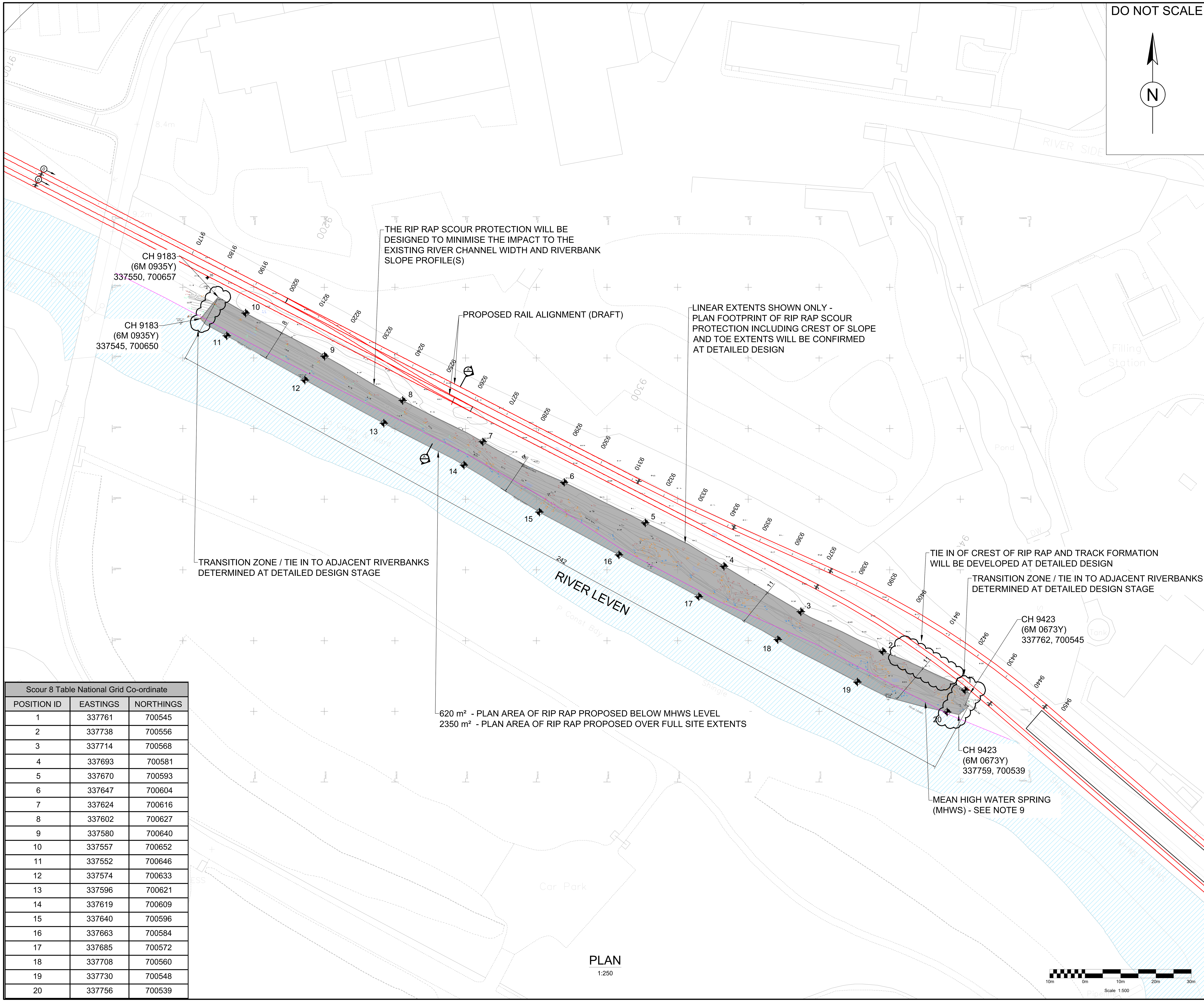


Scour 8 Table National Grid Co-ordinate		
POSITION ID	EASTINGS	NORTHINGS
1	337761	700545
2	337738	700556
3	337714	700568
4	337693	700581
5	337670	700593
6	337647	700604
7	337624	700616
8	337602	700627
9	337580	700640
10	337557	700652
11	337552	700646
12	337574	700633
13	337596	700621
14	337619	700609
15	337640	700596
16	337663	700584
17	337685	700572
18	337708	700560
19	337730	700548
20	337756	700539

NOTES

1 THE PURPOSE OF THIS DRAWING IS TO PRESENT THE INDICATIVE RIVERBANK SCOUR AND EROSION PROTECTION SOLUTION TO INFORM APPLICABLE LICENSING AND LEGISLATORY REQUIREMENTS.THIS DRAWING AND THE ACCOMPANYING TYPICAL CROSS SECTION A-A, ARE TO BE CONSIDERED INDICATIVE ONLY.

