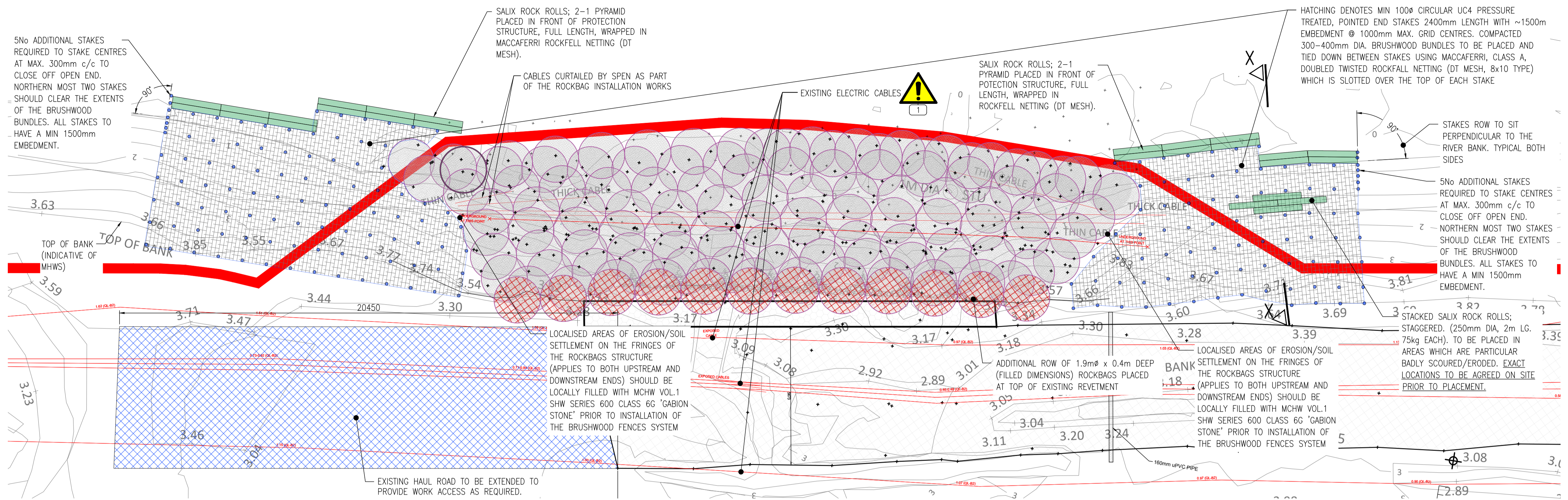


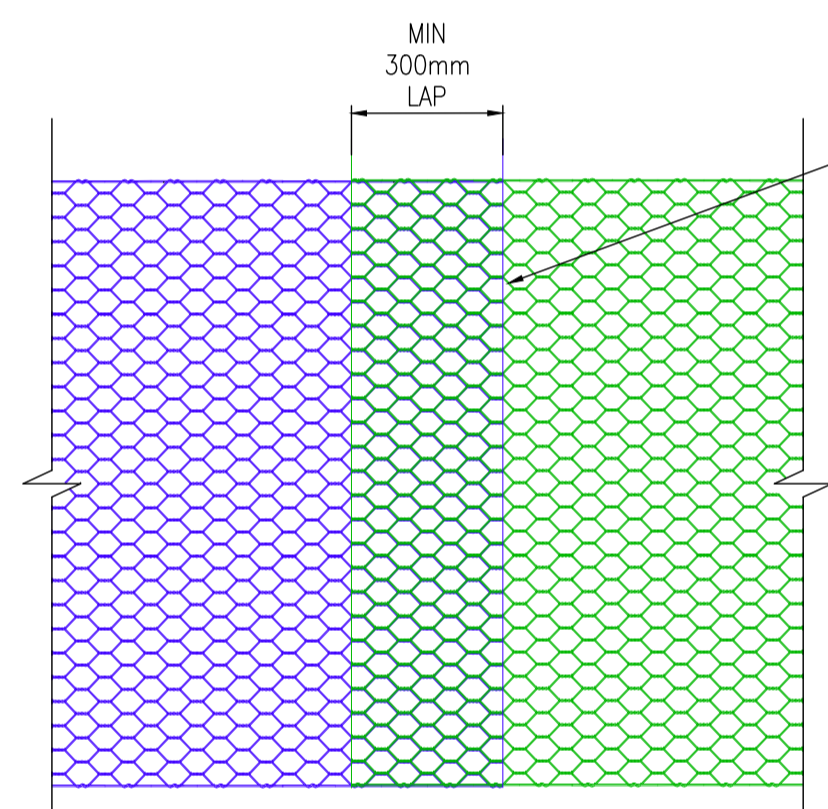
# **Appendix G: Detailed Design Drawing 20266-1007-0**



