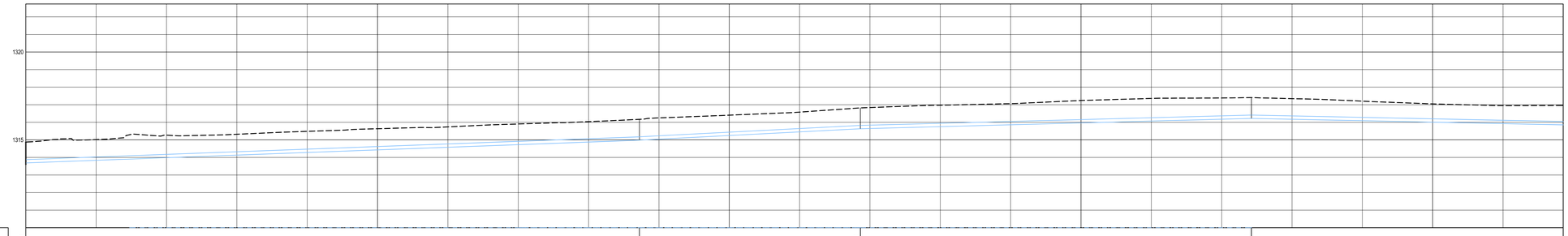

NGL
EGL
HGL

SCALES:
Horizontal 1:500
Vertical 1:100

DATUM 1310.000

REFERENCE	Opt2_J1									Opt2_J2					Opt2_J3					Opt2_J4	
	Ø200 PN 12									Ø200 PN 12					Ø200 PN 12					Ø200 PN 12	
DISTANCE (m)	0.000	20.000	40.000	60.000	80.000	100.000	120.000	140.000	160.000	174.457	180.000	200.000	220.000	237.280	240.000	260.000	280.000	300.000	320.000	340.000	345.409	360.000	380.000	400.000	420.000	437.102
GROUND LEVEL	1314.873	1315.013	1315.267	1315.319	1315.484	1315.634	1315.738	1315.965	1316.037	1316.168	1316.250	1316.406	1316.579	1316.818	1316.839	1316.870	1317.062	1317.241	1317.357	1317.394	1317.406	1317.346	1317.202	1317.047	1316.950	1316.962
PIPE INVERT LEVEL	1313.692	1315.013	1315.267	1315.319	1315.484	1315.634	1315.738	1315.965	1316.037	1314.987	1316.250	1316.406	1316.579	1315.637	1316.839	1316.870	1317.062	1317.241	1317.357	1317.394	1315.225	1317.346	1317.202	1317.047	1316.950	1316.962
DEPTH TO INVERT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TRENCH LEVEL	1315.013	1315.267	1315.319	1315.484	1315.634	1315.705	1315.738	1315.965	1316.037	1316.250	1316.406	1316.555	1316.579	1316.839	1316.870	1317.062	1317.241	1317.357	1317.371	1317.394	1317.346	1317.202	1317.047	1316.950	1316.962	
DEPTH TO TRENCH	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SLOPE / LENGTH	-0.74% -1:134.7 174.46m									-1.03% -1:96.6 62.82m					-0.53% -1:189.2 111.19m						0.41% 1:241.9 118.36m				
CHANGE IN DIRECTION VERT | HOR | COMBINED	0.000 0.000 0.000									0.000 0.000 0.000					0.000 1.788 1.812					Undefined Undefined Undefined					
FITTINGS															STRAIGHT											
HYDRAULICS DESIGN Q(l/s)	0.00									0.00					0.00						0.00					
HYDRAULICS DESIGN V(m/s)	0.0									0.0					0.0						0.0					
CLASSIFICATION PIPE																										
CLASSIFICATION VALVE																										
GEOLOGICAL DATA																										

LONGSECTION OPTION 2_PIPE LINE ROUTE
FROM 0.000 TO 437.102

GENERAL NOTES:

THIS DESIGN WAS ENGINEERED BY:
SEA PROJECTS AND ENGINEERING (PTY) LTD

1. ALL MATERIALS AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS PROJECT SPECIFICATIONS.
2. ALL DIMENSIONS IN MILLIMETERS.
3. ALL DIMENSIONS MUST BE CHECKED AND APPROVED ON SITE.
4. ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR MUNICIPAL CIVIL ENGINEERING WORKS.
5. FINAL POSITION TO BE DETERMINED ON SITE.
6. ALL CONCRETE MIXES TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
7. EXCAVATIONS TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
8. ALL MASS CONCRETE TO BE 15MPa/19 UNLESS STATED OTHERWISE BY THE ENGINEER.
9. BENCHING SHALL BE FINISHED WITH A 20mm DOLOMITIC LAYER PLACED WHILE CONCRETE IS STILL GREEN AND STEEL FLOAT TO SMOOTH FINISHED.
10. BACKFILL TO BE DONE WITH G5 MATERIAL COMPACTED IN LAYERS OF 150mm THICK TO 93% MOD AASHTO AT OMC.
11. CHANNELING MUST BE BUILT WITH GLAZED EARTHENWARE OR FIBRE CEMENT CHANNEL RECESSED INTO CONCRETE FOUNDATION.
12. EXCAVATION PRIOR TO TRENCH EXCAVATIONS AND CONFIRM LEVELS.
13. COMPACTION OF BEDDING MATERIAL AROUND PIPE TO BE DONE WITH SPECIAL CARE.
14. ALL PIPES TO BE PRESSURE TESTED TESTED AFTER COMPLETION.

LEGEND

Benchmarks	Sign Post	Concrete Paving	Culvert
Electric Pole	Steel Pole	Brick Paving	Drain
Sign Board	Staywire	Tarred Road	Top of pipe
Fibre Manhole	Water Valve	Dust Road	Fence
Lamp Post	Valve Manhole	Driveway	Wall
Fire Hydrant	Bollard	Railway	Bottom Kerb
Tree	Wooden Pole	Gate	Top Kerb
Water Meter	Water Tank	Electric Box	Minor Contour
Sewer Manhole	Invert Level		Major Contour
Unknown Manhole	Stormwater Manhole		
Rock			

DESIGN COORDINATOR APPROVAL:

SIGNATURE DATE

PROJECT MANAGER APPROVAL:

SIGNATURE DATE

CLIENT APPROVAL:

SIGNATURE DATE

REVISIONS					
A	28/05/2026	ISSUED FOR TENDER	C.K.	M.R.	S.N.
NO.:	DATE	DESCRIPTION	BY:	CHK:	APPR.:

DESIGNED:	DRAWN:	CHECKED:	APPROVED:	DATE:	SCALE:
M.R	C.K	M.R	S.N	29/05/2026	N.T.S

CLIENT:

Maqussi Hills Local Municipality

MAQUASSI HILLS LOCAL MUNICIPALITY
Private Bag X3
19 Krugger Street
Wolmaranstad
2630

TEL: (018) 596 1068
FAX: (018) 596 1555
WEB: www.maquassihills.co.za

PROJECT:

REPLACEMENT OF ASBESTOS CEMENT BULK AND RETICULATION PIPELINES

DRAWING TITLE:

MAKWASSI HILL - BULK PIPELINE:
DN250 BULK PIPELINE LONGSECTION SHEET 1

CONSULTANTS:

SEA PROJECTS AND ENGINEERING

7107 Rosewood Road
Broadacres
Gauteng
2169

SEA PROJECTS AND ENGINEERING (PTY) LTD

TEL NO.: +27(0) 10 143 1687
EMAIL: seane@seaprojects.co.za

SIZE:	PROJECT NO.:	DRAWING NO.:	SHEET NO.:	REVISION:
A0	20241003	DRG-CIV-003	01	A