2 THESE DO NOT COMPRISE DETAILED DESIGN DRAWINGS.

3 DO NOT SCALE FROM THESE DRAWINGS.

4 RIP RAP STONE REVETMENT OF 300MM DIAMETER (Dn50) LOCALLY SOURCED QUARRIED STONE FILL DEPOSITED, BENCHED AND KEYED IN AT THE RIVERBANK TOE FORMS THE PROPOSED RIVERBANK SCOUR AND EROSION PROTECTION ACROSS THE EXTENTS IDENTIFIED HEREIN AND AS SHOWN WITHIN TYPICAL CROSS SECTION A-A. THIS WILL BE FORMED BY LOCAL REMOVAL OF THE EXISTING RIVERBANK, INCLUDING ANY LOOSE SOIL DEPOSITS AND VEGETATION, AND CONSTRUCTED IN A MANNER SYMPATHETIC TO THE EXISTING RIVERBANK VERTICAL AND HORIZONTAL PROFILE. INDICATIVELY AT 1V:1.5H.

6 THE STONE REVETMENT IN ITS ENTIRETY IS TO BE UNDERLAIN BY A SUITABLE PERMEABLE GEOTEXTILE MEMBRANE (FILTER SEPARATOR) WHICH WILL PROTECT AGAINST ANY LOSS OF ANY FINES MATERIAL OF THE NATURAL RIVERBANK AND BED MATERIAL UNDERLYING THE STONE REVEMENT.

7 THE STONE REVETMENT AT BOTH THE UP AND DOWN STREAM EXTENTS SHALL BE PROFILED TO SUIT SITE CONDITIONS AND TO ENSURE IT IS NOT RESTRICTIVE TO RIVER WATER FLOWS.

8 TO ALLOW GREENING OF THE STONE REVETMENT AND LESSEN ENVIRONMENTAL IMPACT, A PRE-SEEDED EROSION CONTROL BLANKET WILL COVER THE TOP MOST REVEMENT EXTENTS.

9 MEAN HIGH WATER SPRING LEVEL HAS BEEN DETERMINED BASED ON THE EXTENTS SHOWN IN PLAN ON THE SCOTTISH ENVIRONMENT PROTECTION AGENCY (SEPA) ONLINE PUBLICLY AVAILABLE MAPPING - https://map.sepa.org.uk/ngrtool/

LEGEND:

RIVER LEVEN — MEAN HIGH WATER SPRING

RIP RAP STONE REVETMENT

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

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

CONSTRUCTION

N/A

MAINTENANCE/CLEANING

N/A

DECOMMISSIONING/DEMOLITION

N/A

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

Rev.	Date	Description	By	Chk'd	App'd

Drawing Status: WORK IN PROGRESS — Suitability: S0

ATKINS
220 St. Vincent Street
Glasgow
G2 5SG

Tel: +44 (0)1412 202000
Fax:+44 (0)1412 202001
www.atkinsglobal.com

Client

Project Title: LEVENMOUTH BRANCH

Drawing Title: SCOUR SITE LOCATION 8 GENERAL ARRANGEMENT PLAN DRAWING

Scale	Designed	Drawn	Checked	Authorised
1:500	--	CC	--	--
Original Size	Date	Date	Date	Date
A1	--/--/--	10/12/2021	--/--/--	--/--/--

