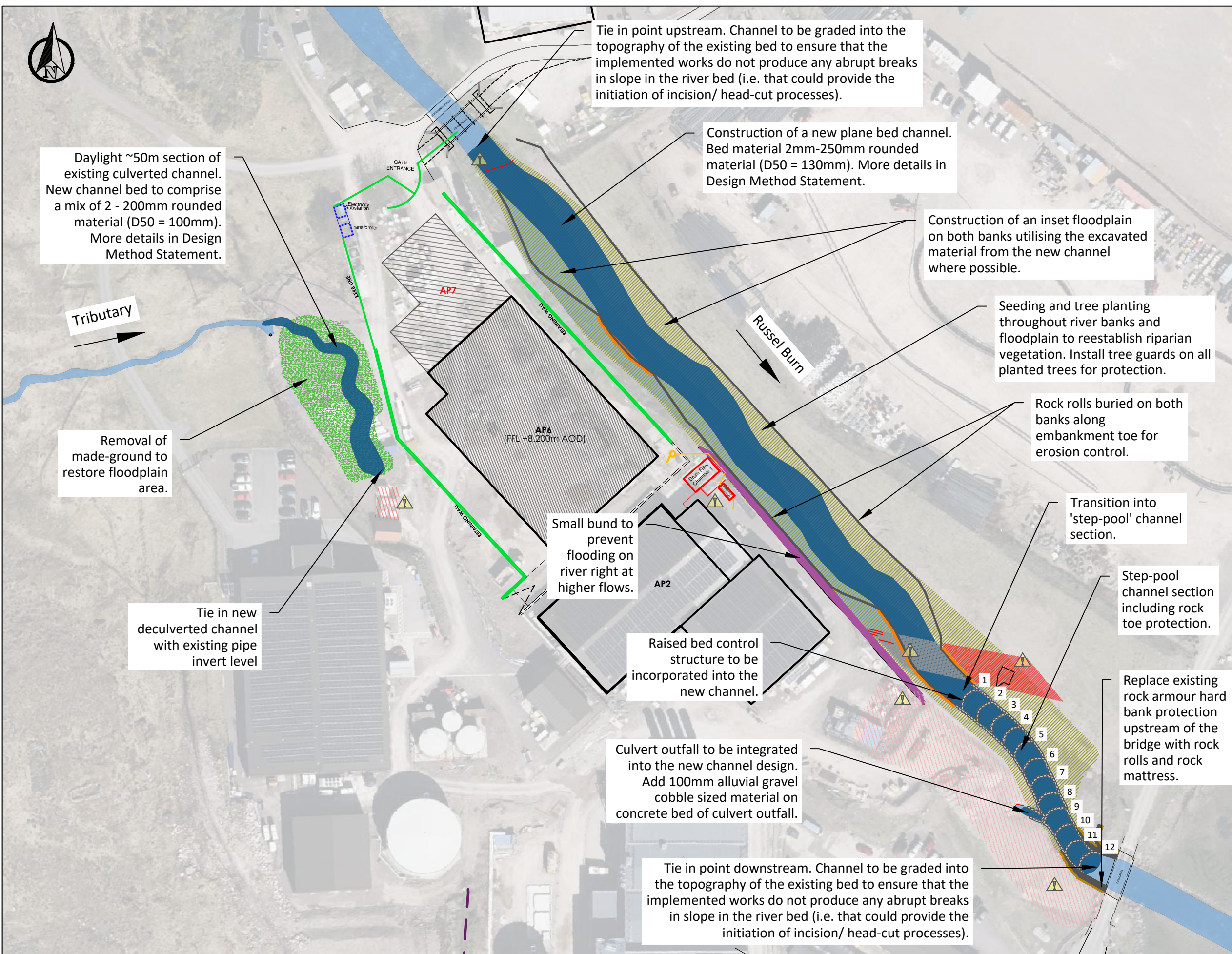
Daylight ~50m section of existing culverted channel. New channel bed to comprise a mix of 2 - 200mm rounded material (D50 = 100mm). More details in Design Method Statement.

Removal of made-ground to restore floodplain area.

Tie in new deculverted channel with existing pipe invert level

Small bund to prevent flooding on river right at higher flows.

Raised bed control structure to be incorporated into the new channel.



SAFETY HEALTH AND ENVIRONMENTAL INFORMATION
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CONSTRUCTION
 * Working in close proximity to deep water environments.
 * Disturbing or striking existing utilities and services.
 * Saturated ground conditions.
 * Protected species.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

LEGEND

- Existing channels
- Existing concrete bed protection
- Potential buried utilities
- Inferred buried pipes
- Existing pipes

Proposed Design

- New realigned channel
- Inset floodplain
- Earth bund
- Restored floodplain
- Step-pool section 12
- Rock rolls pyramid toe protection
- Coir rolls
- Rock mattress bank protection

Project Number 2150651

Project Title
Applecross Remedial Designs

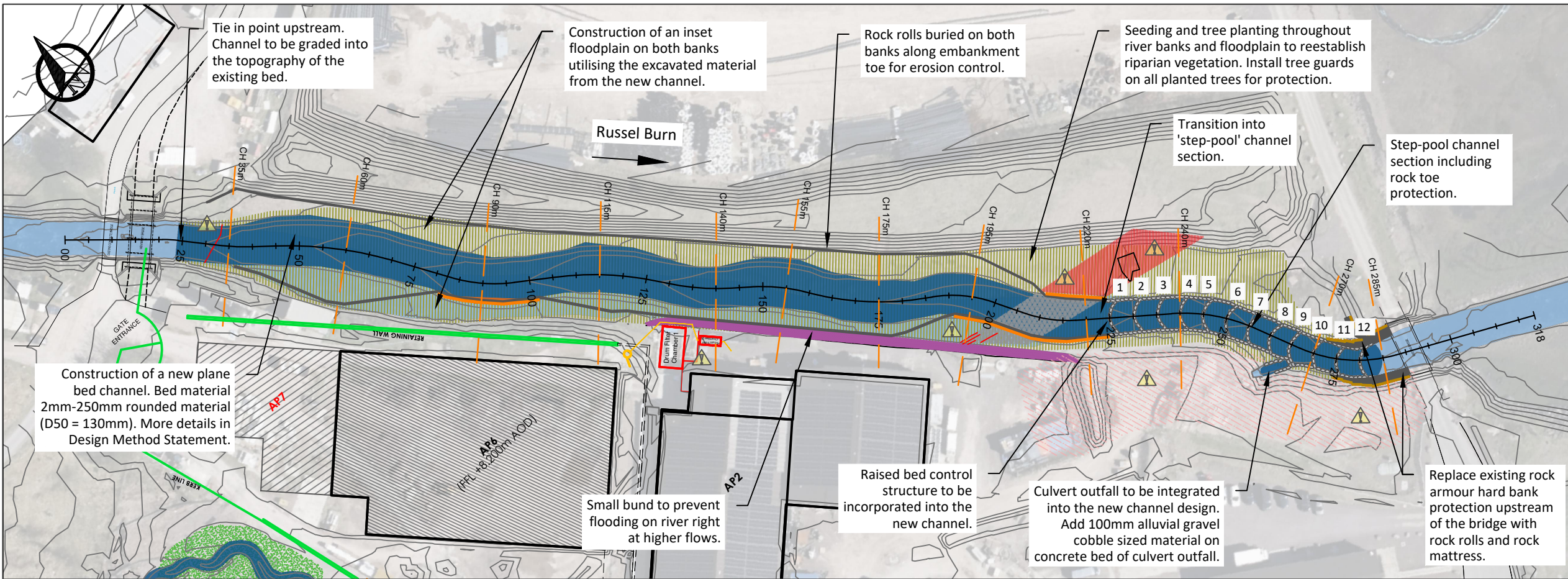
Drawing Title
DESIGN PLAN VIEW

Scale @ A3
 1:1,000
 0 12.5 25 Meters
 OSGB36 / British National Grid

Drawn	Date	Version
JL	17/09/2025	Rev4 v4
Designed	Checked	Approved
GS	--	--



Drawing Number
2150651_DWG_01



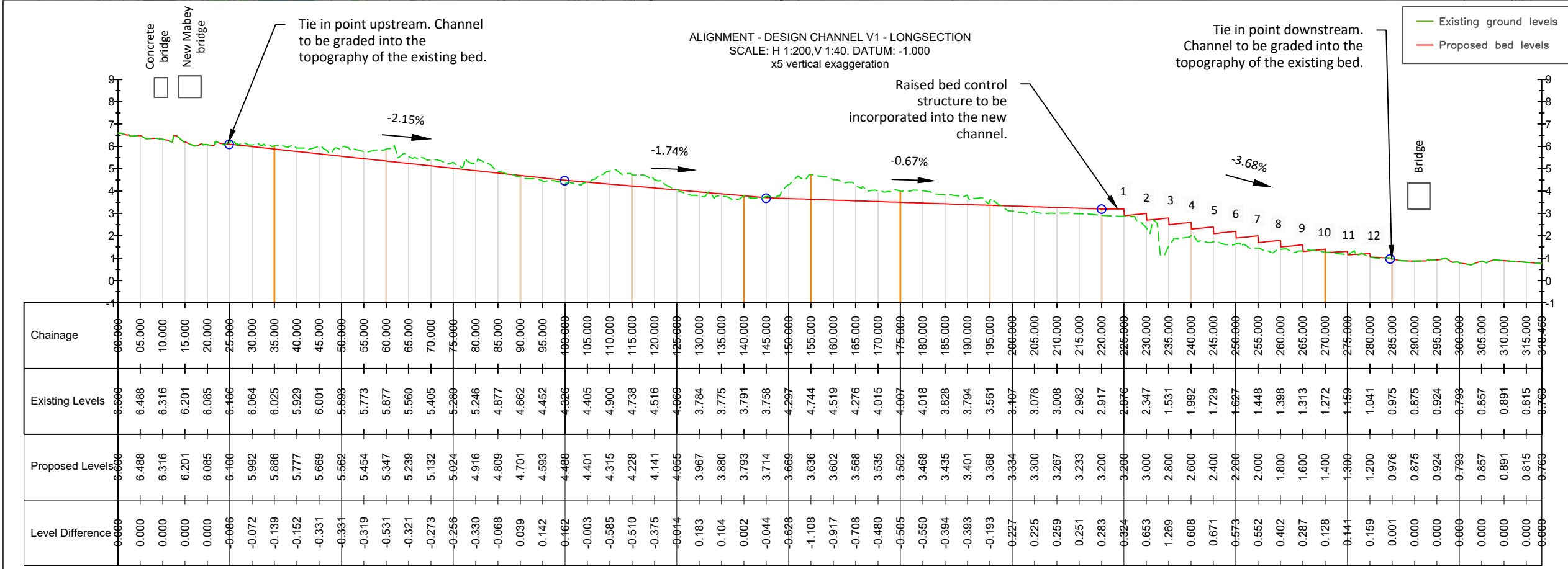
SAFETY HEALTH AND ENVIRONMENTAL INFORMATION
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CONSTRUCTION
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LEGEND

