Millimetres 0 10 100
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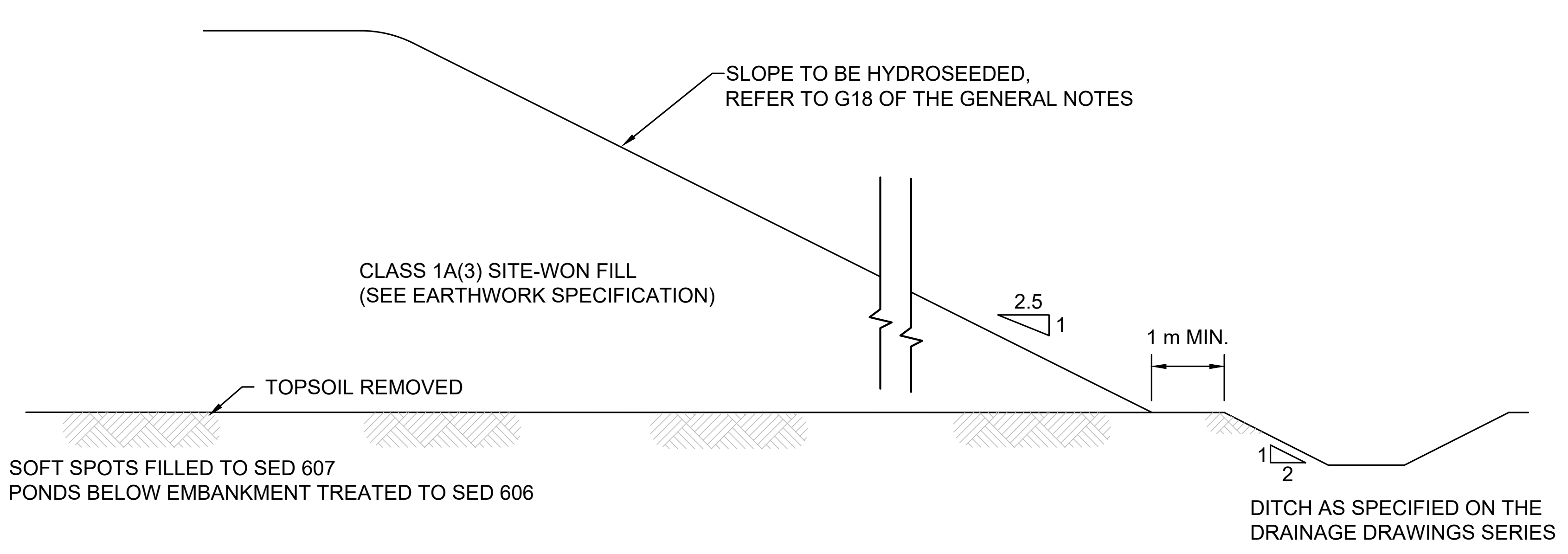
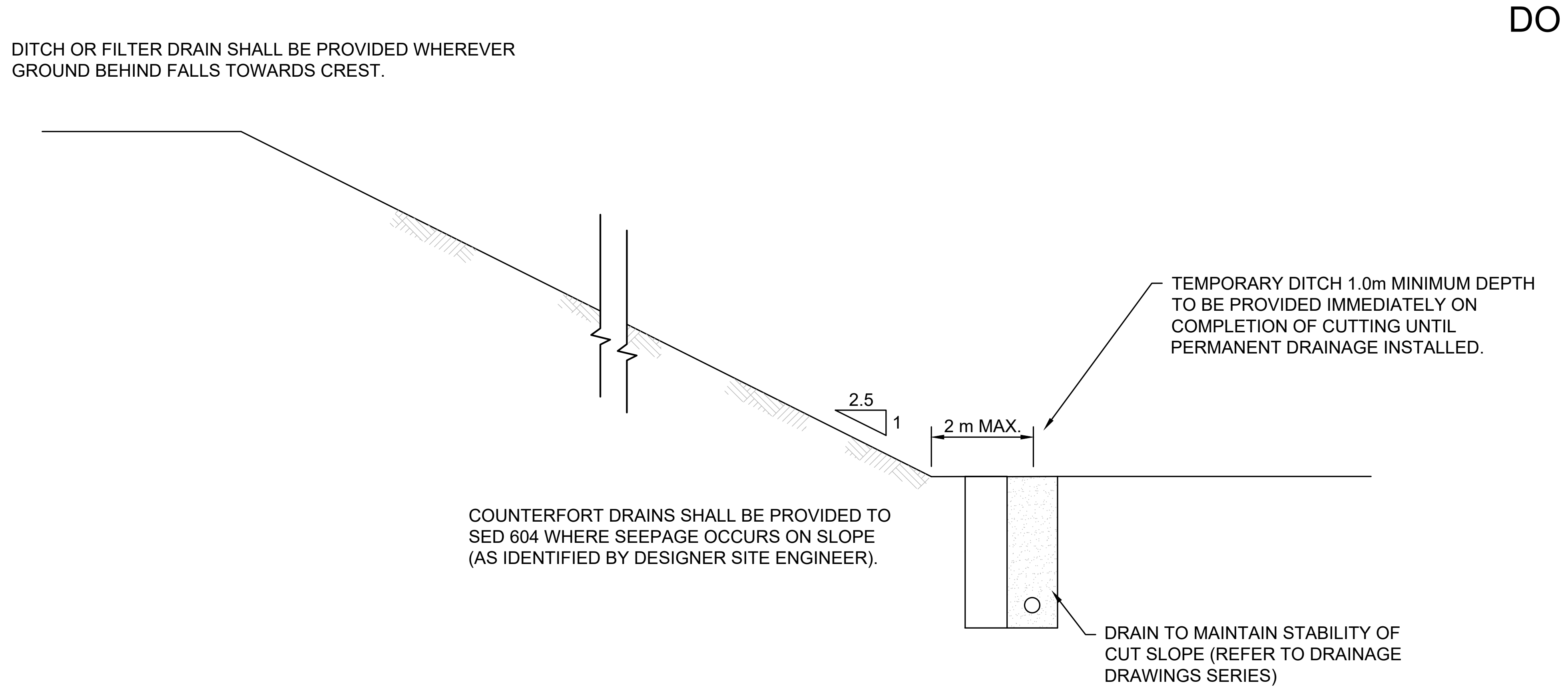
DO NOT SCALE