THIS IS A CAD PRODUCED DRAWING AND SHOULD NOT BE MANUALLY UPDATED



**PLAN INDICATING PERMANENT ANTI-SCOUR PROTECTION MEASURES**  
SCALE 1:100

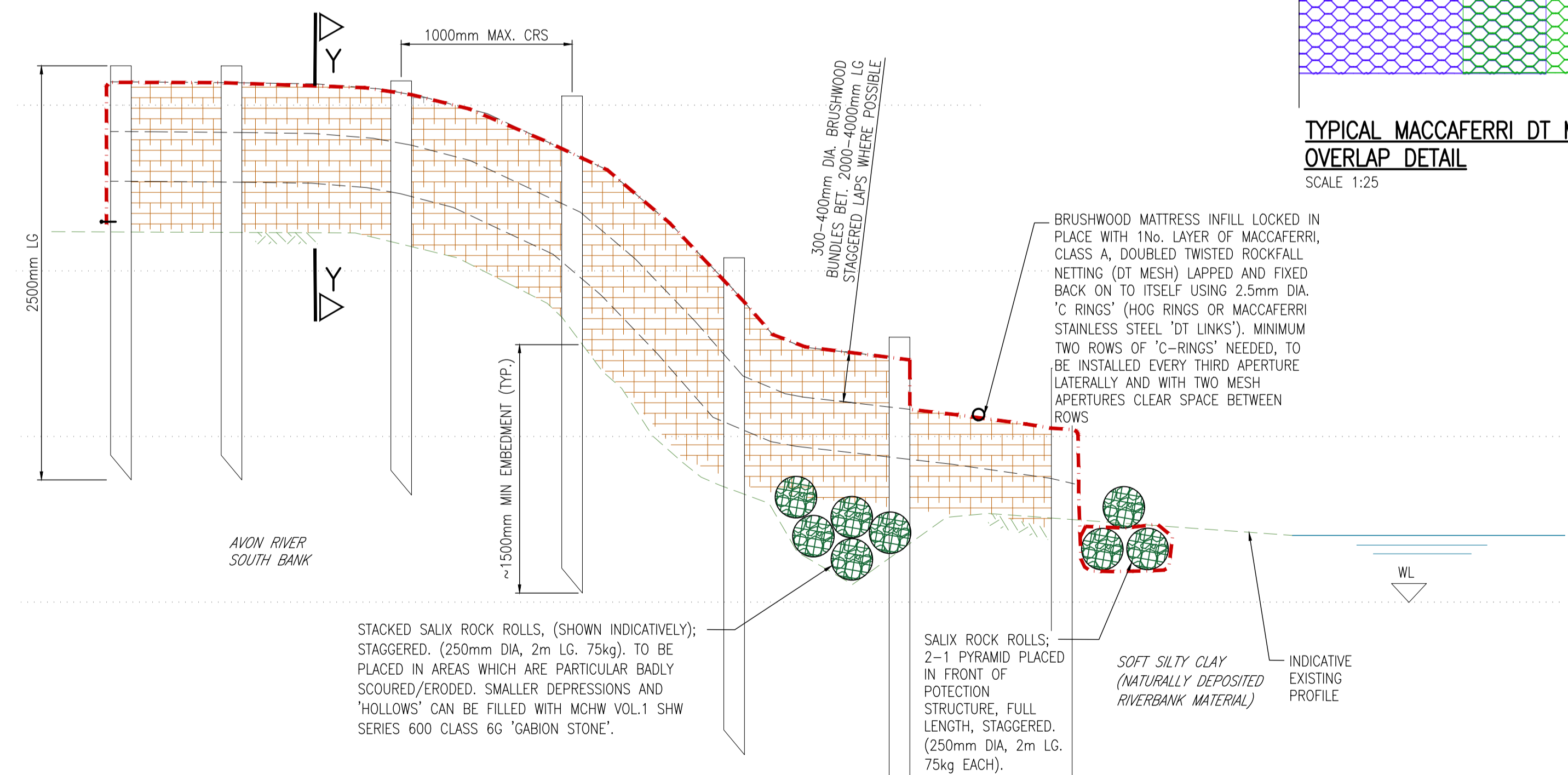


**TYPICAL MACCAFERRI DT MESH PANELS OVERLAP DETAIL**  
SCALE 1:25

**ESTIMATED MATERIAL IMPORT & EXPORT QUANTITIES:**

THE FOLLOWING IMPORT AND SITE GENERATED MATERIAL QUANTITIES ARE EXPECTED TO APPLY TO THE CONSTRUCTION OF THE HAUL ROAD.