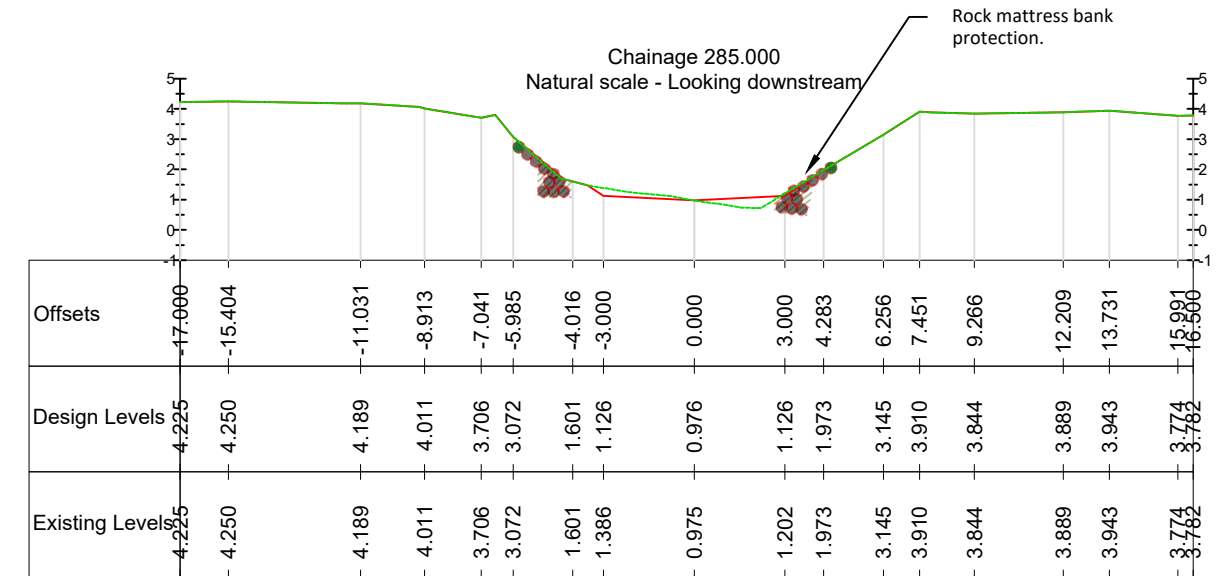
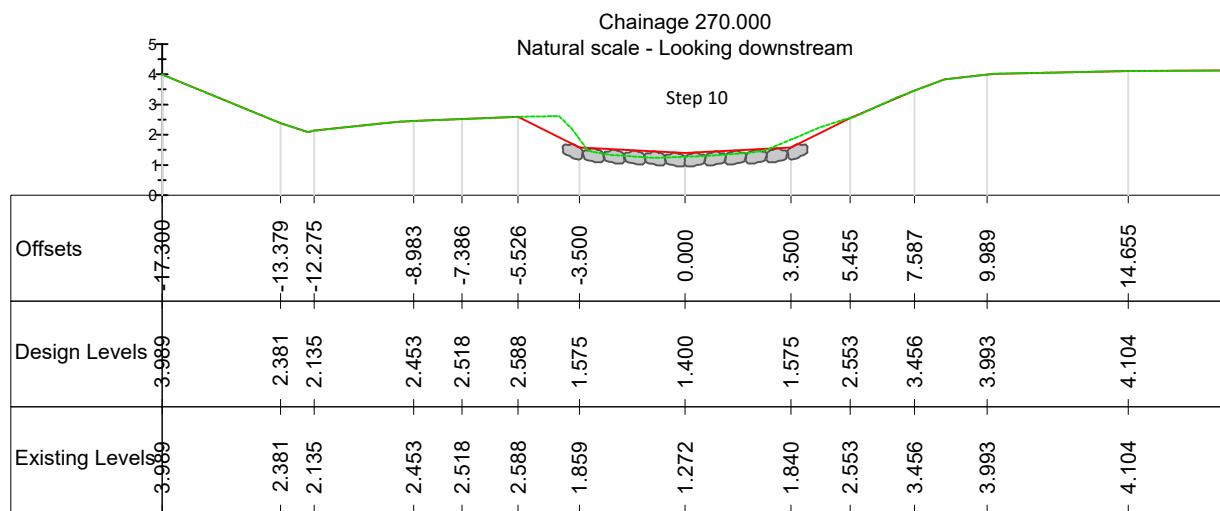
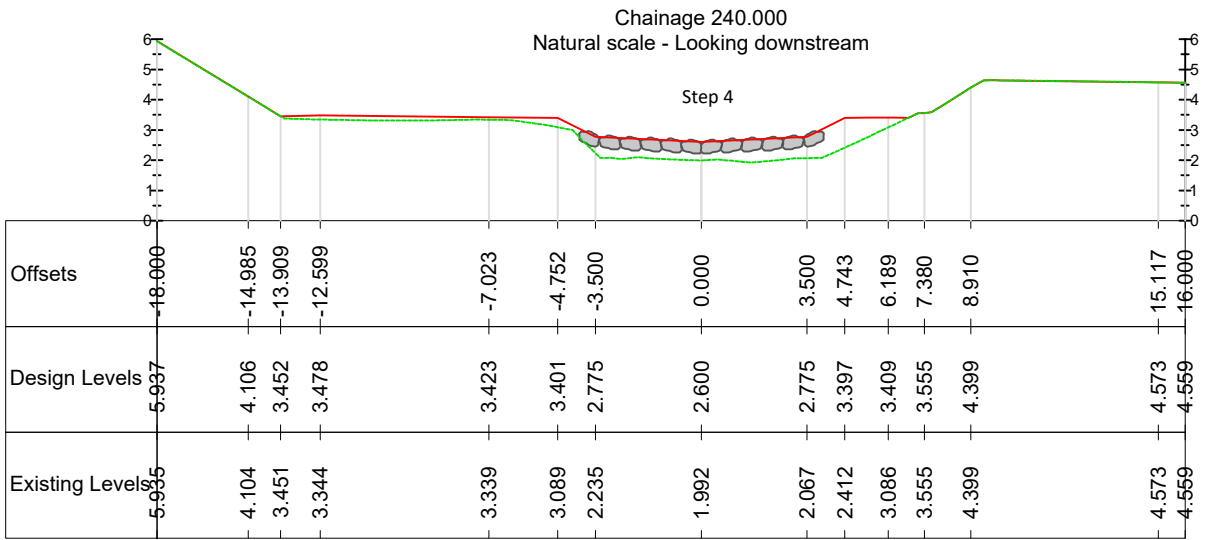
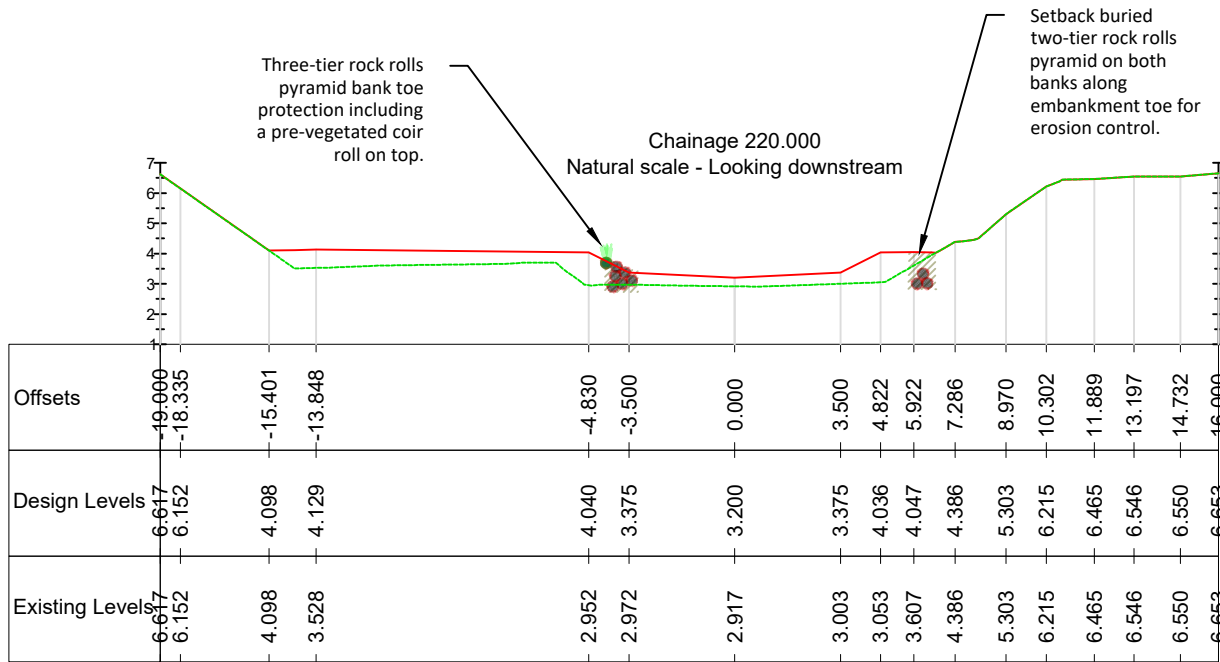
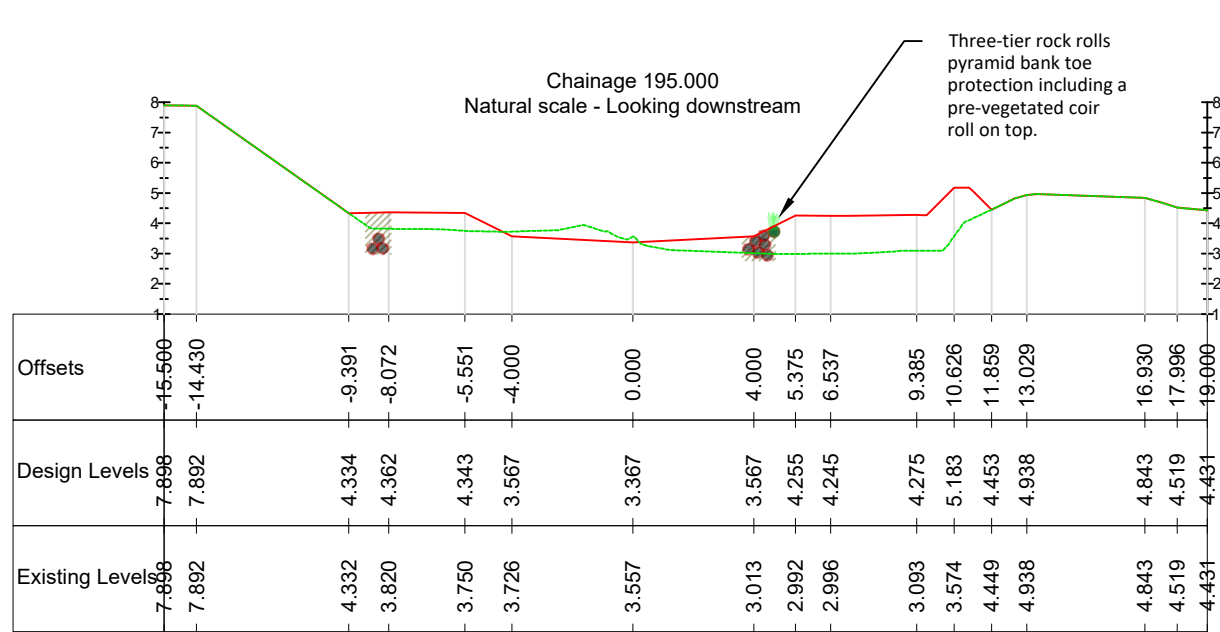
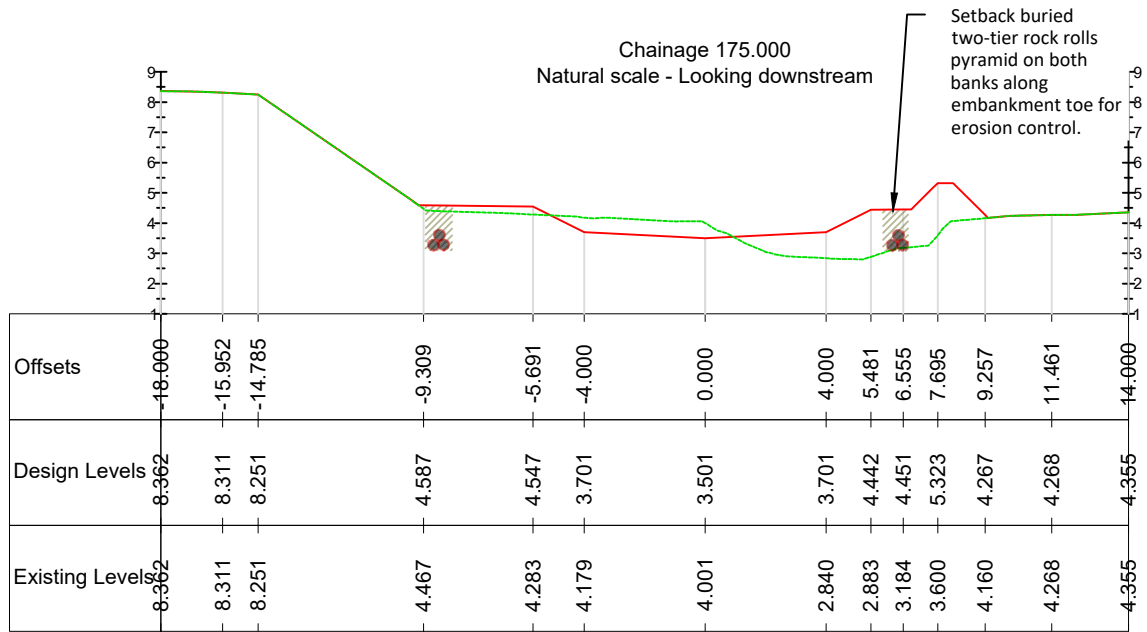
- Existing channels
- Existing concrete bed protection
- Potential buried utilities
- Inferred buried pipes
- Existing pipes
- Proposed Design
 - New realigned channel
 - Inset floodplain
 - Earth bund
 - Restored floodplain
 - Step-pool section 12
 - Rock rolls pyramid toe protection
 - Coir rolls
 - Rock mattress bank protection