SLOPE TO BE HYDROSEEDED, REFER TO G18 OF THE GENERAL NOTES
CLASS 1A(3) SITE-WON FILL (SEE EARTHWORK SPECIFICATION)
2.5
1
1 m MIN.
TOPSOIL REMOVED
1
2
SOFT SPOTS FILLED TO SED 607
PONDS BELOW EMBANKMENT TREATED TO SED 606
DITCH AS SPECIFIED ON THE DRAINAGE DRAWINGS SERIES

NOTE A: IF IMPROVEMENT LAYER IS TO BE ADOPTED REFER TO SED 603

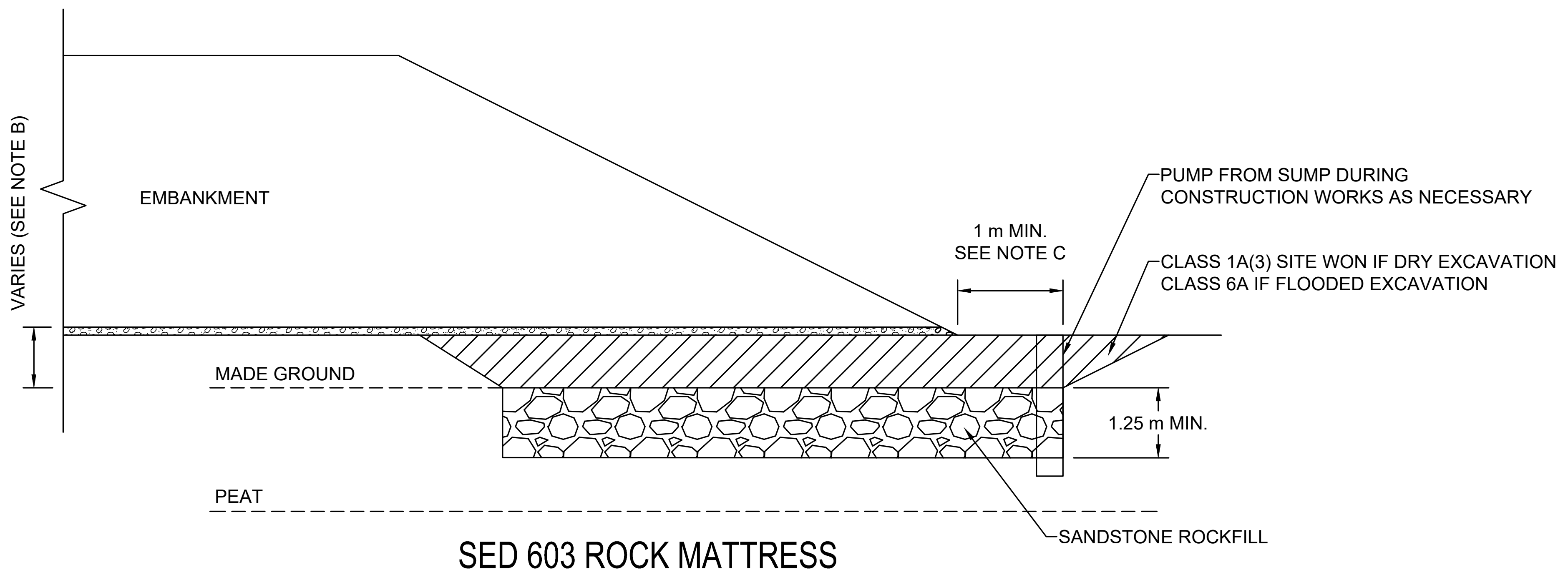
SED 601 - GENERAL EMBANKMENT SECTION

SCALE 1:50


DITCH OR FILTER DRAIN SHALL BE PROVIDED WHEREVER GROUND BEHIND FALLS TOWARDS CREST.
TEMPORARY DITCH 1.0m MINIMUM DEPTH TO BE PROVIDED IMMEDIATELY ON COMPLETION OF CUTTING UNTIL PERMANENT DRAINAGE INSTALLED.
2.5
1
2 m MAX.
COUNTERFORT DRAINS SHALL BE PROVIDED TO SED 604 WHERE SEEPAGE OCCURS ON SLOPE (AS IDENTIFIED BY DESIGNER SITE ENGINEER).
DRAIN TO MAINTAIN STABILITY OF CUT SLOPE (REFER TO DRAINAGE DRAWINGS SERIES)

SED 602 - GENERAL CUT SECTION FOR SOIL SLOPE

SCALE 1:50


VARIES (SEE NOTE B)
EMBANKMENT
1 m MIN.
SEE NOTE C
PUMP FROM SUMP DURING CONSTRUCTION WORKS AS NECESSARY
CLASS 1A(3) SITE WON IF DRY EXCAVATION
CLASS 6A IF FLOODED EXCAVATION
MADE GROUND
1.25 m MIN.
PEAT
SANDSTONE ROCKFILL

SED 603 ROCK MATTRESS

1:50

SED 603 NOTES

NOTE A: NOMINAL FALL OF PREPARED FORMATION TO BE PROVIDED TO ENCOURAGE DRAINAGE OF COLLECTED WATER TO EDGE OF EMBANKMENT. ON SLOPING GROUND, FALL TO DOWNHILL SIDE OF EMBANKMENT. WHERE FALL STEEPER THAN 1:50 THEN LOCAL DRAINAGE LAYER TO BE PLACED ON PREPARED FORMATION.