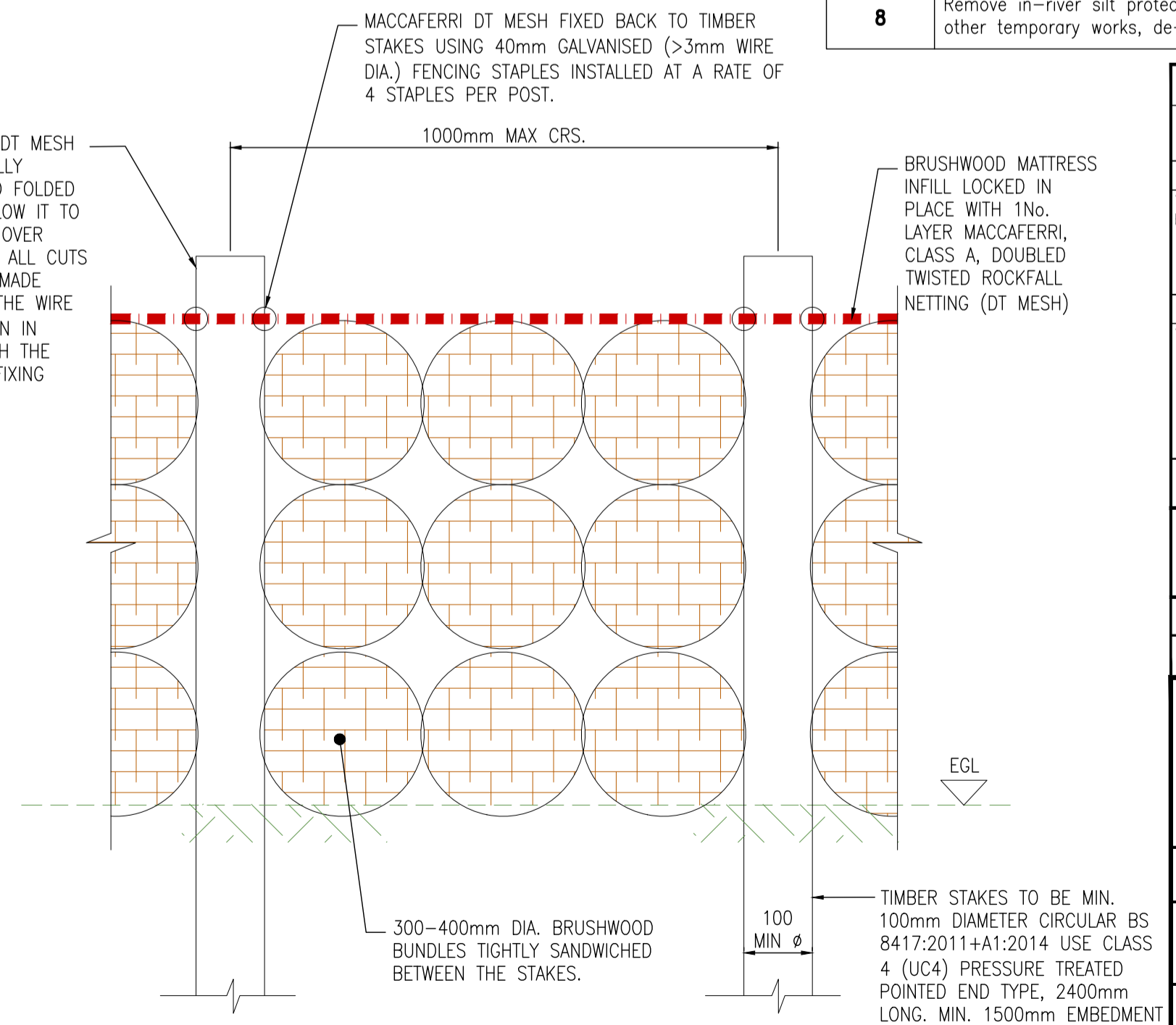
IMPORT MATERIALS			
MATERIAL DESCRIPTION	VOLUME (m³)	EQUIVALENT MASS (TONNES)	NOTES
SHW Series 600 Class 6G	50m³	80t	Bulk unit weight (γ) assumed as 16kN/m³ (1.6t/m³). Nominal volume of material expected for filling voids and small depressions on the existing riverbank surface.
SITE GENERATED MATERIALS			
MATERIAL DESCRIPTION	VOLUME (m³)	EQUIVALENT MASS (TONNES)	NOTES
Site scrape material (expected to comprise poor quality clean 'TOPSOIL' with roots and rootlets)	20m³	30t	Bulk unit weight (γ) assumed as 15kN/m³ (1.5t/m³). Nominal volume of material expected to be generated from preparing the riverbank for the brushwood fences installation.