Project Number	2150651
Project Title	Applecross Remedial Designs
Drawing Title	DESIGN LONG PROFILE
Scale @ A3	1:1,000
Drawn	JI
Date	17/09/2025
Version	Rev4 v4
Designed	GS
Checked	--
Approved	--



Drawing Number
2150651_DWG_02



SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risk normally associated with the types of work detailed on this drawing, note the following risks and information.

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CONSTRUCTION

- * Working in close proximity to deep water environments.
- * Disturbing or striking existing utilities and services.
- * Saturated ground conditions.
- * Protected species.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

LEGEND

- Existing levels
- Proposed levels

Project Number: 2150651

Project Title: **Applecross Remedial Designs**

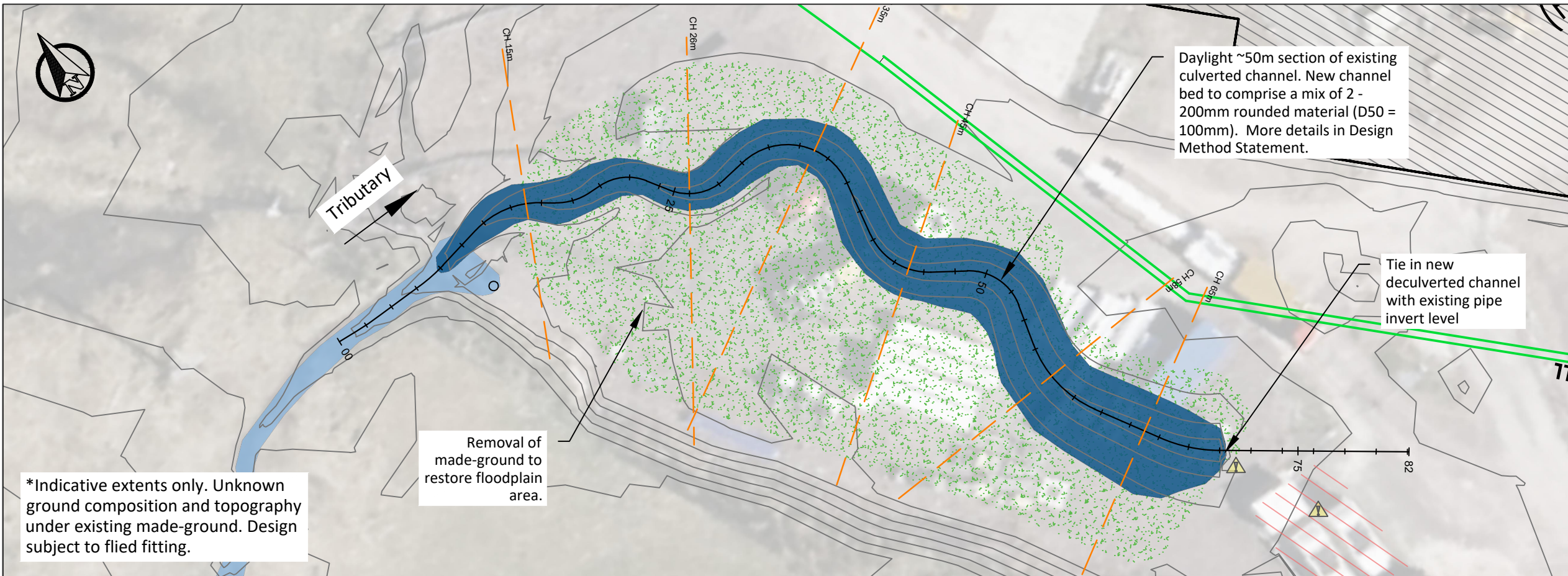
Drawing Title: **DESIGN CROSS SECTIONS**

Scale @ A3: 1:200
OSGB36 / British National Grid

Drawn	Date	Version
JL	17/09/2025	Rev4 v4
Designed	Checked	Approved
GS	--	--



Drawing Number: **2150651_DWG_04**



SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risk normally associated with the types of work detailed on this drawing, note the following risks and information.

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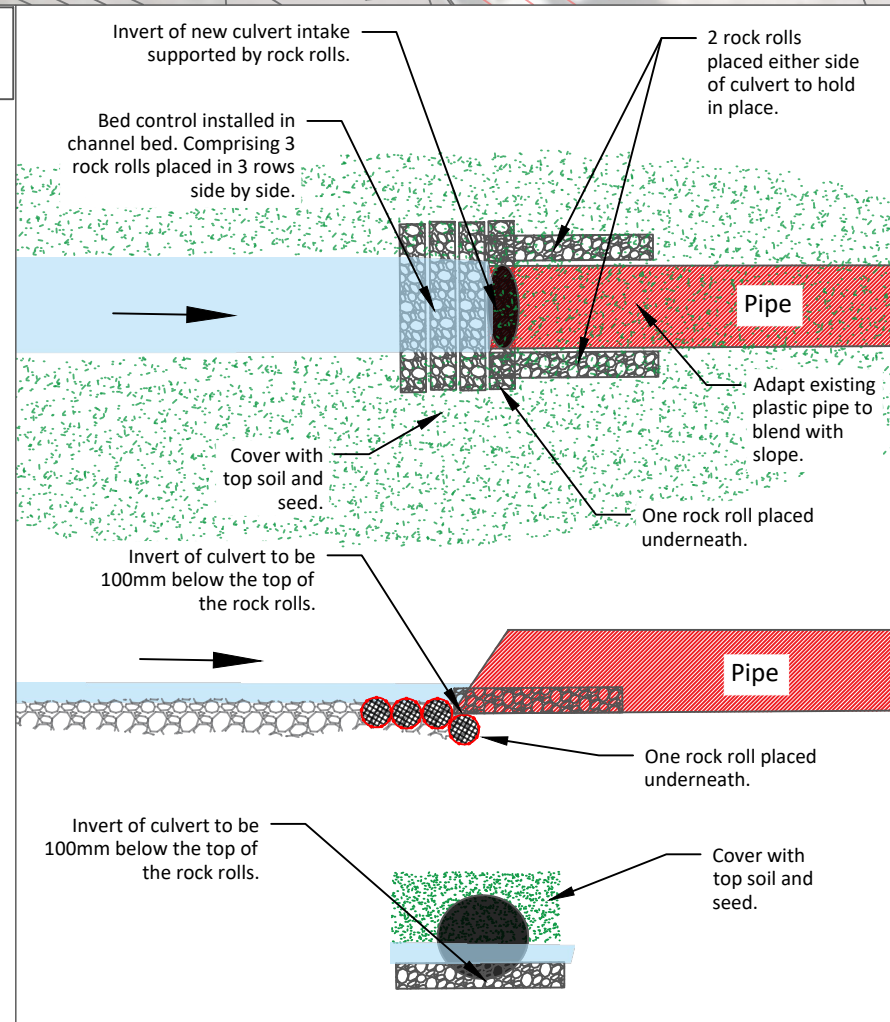
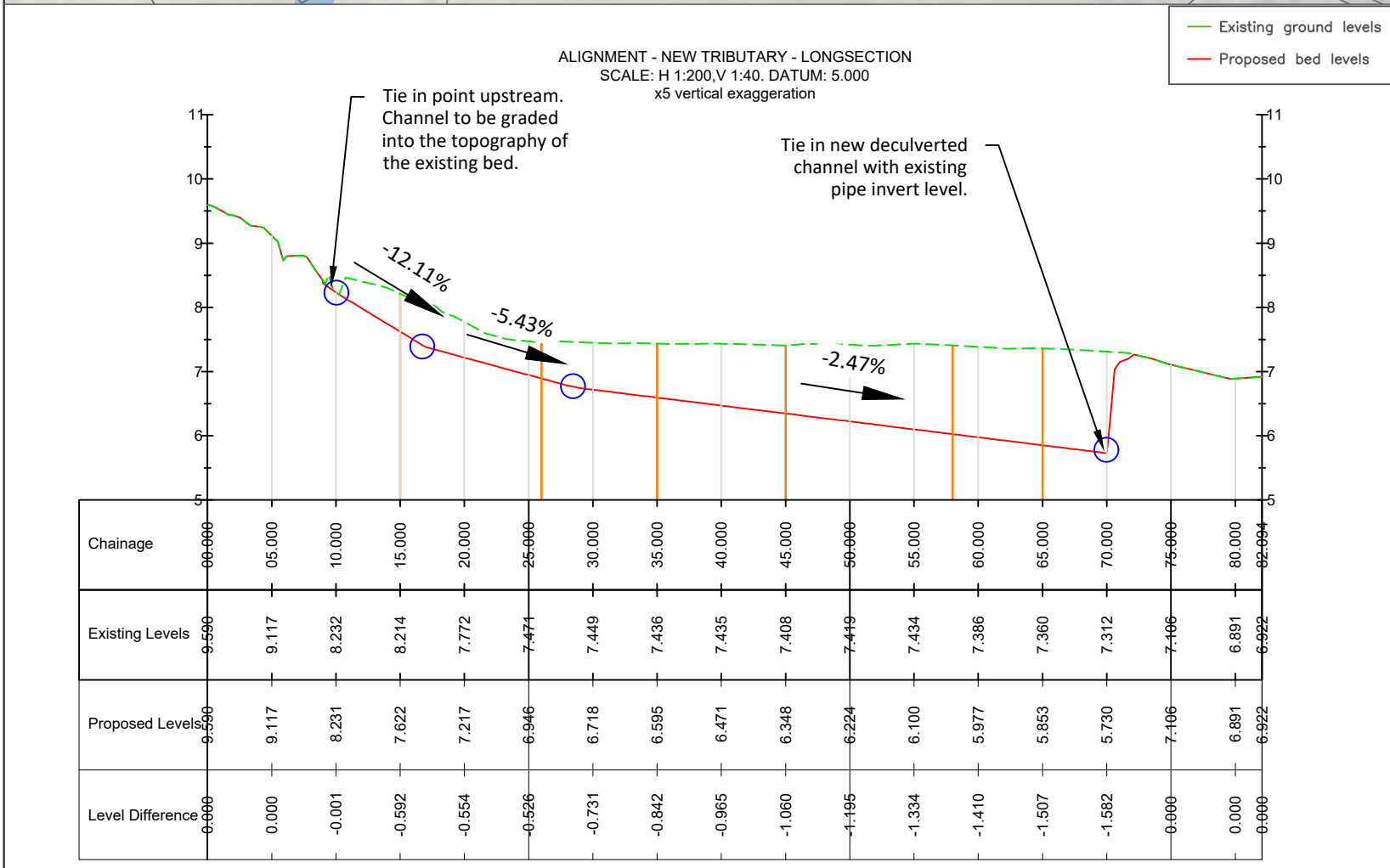
CONSTRUCTION