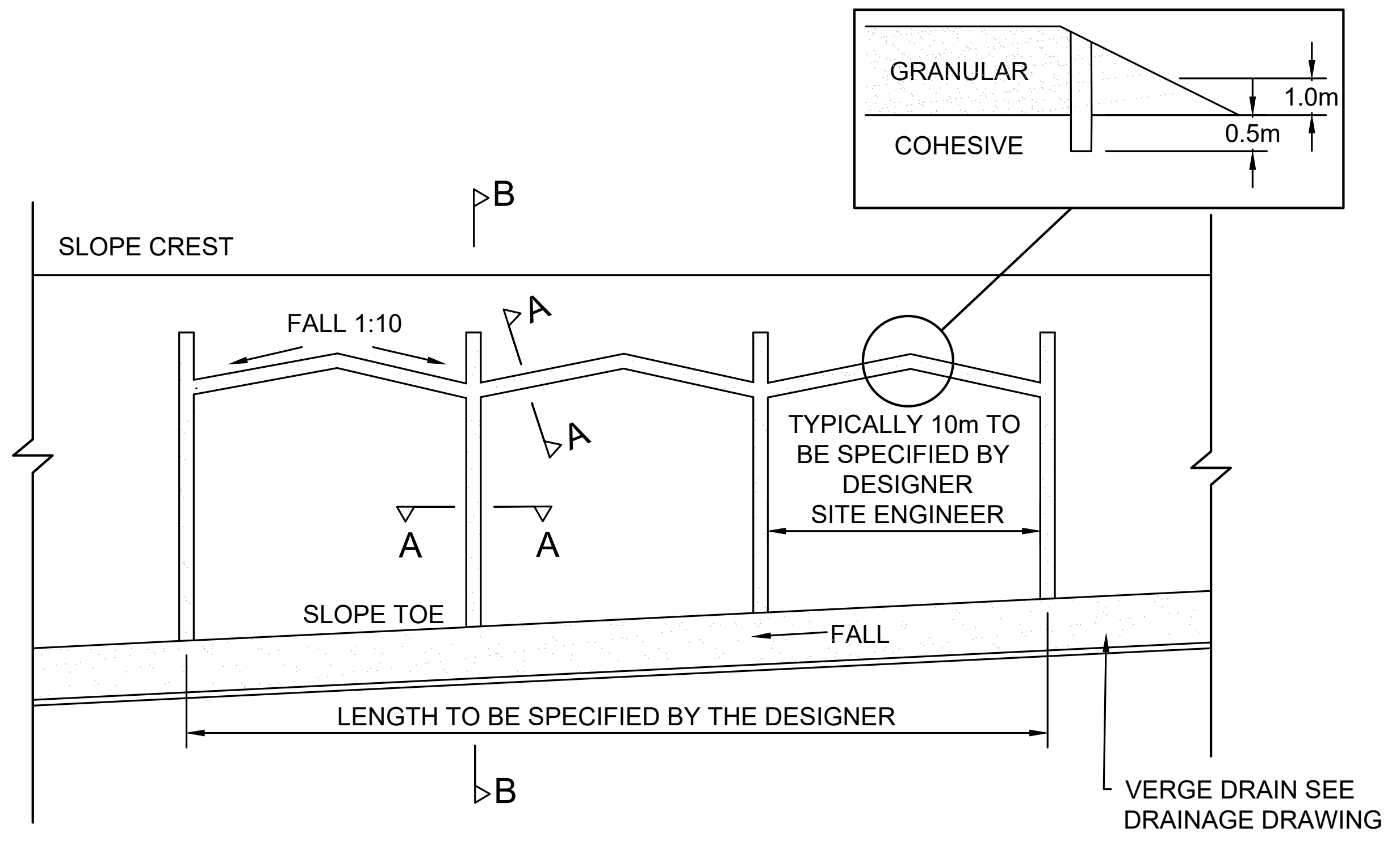
NOTE B: A ROCK MATTRESS WILL BE BUILT TO PARTLY REPLACE / STRENGTHEN THE PEAT LAYER. THE CONSTRUCTION PROCESS WILL INVOLVE EXCAVATING THE EXISTING MADE GROUND TO A MAXIMUM DEPTH OF 3 m) TO EXPOSE THE TOP OF THE PEAT LAYER BENEATH FOLLOWED BY DEPOSITING A FILL OF ROCK (AVAILABLE ON SITE) AND TRACKING THE FILL INTO THE PEAT TO DISPLACE IT. A TRIAL ALONG THE PROPOSED NORTH EMBANKMENT SHOULDER FOOTPRINT IS RECOMMENDED AS EARLY AS POSSIBLE BEFORE THE CONSTRUCTION TO VERIFY THE CONSTRUCTABILITY AND EFFECTIVENESS OF THE ROCK MATTRESS SOLUTION PROPOSED.