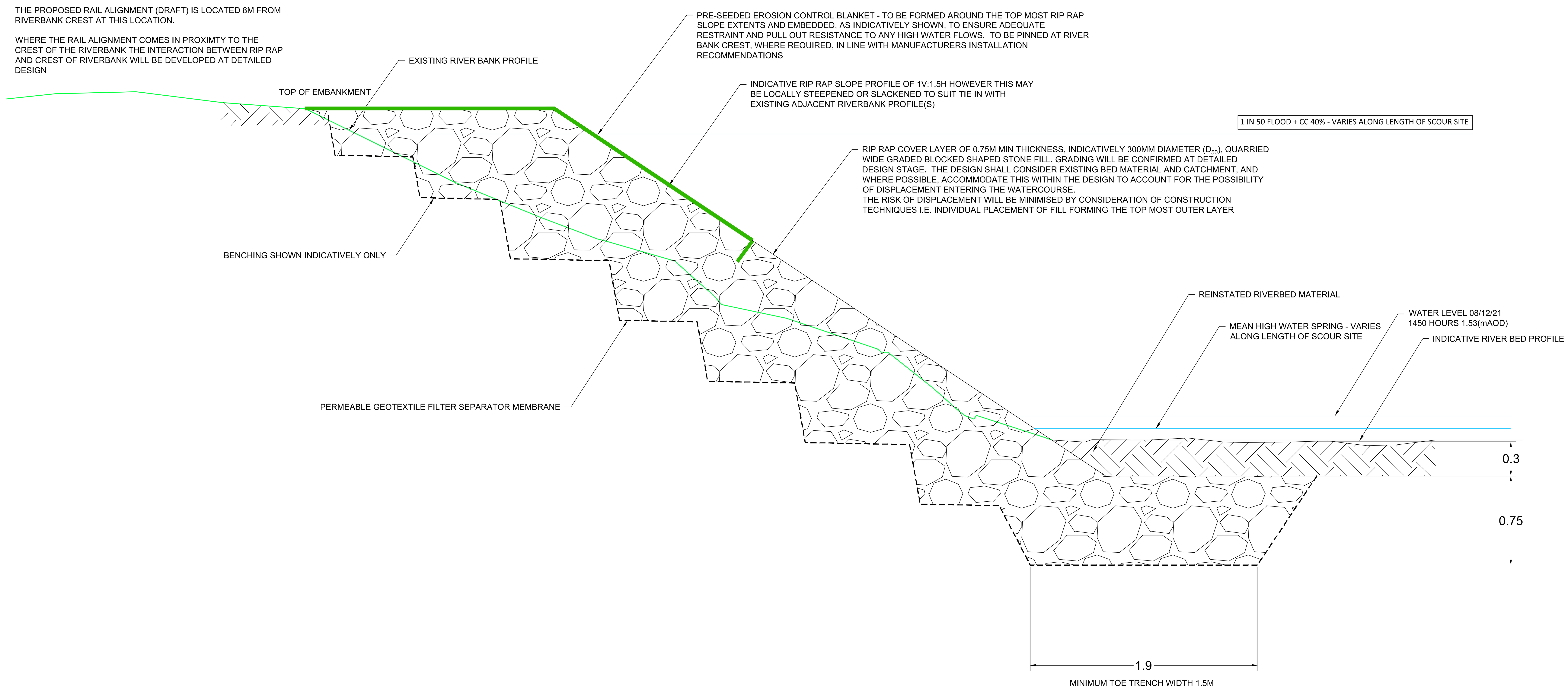
Drawing Number: 161831-ATK-DRG-EGE-000005 — Revision: P01

DO NOT SCALE

NOTES:

1. THIS DRAWING IS TO BE READ INCONJUNCTION WITH DRAWING TITLE 161831-ATK-DRG-EGE-000005
2. THE ARRANGEMENT AND ANY LEVELS SHOWN ARE TO BE CONSIDERED INDICATIVE ONLY. THE DESIGN SOLUTION WILL BE DEVELOPED AT DETAILED DESIGN STAGE.

LEGEND:



RIP RAP STONE REVETMENT TYPICAL CROSS SECTION DETAIL

SECTION A-A

1:20

0.5m 0m 0.5m 1m

Scale 1:20

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

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

CONSTRUCTION

N/A

MAINTENANCE/CLEANING

N/A

DECOMMISSIONING/DEMOLITION

N/A

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

Rev.	Date	Description	By	Chk'd	App'd

Drawing Status: WORK IN PROGRESS

Suitability: S0

ATKINS

220 St. Vincent Street
Glasgow
G2 5SG

Tel: +44 (0)1412 202000
Fax: +44 (0)1412 202001
www.atkinsglobal.com

Client

Project Title

LEVENMOUTH BRANCH

Drawing Title

SCOUR SITE LOCATION 8
TYPICAL CROSS SECTION
A-A'