- * Working in close proximity to deep water environments.
- * Disturbing or striking existing utilities and services.
- * Saturated ground conditions.
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LEGEND

- Existing channels
- Existing concrete bed protection
- Potential buried utilities
- Inferred buried pipes
- Existing pipes
- Proposed Design
 - New realigned channel
 - Inset floodplain
 - Earth bund
 - Restored floodplain
 - Step-pool section 12
 - Rock rolls pyramid toe protection
 - Coir rolls
 - Rock mattress bank protection



Project Number	2150651	
Project Title	Applecross Remedial Designs	
Drawing Title	DESIGN TRIBUTARY - PROFILE	
Scale @ A3	1:300	
Drawn	Date	Version
JL	17/09/2025	Rev4 v4
Designed	Checked	Approved
GS	--	--
Drawing Number	2150651_DWG_05	

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

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LEGEND

- Existing levels
- Proposed levels

Project Number: 2150651

Project Title: **Applecross Remedial Designs**

Drawing Title: **DESIGN TRIBUTARY - SECTIONS**

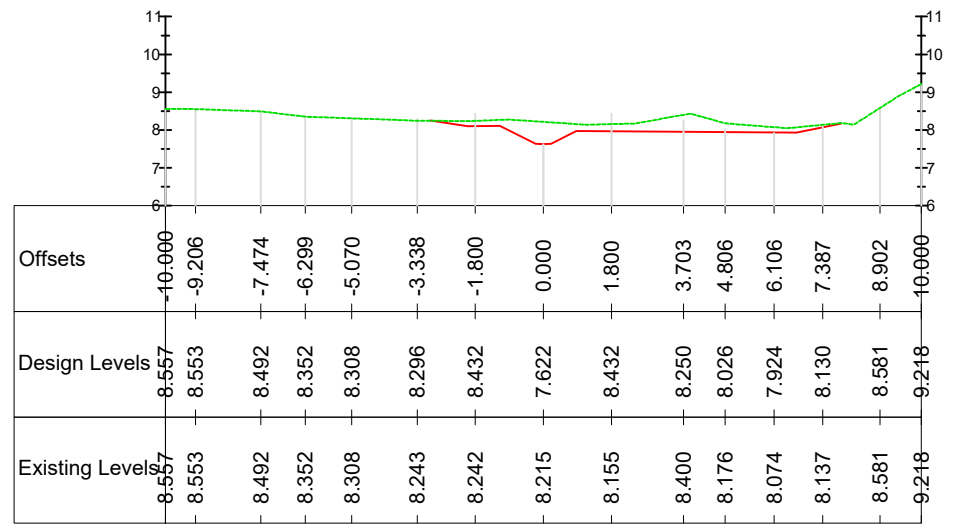
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 OSGB36 / British National Grid

Drawn	Date	Version
Jl	17/09/2025	Rev4 v4
Designed	Checked	Approved
GS	--	--

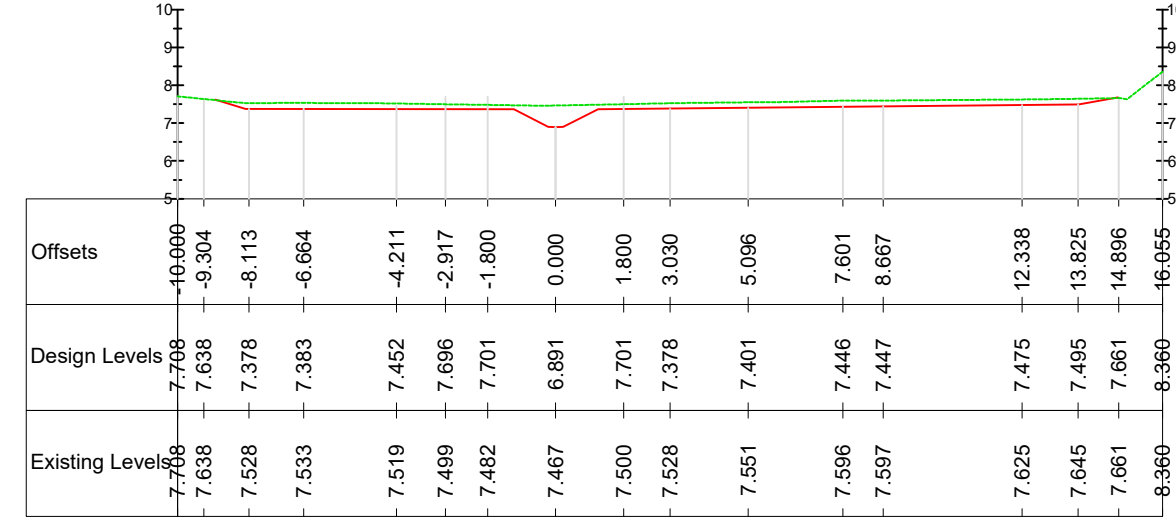


Drawing Number: **2150651_DWG_06**

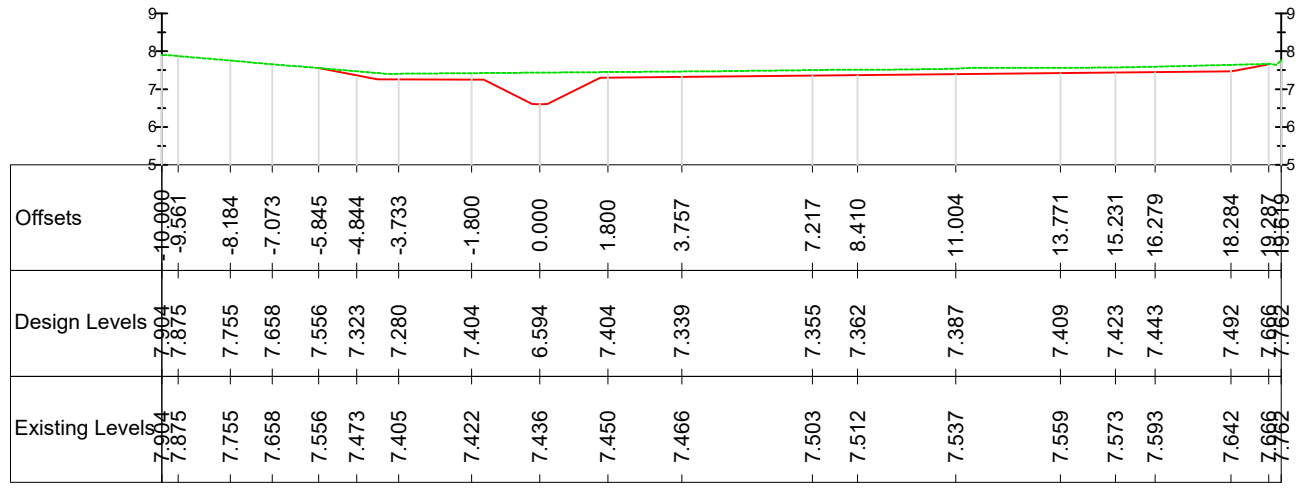
Chainage 15.000
Natural scale - Looking downstream



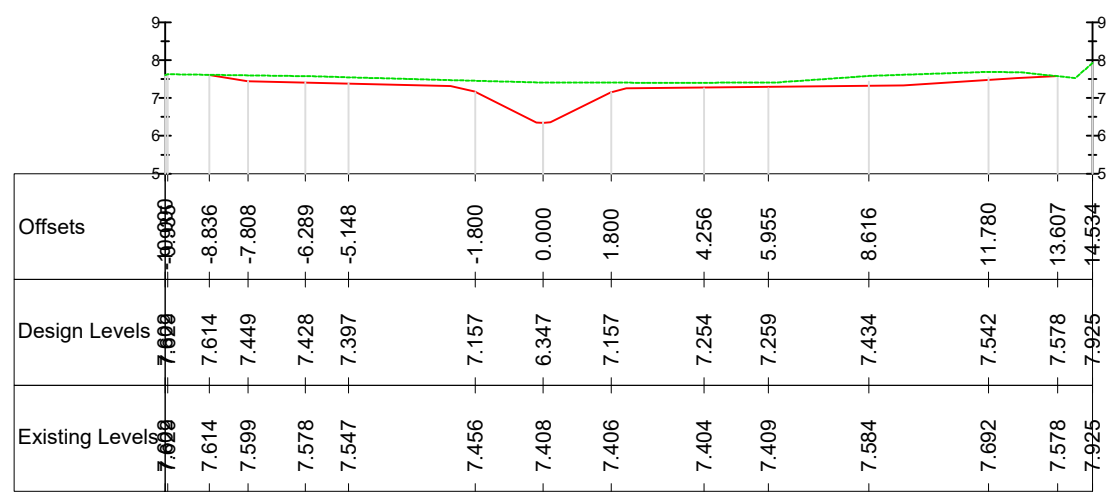
Chainage 26.000
Natural scale - Looking downstream