FOR QUALITY ASSURANCE AND QUALITY CONTROL PURPOSES:

- THE ROCK THAT IS TO BE DEPOSITED IN THE PEAT LAYER WILL PREDOMINANTLY BE SANDSTONE AT A RECOMMENDED PARTICLE SIZE OF 100-500 mm.
  - MADE GROUND EXCAVATED TO EXPOSE THE TOP OF THE PEAT, IF DRY, CAN BE REINSTATED OVER THE ROCK MATTRESS AND COMPACTED AS PER THE SPECIFICATION REQUIREMENT. IF FLOODED, THE ROCK FILL SHOULD BE USED INSTEAD TO BUILD BACK UP THE LEVEL. WET MADE GROUND SHOULD BE STOCKPILED TO DRY OUT AND BE REUSED AS SITE WON FILL TO BUILD THE EMBANKMENT ABOVE.
  - THE EFFECTIVENESS OF THE ROCK MATTRESS TREATMENT NEEDS TO BE VERIFIED AT EVERY 25 m CENTRE VIA TRIAL PITTING, ALONG THE SPAN OF THE NORTHERN EMBANKMENT TO CONFIRM EFFECTIVE REPLACEMENT OF THE PEAT AT A MINIMUM OF 75% ROCK INFILL FOR THE FIRST 1.25 m BELOW THE GROUND.

NOTE C: SHOULDER FOOTPRINT TO BE TREATED. ROCK MATTRESS TO HAVE A BASAL WIDTH OF 20 m BETWEEN CHAINAGE 12+80.00 TO 16+00.00 AND A BASAL WIDTH OF 15 m BETWEEN CHAINAGE 11+80.00 TO 12.80.00. WIDTH OF EXCAVATION TO EXTEND AT LEAST 1.0m BEYOND EMBANKMENT TOE. TEMPORARY WORKS MEASURES TO ENSURE STABILITY OF TEMPORARY SLOPES SHALL BE DETERMINED BY THE CONTRACTOR.

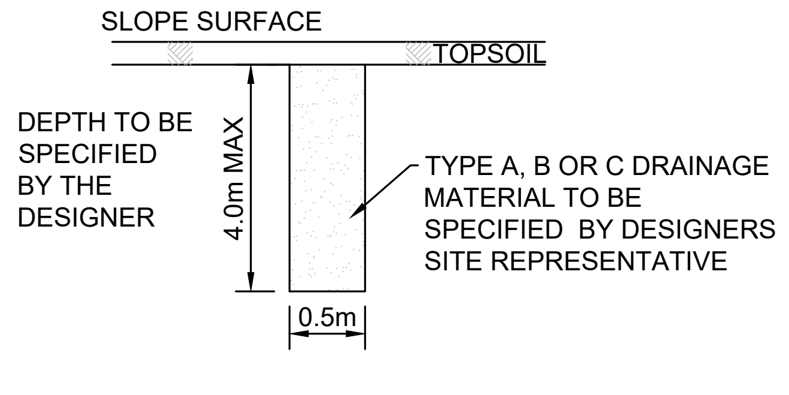
NOTE D: IF REQUIRED, SUMPS SHALL BE INSTALLED PRIOR TO FILLING TO ENABLE THE GROUNDWATER TABLE TO BE DRAWN DOWN TO ALLOW EXCAVATION OF THE MADE GROUND.


