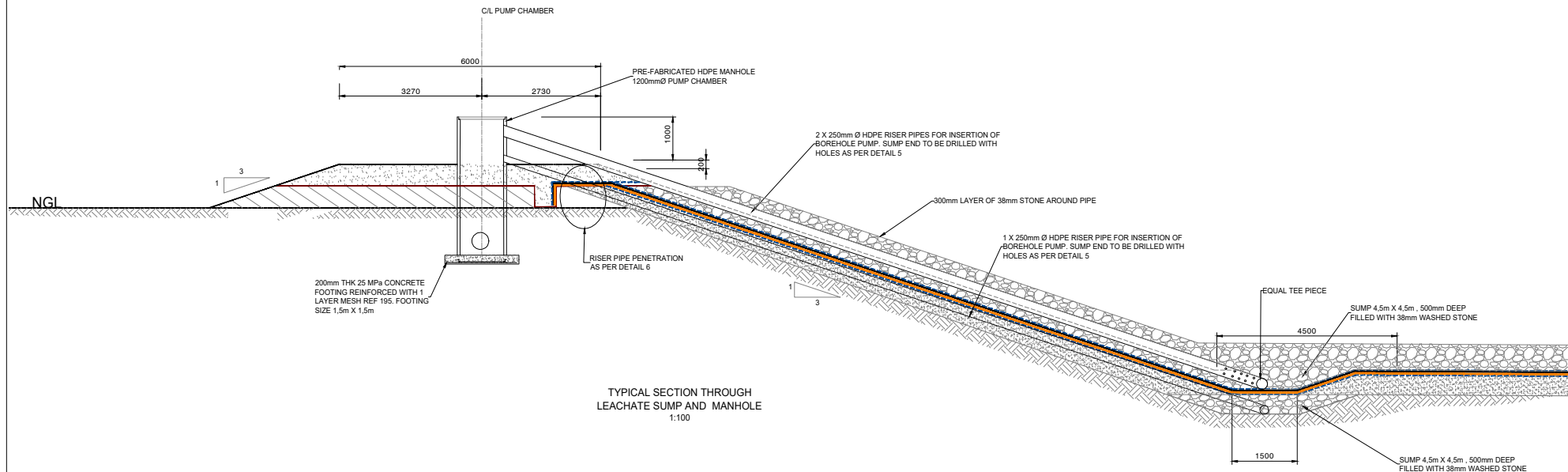
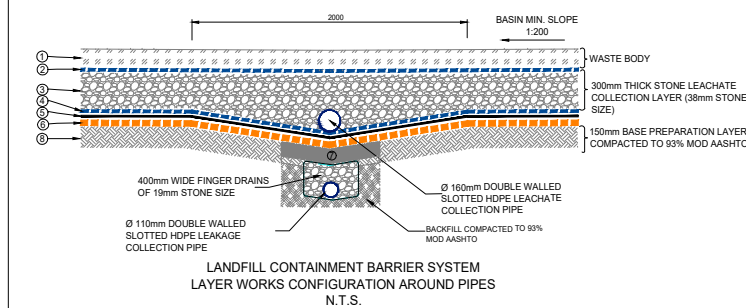