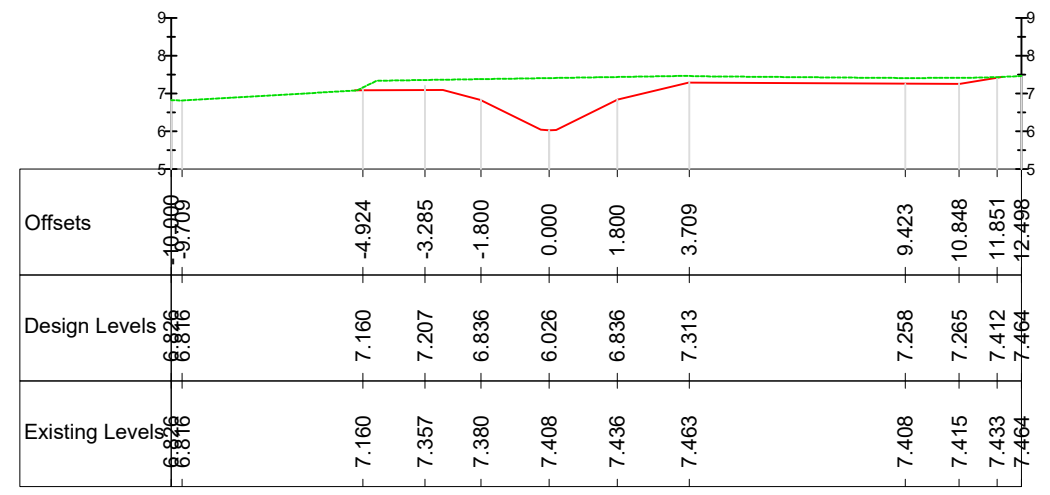
Chainage 35.000
Natural scale - Looking downstream



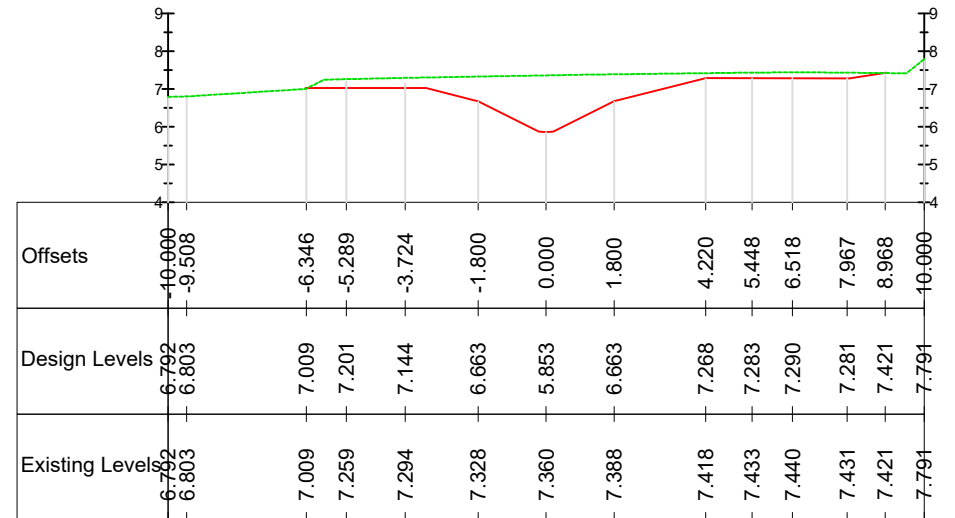
Chainage 45.000
Natural scale - Looking downstream



Chainage 58.000
Natural scale - Looking downstream



Chainage 65.000
Natural scale - Looking downstream





Tie in point upstream. Channel to be graded into the topography of the existing bed to ensure that the implemented works do not produce any abrupt breaks in slope in the river bed (i.e. that could provide the initiation of incision/ head-cut processes).

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Step-pool channel section including rock toe protection.

Replace existing rock armour hard bank protection upstream of the bridge with rock rolls and rock mattress.

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Tie in new deculverted channel with existing pipe invert level

Small bund to prevent flooding on river right at higher flows.

Raised bed control structure to be incorporated into the new channel.

Culvert outfall to be integrated into the new channel design. Add 100mm alluvial gravel cobble sized material on concrete bed of culvert outfall.

CUT FILL ANALYSIS

█	-1.5m to -1m
█	-1m to -0.5m
█	-0.5m to -0.25m
█	-0.25m to 0
█	0 to 0.25m
█	0.25m to 0.5m
█	0.5m to 1m
█	1m to 1.5m

CUT = -920m³
 FILL = +1,480m³
 NET = +560m³ [FILL]

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

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LEGEND

█	Existing channels
█	Existing concrete bed protection
█	Potential buried utilities
█	Inferred buried pipes
---	Existing pipes
Proposed Design	
█	New realigned channel
█	Inset floodplain
█	Earth bund
█	Restored floodplain
○	Step-pool section 12
█	Rock rolls pyramid toe protection
█	Coir rolls
█	Rock mattress bank protection