GRANULAR
COHESIVE
1.0m
0.5m
B
SLOPE CREST
FALL 1:10
A
A
TYPICALLY 10m TO BE SPECIFIED BY DESIGNER SITE ENGINEER
A
A
SLOPE TOE
FALL
LENGTH TO BE SPECIFIED BY THE DESIGNER
B
VERGE DRAIN SEE DRAINAGE DRAWING

NOTE A: COUNTERFORT DRAIN SPACING LENGTH AND LOCATION TO BE SPECIFIED BY THE DESIGNERS SITE REPRESENTATIVE (DSR)
NOTE B: THE LOCATION OF BATTER SLOPE DRAINS SHALL BE DETERMINED ON SITE IN CONJUNCTION WITH THE DESIGNERS SITE REPRESENTATIVE

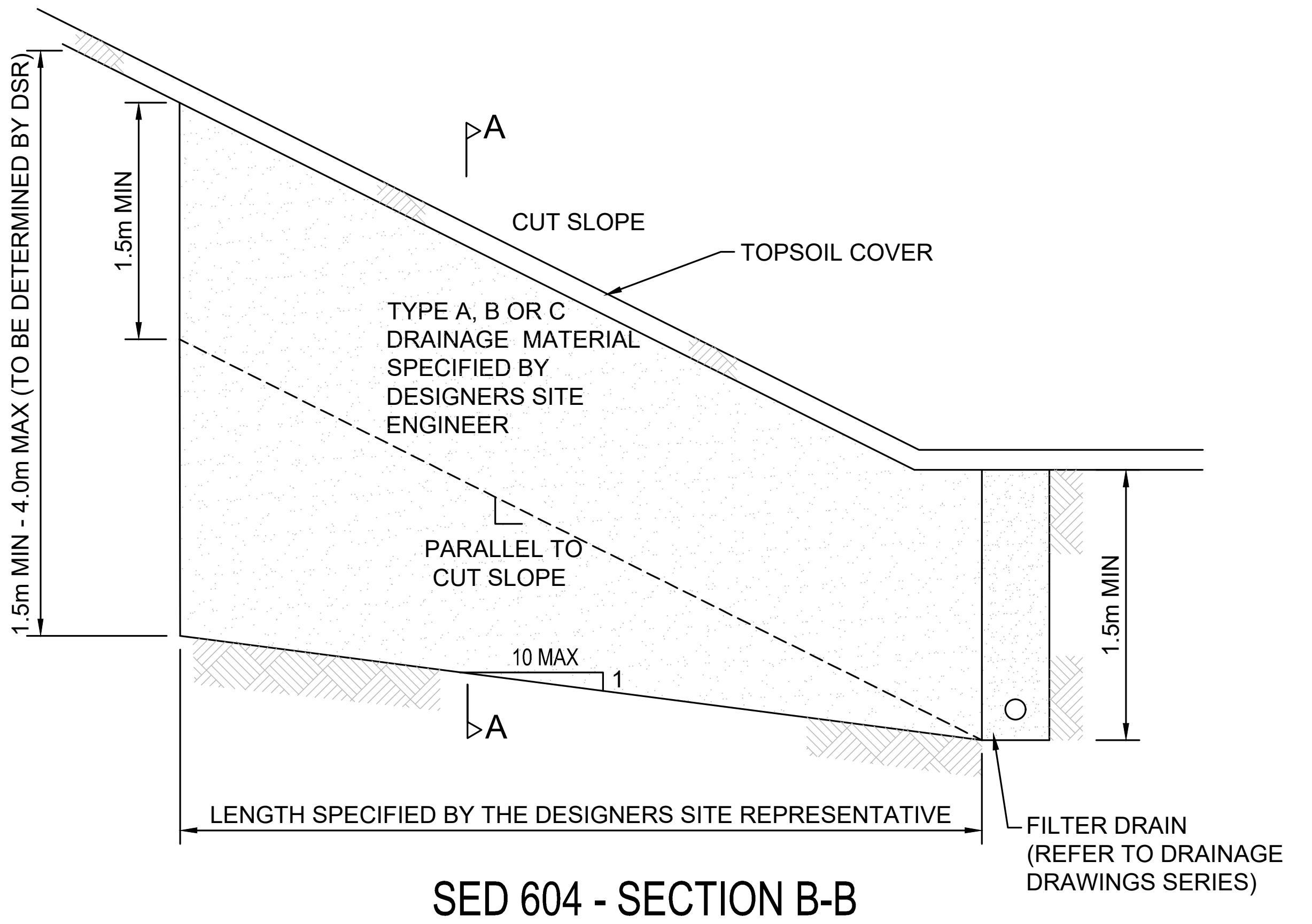
SED 604 - COUNTERFORT DRAIN PLAN OF SLOPE

