RELEVANT STANDARDS:

1. SABS 1200 A - GENERAL
2. SABS 1200 AB - GENERAL (SMALL WORKS)
3. SABS 1200 AD - GENERAL (DAMS)
4. SABS 1200 D - EARTHWORKS
5. SABS 1200 DA - EARTHWORKS (SMALL WORKS)
6. SABS 1560 - (STEEL WIRE GABION CAGES
7. SABS 1200 DK - GABIONS AND PITCHING
8. SANS 10409 - DESIGN SELECTION & INSTALLATION OF GEOMEMBRANES.

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEER'S DRAWINGS FOR THE CELL DEVELOPMENT AND LANDFILL SITE.
2. ANY DISCREPANCIES & AMBIGUITIES ON THE ENGINEERS DRAWINGS TO BE REPORTED TO ENVITECH SOLUTIONS (PTY) LTD IMMEDIATELY.
3. LEVELS AND DIMENSIONS TO BE CHECKED BEFORE ANY CONSTRUCTION WORK COMMENCES DIMENSIONS MUST NOT BE SCALED.

EARTHWORKS NOTES

1. ALL IMPORTED FILL TO BE G7 QUALITY MATERIAL OR BETTER UNLESS OTHERWISE SPECIFIED BY THE ENGINEER
2. ALL LEVELS SHOWN ARE BULK EARTHWORKS LEVELS UNLESS OTHERWISE AGREED
3. BATTER SLOPES TO BE 3:1 UNLESS OTHERWISE AGREED
4. ALL G7 FILL MATERIAL TO BE COMPACTED TO MINIMUM 93% MODIFIED AASHTO DENSITY UNLESS OTHERWISE SPECIFIED BY THE ENGINEER AT OMC TO OMC ±2%
5. ALL CLAY MATERIAL TO BE COMPACTED TO MINIMUM OF 100% STANDARD PROCTOR DENSITY AT OMC TO OMC ±2% UNLESS OTHERWISE NOTED IN LAYERS NOT EXCEEDING 150mm THICK
6. SETTING OUT DIMENSIONS TO BE CONFIRMED ON SITE
7. CONTRACTOR TO ENSURE THAT ALL SITE ACTIVITIES ARE IN ACCORDANCE WITH OCCUPATIONAL HEALTH AND SAFETY ACT, No 85 of 1993 (OH&SCT) AS AMENDED
8. ALL WORKS TO COMPLY WITH THE REQUIREMENTS OF SABS 1200D
9. ACCURACY OF WORK TO COMPLY WITH SABS 1200D DEGREE OF ACCURACY
10. TESTING
11. ONE STANDARD PROCTOR DENSITY DETERMINATION TO BE CARRIED OUT FOR EACH SET OF TESTS ON HOMOGENEOUS MATERIAL
12. BASE PREPARATION TEST TO COMPRISE: BASE PREPARATION LAYER 6 TESTS PER 2000sq.m PER EVERY 150mm THICK LAYER COMPACTED CLAY LAYER 6 TESTS PER 2000sq.m PER EVERY 150mm THICK LAYER
13. FINISHED BULK EARTHWORKS SHALL BE SMOOTH AND FREE FROM PROTRUSIONS THAT COULD PUNCTURE THE GEOMEMBRANE LINER ALL EARTHWORKS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE ANY GEOSYNTHETICS AND GEOMEMBRANES ARE LAID.
14. BASE PREPARATION SHALL INCLUDE RIPPING AND RE-COMPACTING 150mm THICK IN-SITU MATERIAL TO 100% STANDARD PROCTOR DENSITY AT OMC TO OMC ±2%
15. ALL EMBANKMENT FILL MATERIAL SHALL BE CLAYEY GRAVEL MATERIAL AND COMPACTED TO 100% STANDARD PROCTOR DENSITY AT OMC TO ±2% IN LAYERS NOT EXCEEDING 150mm. CBR SHALL NOT BE LESS THAN 3% AND THE PLASTICITY INDEX SHALL BE 6<Pi<15.
16. ALL GEOSYNTHETICS ANCHOR TRENCHES SHALL BE BACKFILLED WITH SELECTED CLAY MATERIAL OR BETTER AND COMPACTED IN 150mm THICK LAYERS TO 100% STANDARD PROCTOR DENSITY AT OMC TO ±2%

LEGEND:

- LANDFILL FOOTPRINT
- CELL SEPARATION BERMS
- CADASTRAL BOUNDARY
- SOLID LEACHATE COLLECTION RISER PIPE
- PERFORATED LEACHATE COLLECTION PIPE
- SOLID LEAKAGE DETECTION RISER PIPE
- SOLID LEACHATE RETICULATION PIPELINE
- LEACHATE RETICULATION MANHOLE

PIPELINE TO HAVE END CAP WELDED WITH ABOVE GROUND MARKER FOR FUTURE CELL LEACHATE LINE CONNECTION

PIPELINE TO HAVE END CAP WELDED WITH ABOVE GROUND MARKER FOR FUTURE CELL LEACHATE LINE CONNECTION

CELL 1

1 x Ø160mm PERFORATED HDPE LEACHATE COLLECTION PIPES

FLOW DIRECTION

200Ø HDPE PE100 PN12.5

MH08 MH09 MH10 MH11 MH12 MH13 MH14 MH15 MH16 MH17 LD18

MH01 MH02 MH03 MH04 MH05 MH06 LD07

PM6 PM7 PM8 PM9

LEACHATE DAM

CONTAMINATED STORMWATER DAM

COORDINATE LIST		
WC		
WestLine		
MH No.	X	Y
Constant:		
MH08	42713.619	-3728601.951
MH09	42674.152	-3728681.543
MH10	42659.920	-3728739.768
MH11	42645.688	-3728797.992
MH12	42630.735	-3728859.168
MH13	42627.561	-3728872.309
MH14	42697.345	-3728911.426
MH15	42767.159	-3728950.560
MH16	42836.943	-3728989.678
MH17	42855.932	-3729000.287
LD18	42873.251	-3728996.178

PIPE DATA LIST		
MH - MH	Distance	Diam.
WestLine	(m)	(mm)
MH08 - MH09	88.840	200mm HDPE PE100 PN12.5
MH09 - MH10	59.939	200mm HDPE PE100 PN12.5
MH10 - MH11	59.939	200mm HDPE PE100 PN12.5
MH11 - MH12	62.976	200mm HDPE PE100 PN12.5
MH12 - MH13	13.519	200mm HDPE PE100 PN12.5
MH13 - MH14	80.000	200mm HDPE PE100 PN12.5
MH14 - MH15	80.034	200mm HDPE PE100 PN12.5
MH15 - MH16	80.000	200mm HDPE PE100 PN12.5
MH16 - MH17	21.752	200mm HDPE PE100 PN12.5
MH17 - LD18	17.799	200mm HDPE PE100 PN12.5

TOTAL LENGTHS OF PIPING		
MH Centre to MH Centre		
Diameter (mm)		Length (m)
200mm HDPE PE100 PN12.5		564.80
	Total :	564.80

COORDINATE LIST		
WC		
EastLine		
MH No.	X	Y
Constant:		
MH01	43144.749	-3728820.568
MH02	43103.640	-3728877.141
MH03	43062.531	-3728933.715
MH04	43026.948	-3728982.683
MH05	43017.365	-3728995.874
MH06	42967.060	-3728967.687
LD07	42946.473	-3728973.555

PIPE DATA LIST		
MH - MH	Distance	Diam.
EastLine	(m)	(mm)
MH01 - MH02	69.932	200mm HDPE PE100 PN12.5
MH02 - MH03	69.932	200mm HDPE PE100 PN12.5
MH03 - MH04	60.530	200mm HDPE PE100 PN12.5
MH04 - MH05	16.306	200mm HDPE PE100 PN12.5
MH05 - MH06	57.664	200mm HDPE PE100 PN12.5
MH06 - LD07	21.407	200mm HDPE PE100 PN12.5

TOTAL LENGTHS OF PIPING		
MH Centre to MH Centre		
Diameter (mm)		Length (m)
200mm HDPE PE100 PN12.5		295.77
	Total :	295.77

AMENDMENTS			
NO.	DATE	APPROVED	DESCRIPTION
A	18-01-2023	KPM	ISSUED FOR APPROVAL
0	27-06-2023	KPM	ISSUED FOR TENDER

DESIGNED: KPM

DESIGN CHECKED: GF

DRAWN: KPM

DRAWING CHECKED: GF

ENGINEER DATE:

CLIENT DATE:

CONSULTANT

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CLIENT

CAPE WINELANDS DISTRICT
MUNICIPALITY • MUNISIPALITEIT • UMASIPALA

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

LEACHATE COLLECTION SYSTEM LAYOUT - CELL 1

SCALE	1:600
PAPER SIZE	A0
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SHEET NO.	1 OF 2
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