Project Number: 2150651

Project Title: Applecross Remedial Designs

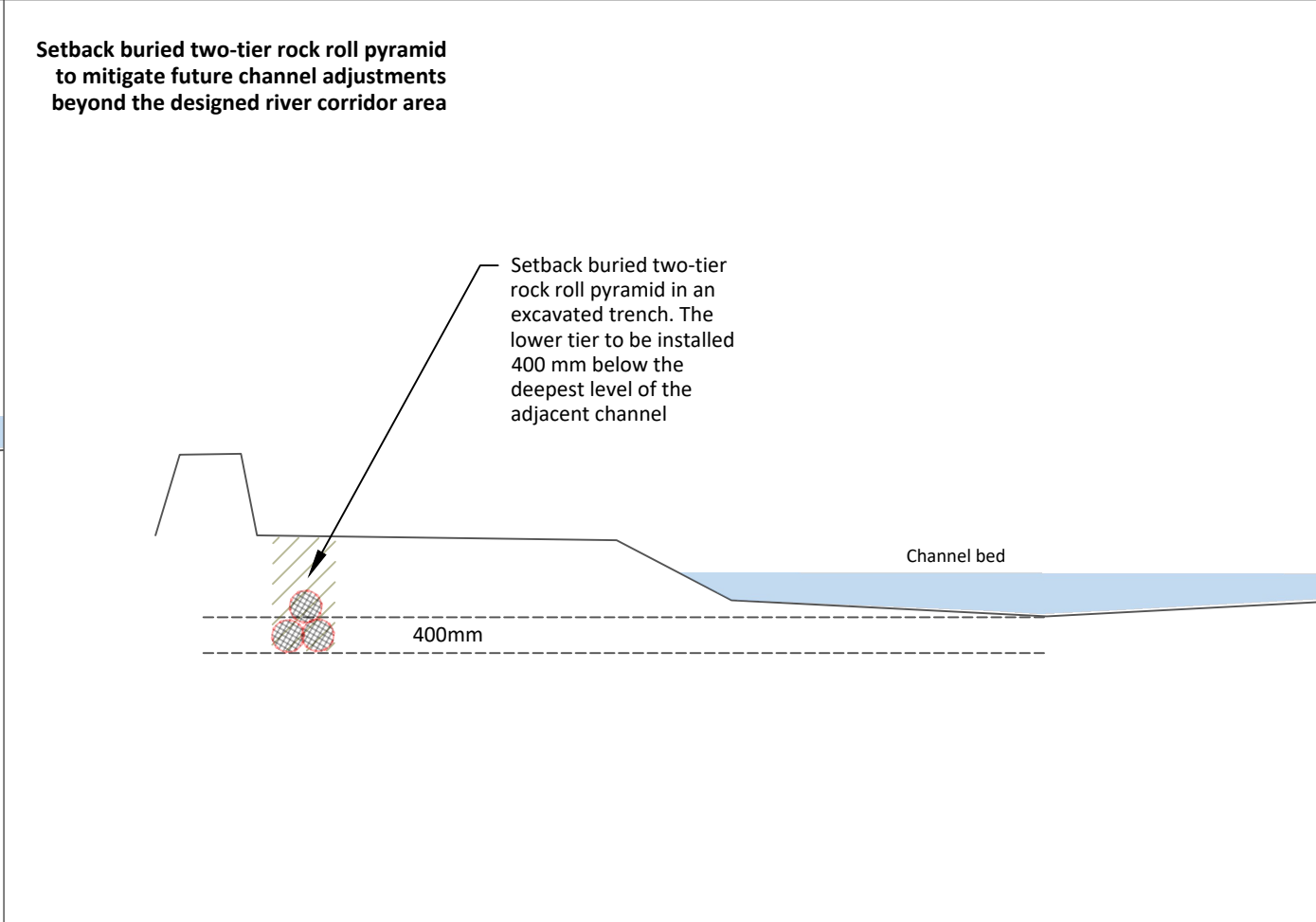
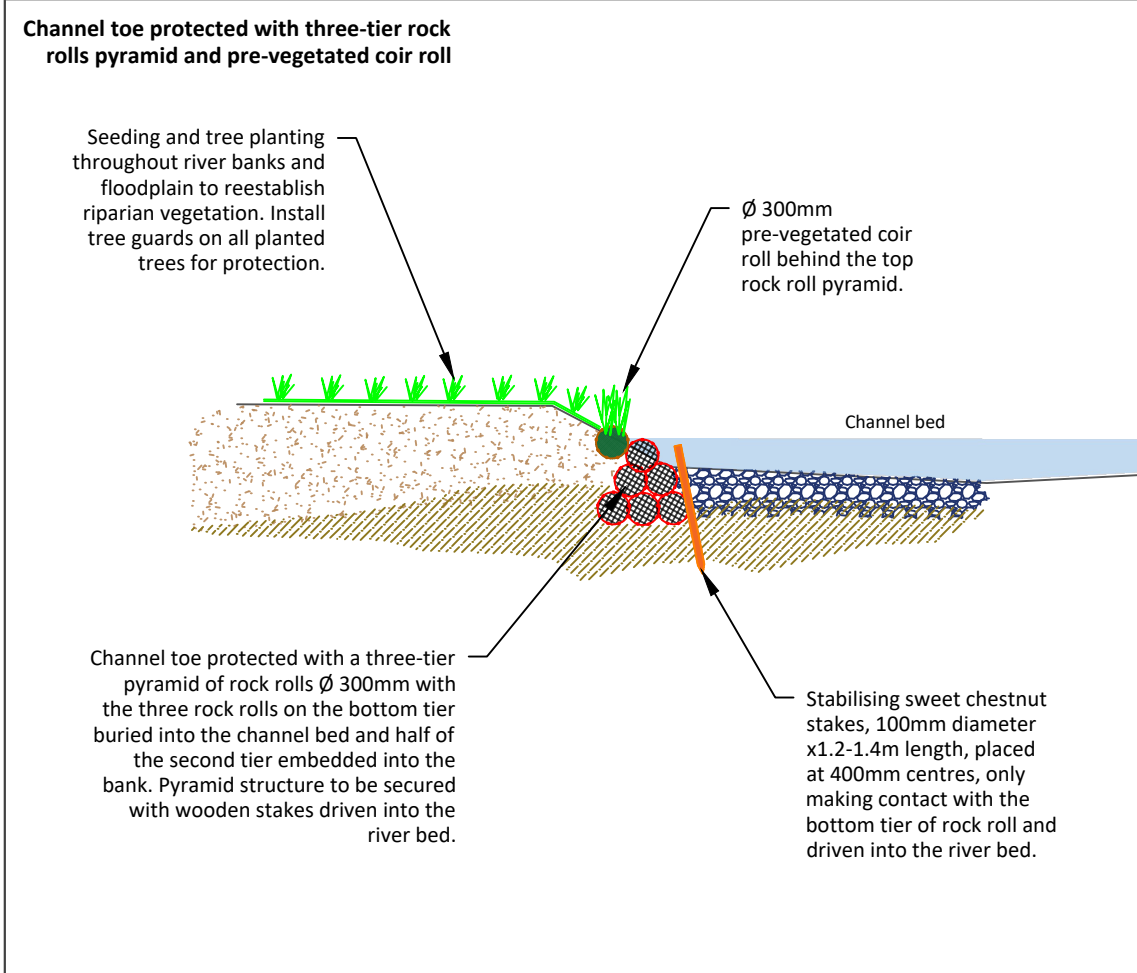
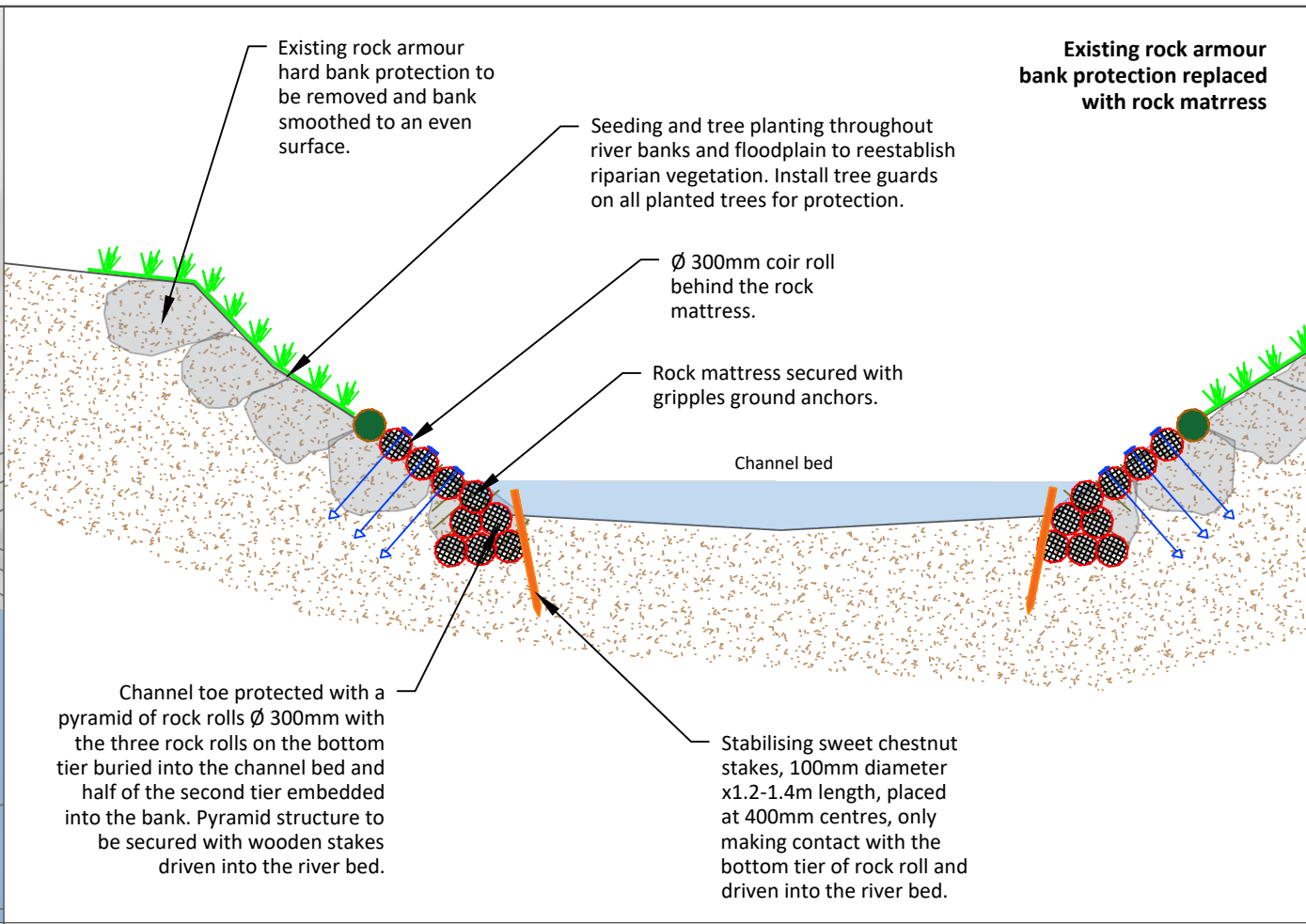
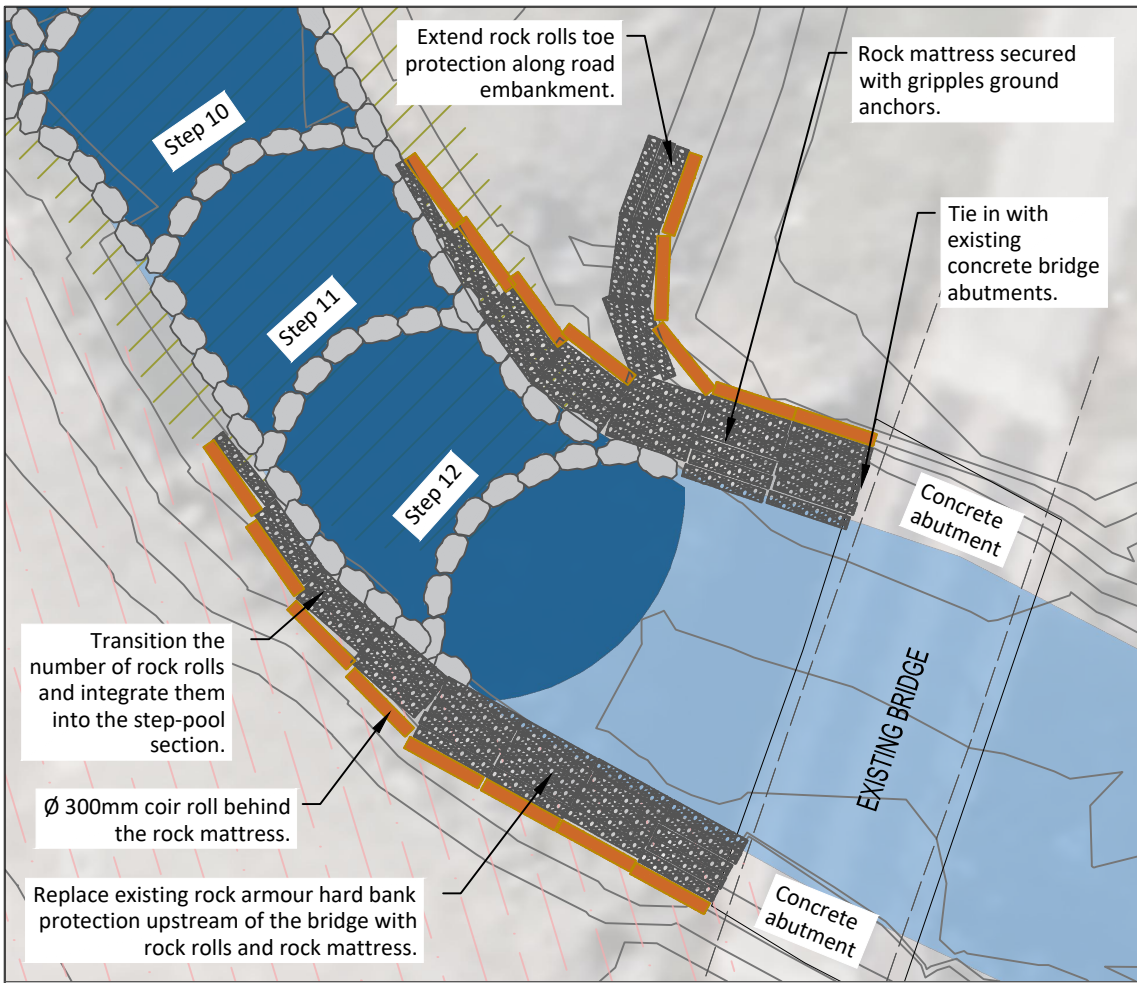
Drawing Title: DESIGN CUT FILL ANALYSIS