Scale	Designed	Drawn	Checked	Authorised
1:20	--	CC	--	--
Original Size	Date	Date	Date	Date
A1	--/--/--	10/12/2021	--/--/--	--/--/--

Drawing Number: 161831-ATK-DRG-EGE-000006

Revision: P01

Indicative Method Statement, Levenmouth Reconnected Scour Site 8

General

- All operatives will receive the site safety induction and sign the site safety induction log
- All personnel on the site will receive a task briefing to cover the methodology and health, safety and environmental risks associated with the activities.
- A daily white board briefing will be carried out each day which all site personnel will attend. Any new hazards will be identified at this point.
- A point of work risk assessment and daily briefing will be carried out each day which all operatives will sign to show they have understood the methodology and hazards. Any new hazards will be identified at this point.
- All suppliers to be notified of Traffic Management plan prior to commencement of works.
- A dilapidation photo survey shall be carried out before any works commence.
- All refuelling shall occur in a dedicated area at least 10m away from the watercourse
- All heavy plant operating in or within 10m of the watercourse will run using hydraulic Bio oil.
- All static plant shall be sat over a drip tray which can contain 110% of the fuel tank capacity. This plant shall be positioned at least 10m away from the water
- All waste shall be managed in accordance with the Site Waste Management Plan.
- Clean, check and dry process to be in place and briefed to all personnel and all plant to be cleaned down before coming to site.
- Nesting bird survey to be carried out prior to works commencing.
- All works shall comply with the requirements of the ecology report, Marine Scotland licence.

IMPORTANT INFORMATION REGARDING TIDAL WORKING

- No lone working is permitted at any time in or around the water course.
- Works are in a tidal area and therefore works will be planned accordingly. Any machine works to be carried out with machine within the MHWS footprint are only permitted 3 hours either side of low tide. At all other times, it is expected to be high tide and therefore no machine works are permitted Site supervisors should familiarise themselves with an approved Tide Times information service. These times will dictate working hours and limitations.

Edge protection to be installed for all sections with unprotected slopes adjacent to the work site. This will be temporary installed wooden posts and hand rail, all above MHWS.

De-vegetation

- As part of the works there is a requirement to remove trees and vegetation to allow access and along the working area.
- This work will be carried out by certified operatives.
- Where vegetation clearance (during bird nesting season) is required a bird survey will be carried out prior to the removal of trees. This will be carried out by a qualified ecologist.
- A bat specialist will check the trees in this area for bats/bat roost potential.
- The AMCO supervisor will mark out the extent of the site to be cleared.
- All tree felling work will be carried out by NPTC/Lantra certificated operatives.
- Safety exclusion zones will be set using barrier fencing.
- Full PPE including helmet with visor and ear defenders, boots and gloves to be worn at all times.
- Tree removal will commence at a location agreed location with chainsaw certificated operatives who will directionally cut trees to stump level away from themselves using chainsaws within the site boundary.
- If required, all vegetation and small trees will be processed using chippers. The chips will be discharged to an allocated area and levelled.
- The personnel carrying out these duties must be a trained and competent person.
- All cut vegetation will be stored, if required, prior to chipping and/or disposal, at least 10m form the water course.

Installation of Silt Curtains

Prior to works to install the temporary dam, silt curtains are to be installed downstream of the works.

- 3 No. silt curtains to be installed in a slalom type distribution, such that fish will still be able to navigate up or down the water course.
- No.1 silt curtain to be installed immediately downstream of the work site and to the work site side of the water course.
- No. 2 silt curtain to be installed to the opposite side of the water course, at least 10m further downstream from silt curtain No. 1
- No. 3 silt curtain to be installed a further 10m downstream from sitl curtain 2 but on the same side of silt curtain 1, thus at least 20m directly downstream from silt curtain 1.

Dam installation

Once the silt curtains are installed and sufficient de-vegetation has been completed to allow safe access to the water course the installation of the temporary dam may commence.

- Approved sub-contractors will install aluminium A-frame sections that are linked together to form the basis of the temporary dam.
- These will be placed far enough out into the water course to allow the creation of a dry working area large enough for the safe installation of the rock armour.
- At no point will the dame extend beyond half the width of the water course.
- Once enough A-frame sections have been installed, the dam subcontractor will commence fixing the PVC dam sheet to the A-frame. The bottom sections of the PVC sheet will be held in place by sand bags, filled with clean washed gravel.
- The installation will continue until the required area of damming is completed.