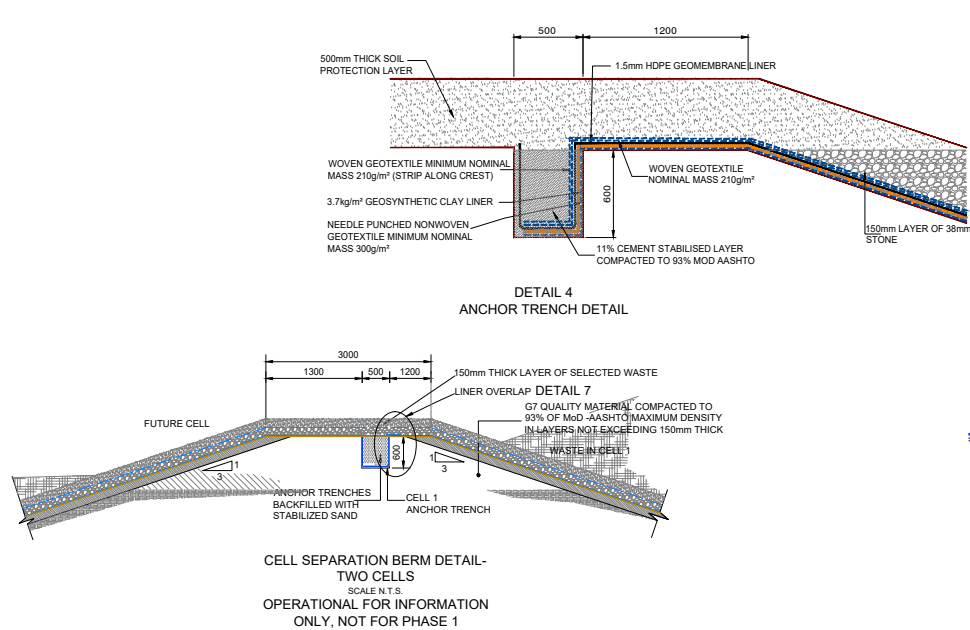
Typical Control Berm Detail
1:100



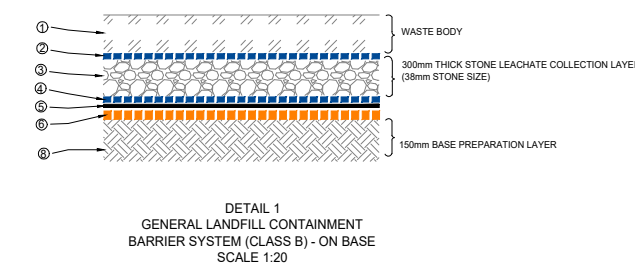
Typical Section Through Leachate Sump and Manhole
1:100



Landfill Containment Barrier System
Layer Works Configuration Around Pipes
N.T.S.

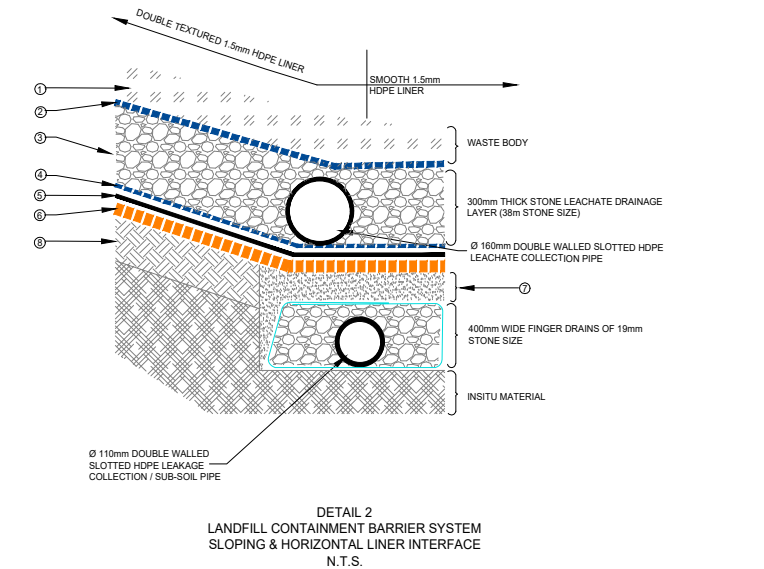


Cell Separation Berm Detail - Two Cells
SCALE N.T.S.
OPERATIONAL FOR INFORMATION ONLY, NOT FOR PHASE 1

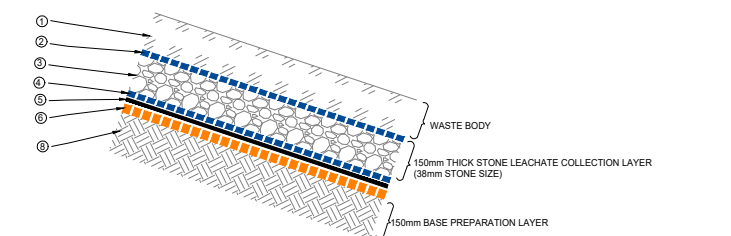


Detail 1
General Landfill Containment Barrier System (Class B) - On Base
Scale 1:20