Scale @ A3: 1:1,000
 OSGB36 / British National Grid

Drawn	Date	Version
JL	17/09/2025	Rev4 v4
Designed	Checked	Approved
GS	--	--



Drawing Number: 2150651_DWG_07



SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

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LEGEND

Project Number 2150651

Project Title
Applecross Remedial Designs

Drawing Title
DESIGN BANK PROTECTION

Scale @ A3
-- OSGB36 / British National Grid

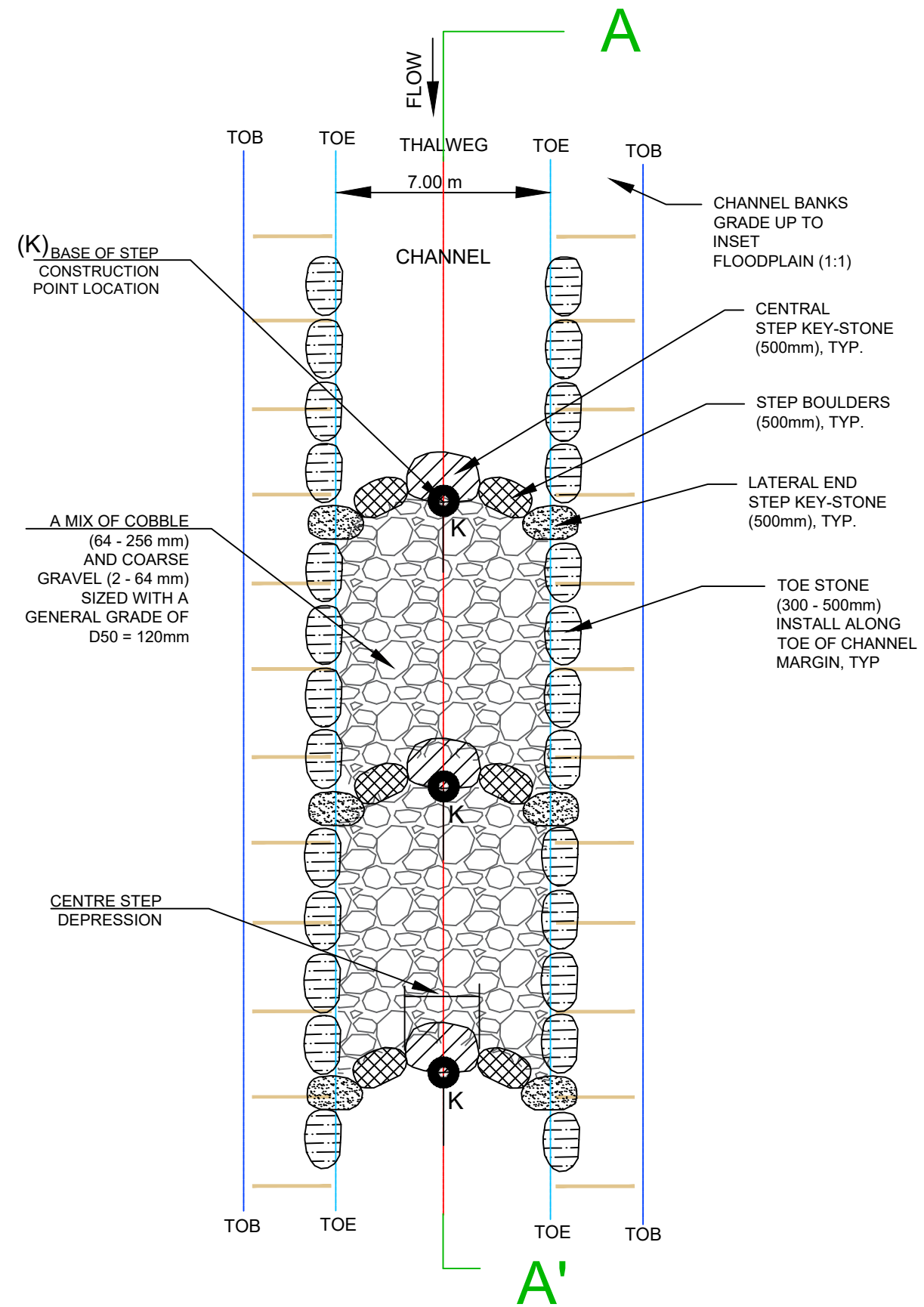
Drawn	Date	Version
Jl	17/09/2025	Rev4 v4
Designed	Checked	Approved
GS	--	--



Drawing Number
2150651_DWG_08

1 STEP CONSTRUCTION PLAN

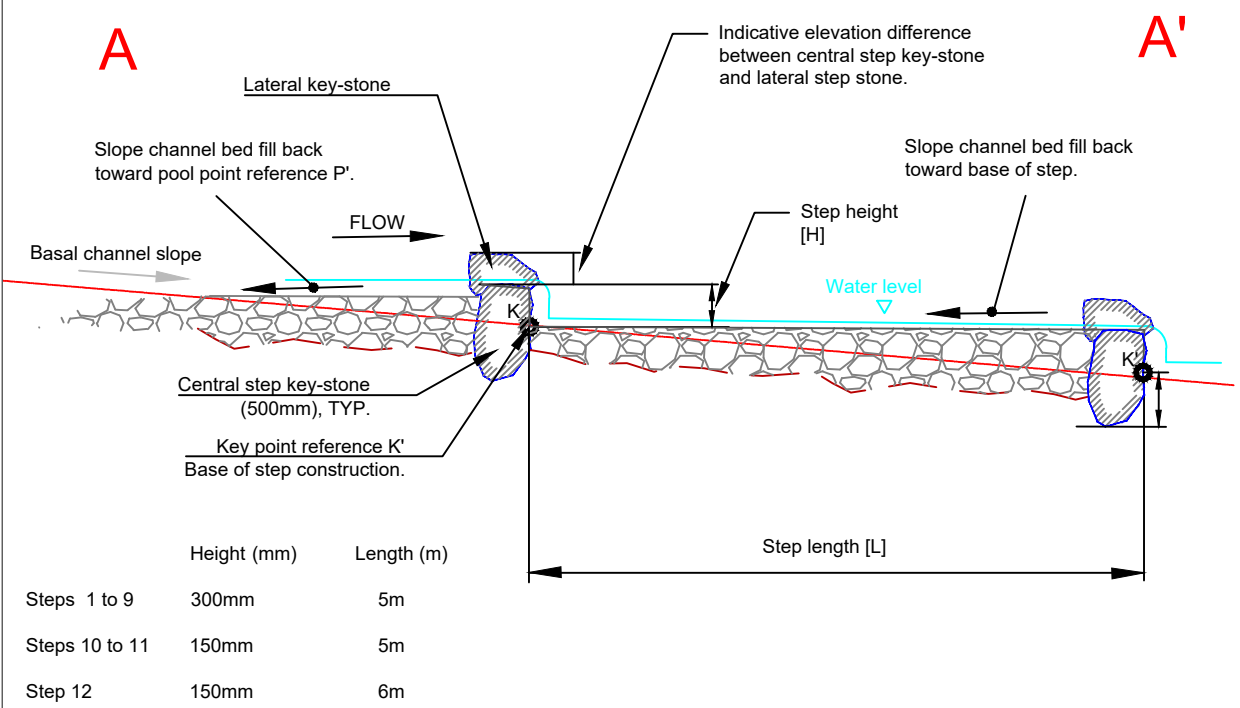
N.T.S.



* DRAWING NOT TO SCALE

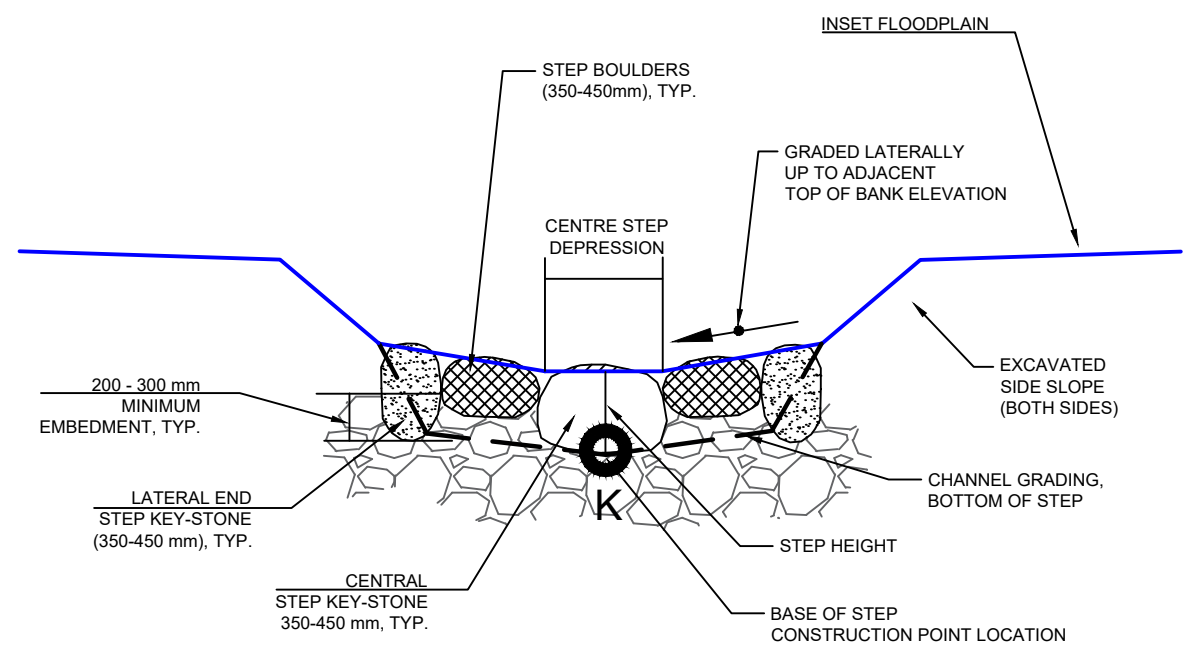
A TYPICAL STEP PROFILE

N.T.S.



B TYPICAL STEP CROSS SECTION

N.T.S.



SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

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LEGEND

Project Number: 2150651

Project Title: Applecross Remedial Designs

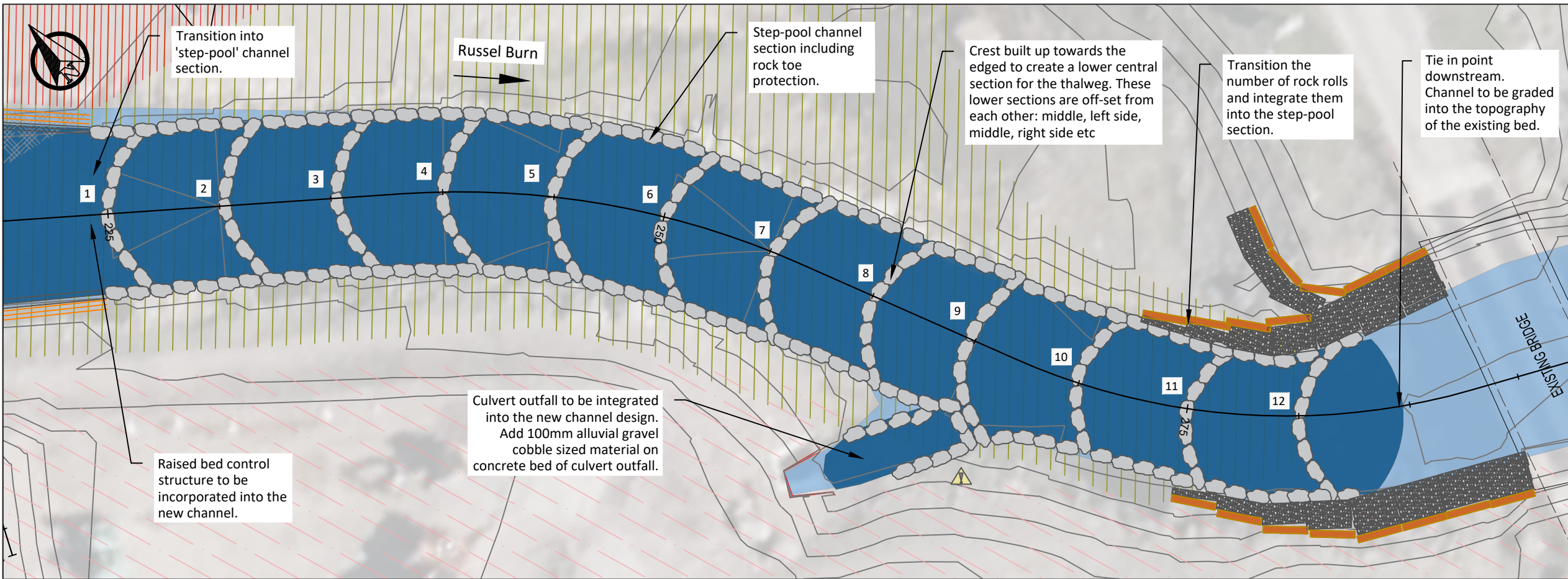
Drawing Title: DESIGN STEPS DETAILS

Scale @ A3: OSGB36 / British National Grid

Drawn	Date	Version
Jl	17/09/2025	Rev4 v4
Designed	Checked	Approved
GS	--	--



Drawing Number: 2150651_DWG_09



SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

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- * Protected species.