SCALE 1:250


SLOPE SURFACE
TOPSOIL
DEPTH TO BE SPECIFIED BY THE DESIGNER
4.0m MAX
TYPE A, B OR C DRAINAGE MATERIAL TO BE SPECIFIED BY DESIGNERS SITE REPRESENTATIVE
0.5m

SED 604 - SECTION A-A

SCALE 1:50


1.5m MIN - 4.0m MAX (TO BE DETERMINED BY DSR)
1.5m MIN
A
CUT SLOPE
TOPSOIL COVER
TYPE A, B OR C DRAINAGE MATERIAL SPECIFIED BY DESIGNERS SITE ENGINEER
PARALLEL TO CUT SLOPE
10 MAX
1
A
1.5m MIN
LENGTH SPECIFIED BY THE DESIGNERS SITE REPRESENTATIVE
FILTER DRAIN (REFER TO DRAINAGE DRAWINGS SERIES)

SED 604 - SECTION B-B

SCALE 1:50

NOTES

1. DRAWING TO BE READ IN CONJUNCTION WITH RELEVANT EARTHWORKS AND DRAINAGE SERIES DRAWINGS LISTED ON THE DEPOT PHASE EARTHWORKS GENERAL NOTES REF: GCRE001-AWJV-EW-XX-DR-CE-00001.
2. DO NOT SCALE FROM DRAWING.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards / risks normally associated with the type of work detailed on this drawing, note the following with reference to GCRE001-AWJV-EW-XX-RP-GE-00011:

CONSTRUCTION

C1. Encountering unrecorded mine workings / adits.
C2. Potential for coal exposure and ignition.
C3. Presence of soft ground at shallow depths.
C4. Encountering historical buried structures.
C5. Potential for mine gas exposure.
C6. Potential exposure to contaminated ground (such as asbestos).
C7. Potential exposure to contaminated water.
C8. Artesian groundwater.

MAINTENANCE/CLEANING

M1. Post construction differential settlement.

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
P02	03/05/24	FOR COMMENT	JH	DC	PN
P01	17/02/23	PRELIMINARY	RH	JT	RH

Drawing Status
SUITABLE FOR REVIEW AND COMMENT
Suitability
S3

WALTERS | AtkinsRéalis

Client
GCRE
Global Centre of Rail Excellence
Canolfan Fyd-Eang Rhagoriaeth Rheilffyrdd

Project Title
GLOBAL CENTRE OF RAIL EXCELLENCE

Drawing Title
DEPOT PHASE
EARTHWORKS STANDARD DETAILS
SHEET 1 OF 2

Scale	Drawn	Checked	Approved	Authorised
AS SHOWN	JH	DC	PN	SH
Original Size A1	Date 03/05/2024	Date 03/05/2024	Date 03/05/2024	Date 03/05/2024

Drawing Number
GCRE001-AWJV-EW-XX-DR-CE-05001
Revision
P02