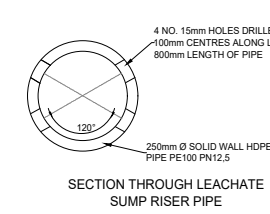
Labeling Legend	
Label	Description
①	Waste Body (1m Pioneering Waste Layer)
②	Woven Geotextile Minimum Nominal Mass 200g/m² with Min. Throughflow 50 l/m² under 100mm Head
③	300mm Thick Stone Leachate Drainage Layer (38mm Stone Size) on Base and 150mm Thick Layer on Side Slopes
④	Needle Punched Nonwoven Geotextile Minimum Nominal Mass 1000g/m²
⑤	1.5mm HDPE Geomembrane Liner (Smooth on Base and Double Textured on Side Slopes)
⑥	3.7kg/m² Geosynthetic Clay Liner
⑦	100mm Selected Sandy Fill Layer Compacted to 93% Mod AASHTO
⑧	Base Preparation Layer Compacted to 93% Mod AASHTO



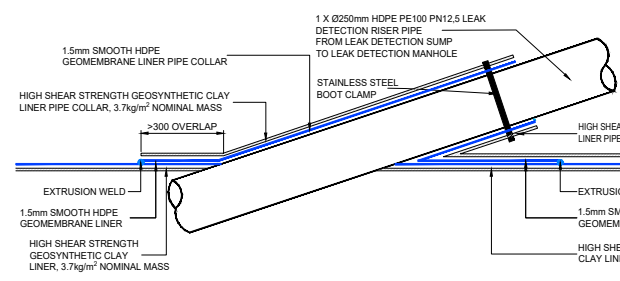
Detail 2
Landfill Containment Barrier System
Sloping & Horizontal Liner Interface
N.T.S.



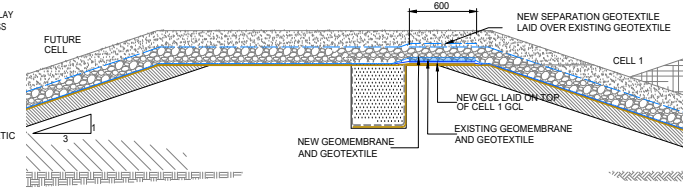
Detail 3
General Landfill Containment Barrier System (Class B) - On Side Slope
Scale 1:20



Section Through Leachate Sump Riser Pipe



Detail 6
Typical Pipe Penetration at Crest of Cell Berm
Scale 1:10



Detail 7 - Separation Berm Liner Overlap
Scale N.T.S.
FOR INFORMATION ONLY, NOT FOR PHASE 1

ALPHABETICAL LETTERS (A,B,C,...) - FOR INFORMATION ONLY. NUMERIC NUMBERS (0,1,2,...) - FOR CONSTRUCTION			
AMENDMENTS			
No.	Date	Approved	Description
A	18/01/2023	KPM	ISSUED FOR APPROVAL
0	27/06/2023	KPM	ISSUED FOR TENDER

DESIGNED	GC	
DESIGN CHECKED	KPM	ENGINEER
DRAWN	GC	DATE:
DRAWING CHECKED	KPM	CLIENT
		DATE:

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CLIENT

CAPE WINELANDS DISTRICT
MUNICIPALITY • MUNISIPALITEIT • UMASIPALA

PROJECT TITLE

CONSTRUCTION OF THE CAPE WINELANDS DISTRICT MUNICIPALITY'S REGIONAL LANDFILL SITE - ERF 4014, WORCESTER

DRAWING TITLE

LANDFILL CELLS LINER TYPICAL DETAILS

SCALE	AS SHOWN	SIZE	A0
JOB NUMBER	ES-754-2022		
SHEET NO.	1 OF 1		
DRAWING NO.	ES-754 - 2022 - 013 - REV-0		