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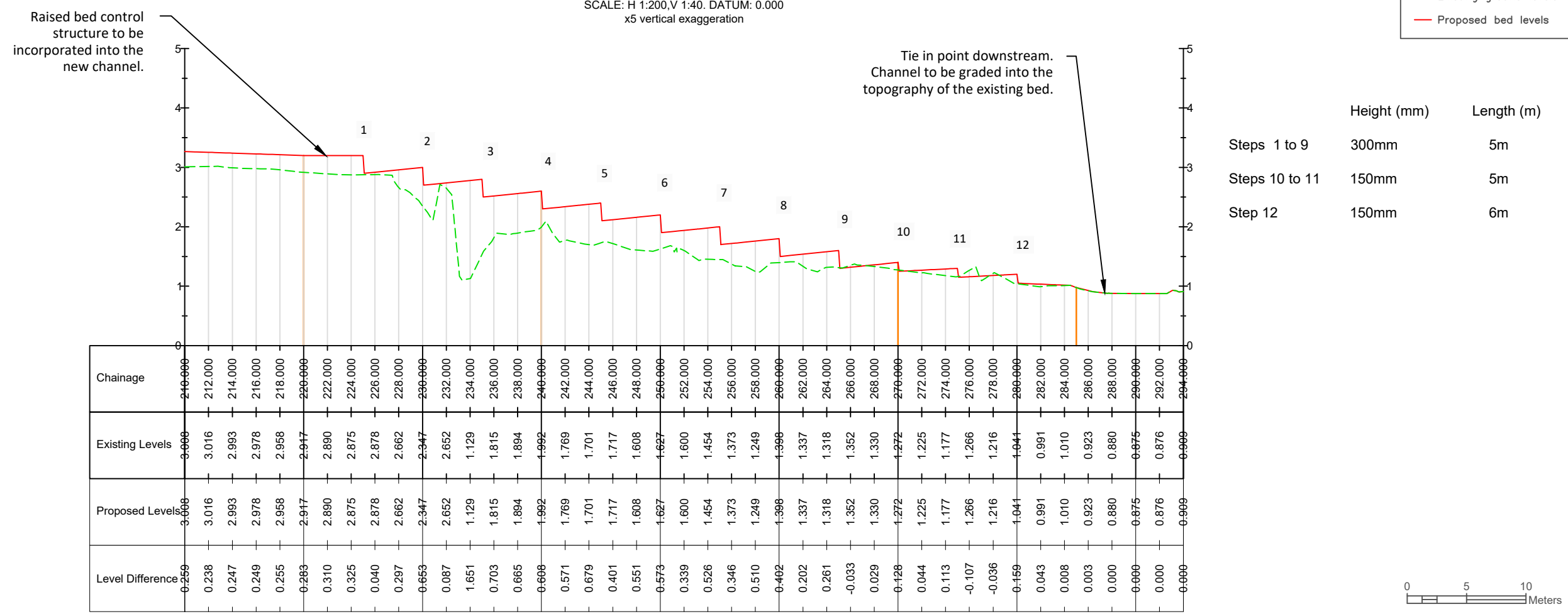
LEGEND

- Existing channels
- Existing concrete bed protection
- Potential buried utilities
- Inferred buried pipes
- Existing pipes

Proposed Design

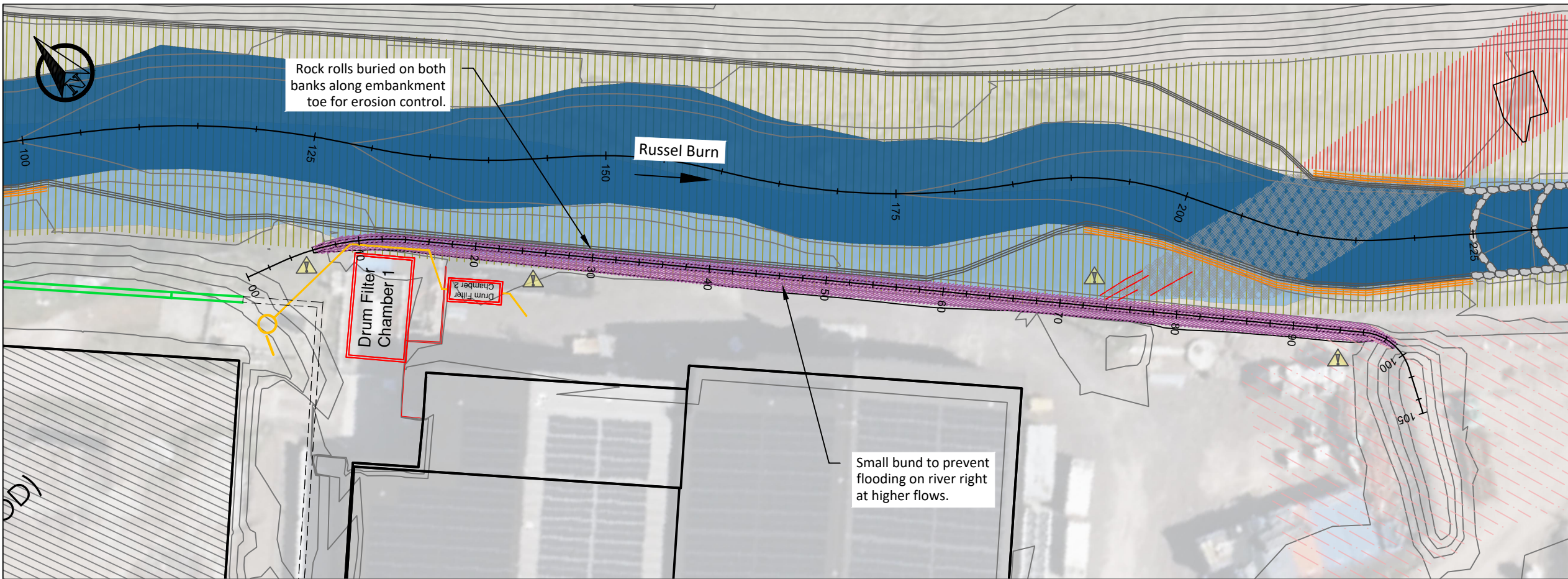
- New realigned channel
- Inset floodplain
- Earth bund
- Restored floodplain
- Step-pool section 12
- Rock rolls pyramid toe protection
- Coir rolls
- Rock mattress bank protection

ALIGNMENT - DESIGN CHANNEL V1 - LONGSECTION (1)
 SCALE: H 1:200, V 1:40. DATUM: 0.000
 x5 vertical exaggeration



Project Number	2150651	
Project Title	Applecross Remedial Designs	
Drawing Title	DESIGN STEPS - PROFILE	
Scale @ A3	1:200	
OSGB36 / British National Grid	0 2.5 5 Meters	
Drawn	Date	Version
JI	17/09/2025	Rev4 v4
Designed	Checked	Approved
GS	--	--

Drawing Number
2150651_DWG_10



SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

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CONSTRUCTION

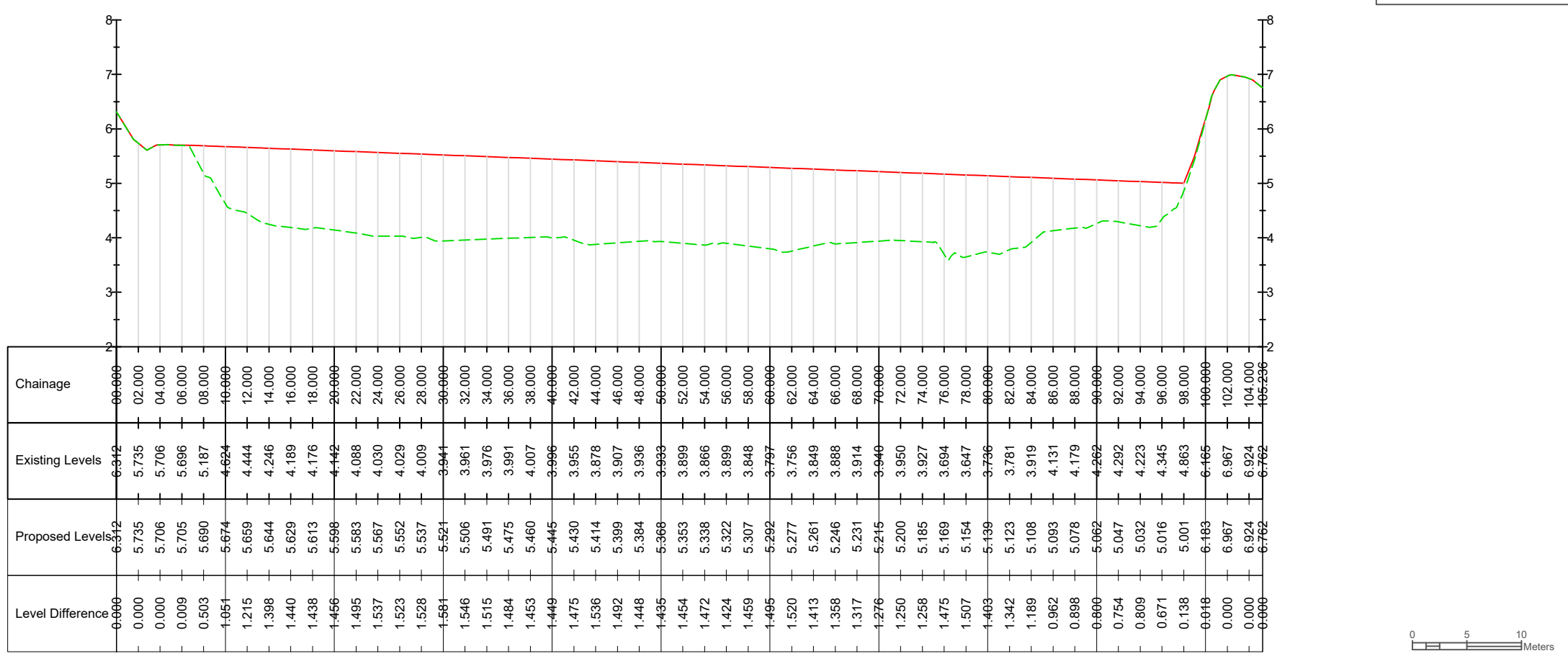
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- * Saturated ground conditions.
- * Protected species.

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LEGEND

- Existing channels
- Existing concrete bed protection
- Potential buried utilities
- Inferred buried pipes
- Existing pipes
- Proposed Design
 - New realigned channel
 - Inset floodplain
 - Earth bund
 - Restored floodplain
 - Step-pool section 12
 - Rock rolls pyramid toe protection
 - Coir rolls
 - Rock mattress bank protection

ALIGNMENT - BUND - LONGSECTION
 SCALE: H 1:200, V 1:40. DATUM: 2.000
 x5 vertical exaggeration



Project Number	2150651	
Project Title	Applecross Remedial Designs	
Drawing Title	DESIGN BUND - LONG PROFILE	
Scale @ A3	1:400	
	 OSGB36 / British National Grid	
Drawn	Date	Version
Jl	17/09/2025	Rev4 v4
Designed	Checked	Approved
GS	--	--
Drawing Number	2150651_DWG_11	