**SECTION X-X THRU' ANTI-SCOUR PROTECTION MEASURES**  
SCALE 1:25

ESTIMATED MATERIAL IMPORT AND EXPORT QUANTITIES. THE FOLLOWING IMPORTED MATERIALS ARE EXPECTED TO APPLY TO THE CONSTRUCTION OF THE PERMANENT PROTECTION MEASURES

IMPORT MATERIALS	QUANTITY
100mm diameter, circular, UC4 pressure treated, pointed end stakes 2400mm length.	200
Salix Brushwood Bundles, 300-400mm diameter, 3m lengths	500
Salix Rock Rolls: 250mm Diameter, 2m Length, 75kg each	40
Maccaferri, Class A, Double twisted rockfall netting (DT Mesh, 8x10 type) 4x25m rolls	20
Galvanised Fencing Staples, 40mm length, (>3mm diameter)	1200
Kyowa Rockbags 1.9m diameter x 0.4m deep	12



**SECTION Y-Y THRU' ANTI-SCOUR PROTECTION MEASURES**  
SCALE 1:25

- GENERAL NOTES:**
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS/DOCUMENTS.
  - IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL DIMENSIONS ON SITE. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
  - DO NOT SCALE FROM THIS DRAWING, USE FIGURED DIMENSIONS ONLY.
  - DETAILS OF LEGAL OWNERSHIP OF EXISTING BURIED ELECTRICITY CABLES SHOWN ON THIS DRAWING ARE BASED ON ADVICE PROVIDED TO IRM BY INEOS FPS. IRM IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS INFORMATION.

- GENERAL NOTES:**
- DENOTES EXISTING 'AS BUILT' (1.9 x 0.4m) ROCKBAGS.
  - DENOTES PROPOSED ADDITIONAL ROW OF (1.9 x 0.4m) ROCKBAGS
  - DENOTES PROPOSED SALIX ROCK ROLLS. POSITIONED: - AS REQUIRED IN LOCALISED BADLY SCOURED AREAS. (EXACT AREAS TO BE AGREED ON SITE WITH RESIDENT AND ARTHIAN ENGINEER). - FRONT FACE OF STAKES (WATER SIDE).

**SUGGESTED SEQUENCE OF WORKS**

ITEM REF.	BRIEF SUMMARY	NOTES/REMARKS
1	Undertake an inspection of the existing Rockbags arrangement, particularly the interface with the natural riverbank, to check for signs of erosion/scour.	It is assumed that a current Preliminary Ecological Appraisal (PEA) will be available prior to any construction works taking place.
2	Establish in-river silt protection measures and health and safety measures.	Health and safety requirements will be partially dictated by INEOS FPS through the permit to work process.
3	Conduct localised de-vegetation of the riverbank in areas where the brushwood fences are to be installed.	"The need for specific protection measures and/or environmental controls prior to de-veg works (e.g. due to invasive weeds) will be determined by the PEA. An Arthian EnvCoW may need to be present during the works."
4	Identify and fill areas of scour and other depressions on the riverbank and at the toe (including the fringes of the existing Rockbags).	Filling to be undertaken using either Salix Rock Rolls or MCHW Vol.1 SHW Series 600 Class 6G material as agreed with Arthian.
5	Install the Salix Brushwood Fences system (including stakes, bundles, toe anchor Rock Rolls and the Maccaferri DT Mesh overlay).	A significant quantity of stakes should be installed prior to placing the timber bundles to ensure that the bundles can be tightly sandwiched between the stakes.
6	Install 'contiguous' protection stakes to close off the upstream and downstream ends of the Brushwood Fences system.	-----
7	Inspect the completed structure and address any defects.	HOLD: Arthian will also be involved in the completion inspection and may instruct additional works if deemed necessary.
8	Remove in-river silt protection and other temporary works, de-mobilise.	-----

**RESIDUAL RISK REGISTER**

IN ADDITION TO THE HAZARDS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING :

IDENTIFIED RISK / HAZARD	DESCRIPTION	REF.
Working near high voltage buried cables.	The Contractor should take cognisance of buried high voltage cables and any excavation work will need to be undertaken in compliance with INEOS CoW requirements.	1
Working near water	The Contractor should take cognisance of the adjacent River Avon, which can be fast flowing and can also rise quickly with tide, when planning the construction methodology.	-

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT PERSON WORKING TO AN APPROVED SAFE SYSTEM OF WORK

**COMMENT**

REV	DATE	BY	CHKD	APP'D	DESCRIPTION
0	08.10.25	CR	MK	CT	FIRST ISSUE

**Arthian**

CLIENT: INEOS FPS

PROJECT: RIVER AVON SOUTH BANK REMEDIATION

DRAWING: PERMANENT WORKS REMEDIAL SOLUTION - PLAN & SECTIONS

DRAWING No: 20266-1007

REV: 0

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