Fish rescue & Overpumping

On completion of the dam installation and prior to any works commencing a fish rescue is to be carried out by Forth Consulting. Once they are satisfied that there are no further fish within the dammed area then overpumping may commence.

- 2No. 6 inch pumps will be used.
- Pumps to be fitted with terram or suitable netting as a precaution against any fish that may have been missed during the rescue being drawn into the pump.
- All pumping to be through a silt-sock at all times and discharge on to sediments positioned in vegetation, where possible, to minimise any silt production.

The rock armour will be installed in accordance with BS EN 13383-1: 2022 and will include a filter layer installed beneath the rock armour, needle punched non-woven geotextile separator membrane, as indicated in permanent materials section 6.

- Marine Licence to be issued prior to AMCOGiffen entering the work area.
- Permit to work near the water to be issued prior to working.
- All permit requirements to be adhered to for duration of the below activity.
- A water monitoring kit shall be obtained from the AMCO Environmental Department and a sample shall be taken and recorded (photographed) by the Site Supervisor.
- Local emergency services, including the coastguard and lifeboat will be advised of the operations.

- All operatives must wear lifejacket and be fully briefed on activities risk and control measures along with the rescue plan.
- Upon completion of the main works, the above methods will be removed in opposite sequence with extra care taken to ensure no sediment is disturbed.
- Visual Inspections will be carried out before, during and after all proposed works and any issues highlighted to AMCO Site Management and works suspended.
- On completion of de-vegetation and any excavation of surface material is completed, the area will be prepared for the geotextile separator membrane to he installed.
- This will be installed and held in place by locally placed individual pieces of rock armour.
- Once the geotextile has been satisfactorily positioned and held in place, installation of the rock armour may commence.

- All work will be carried out under the control of a permit to work on or near water and Marine licence.
- Rock armour will be loaded into dumper and transported to the work site. It will be stockpiled in this location for placement by excavator.
- All plant working within the vicinity of the MHWS will be fitted with bio oil.
- Tidal monitoring will be carried out throughout the duration of the task.
- All plant will be fuelled within this site compound via mobile bowser (No fuelled stored on site – To be brought in as and when required). A spill kit facility will be available at all times. The machines will be stored at site compound at the beach access point overnight or out of site hours.
- An additional Welfare van will be at the main point works by agreement to provide facilities closer to the point of work.
- AT ALL TIMES DURING THE EXECUTION OF THE WORKS DUE COGNISANCE WILL BE TAKEN WITH RESPECT TO PREVAILING WEATHER CONDITIONS TIDE TIMES AND HEIGHTS
- A suitably sized excavator will be located at the point and tipping point of the imported rock armour.
- The imported rock armour will be delivered to site and placed ready for loading by the excavator in 9t dumpers.
- Rock armour stone that meets the specification requirements will be delivered and stockpiled within the site compound.
- Rock armour will be visually inspected to check minimum, maximum and average stone sizes.
- A banksman will always be in attendance whilst the vehicles are reversing and to also direct site personnel and site visitors, whilst the works are being undertaken.
- Two number dumpers (Wheeled) will transport the imported rock armour, above the mean high tide point to the point of works. The cobbles will be

tipped as directed by the second excavator located at the main point of works (sea defences). The site speed limit will be 5 mph.

- If required a second excavator will be located at the point of works..
- The rock armour will be tipped into the prepared area and shaped by excavator, followed by the reinstating of locally excavated material over the placed rock.
- This will be repeated over the area required, working from the furthest end back toward the access point over the required area.
- On completion of the rock armour placing the haul route will be reinstated along with any other areas disturbed as a result of the works.
- Once suitably large enough areas of the rock armour have been installed satisfactorily, the pre-seeded erosion control blanket will be installed.
- Erosion control blanket to be held in place by biodegradable timber stakes.
- Sections of the erosion control blanket will be rolled into place as the rock armour installation ahead of it is approved as being satisfactorily installed.
- Following an inspection by the Site Supervisor or Agent and /or representative and an agreement the work has been satisfactorily completed, demobilisation will commence.