



- GENERAL NOTES:**
- THIS DESIGN WAS ENGINEERED BY:
SEA PROJECTS AND ENGINEERING (PTY) LTD
- ALL MATERIALS AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS PROJECT SPECIFICATIONS.
 - ALL DIMENSIONS IN MILLIMETERS.
 - ALL DIMENSIONS MUST BE CHECKED AND APPROVED ON SITE.
 - ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR MUNICIPAL CIVIL ENGINEERING WORKS.
 - FINAL POSITION TO BE DETERMINED ON SITE.
 - ALL CONCRETE MIXES TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
 - EXCAVATIONS TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
 - ALL MASS CONCRETE TO BE 15MPa/19 UNLESS STATED OTHERWISE BY THE ENGINEER.
 - BENCHING SHALL BE FINISHED WITH A 20mm DOLOMITIC LAYER PLACED WHILE CONCRETE IS STILL GREEN AND STEEL FLOAT TO SMOOTH FINISHED.
 - BACKFILL TO BE DONE WITH G5 MATERIAL COMPACTED IN LAYERS OF 150mm THICK TO 95% MOD RASBIT AT OMC.
 - CHANNELING MUST BE BUILT WITH GLAZED EARTHENWARE OR FIBRE CEMENT CHANNEL RECESSED INTO CONCRETE FOUNDATION.
 - EXCAVATION PRIOR TO TRENCH EXCAVATIONS AND CONFIRM LEVELS.
 - COMPACTION OF BEDDING MATERIAL AROUND PIPE TO BE DONE WITH SPECIAL CARE.
 - ALL PIPES TO BE PRESSURE TESTED TESTED AFTER COMPLETION.

LEGEND

▲ Benchmark	⊥ Sign Post	▨ Concrete Paving	— Culvert
⊙ Electric Pole	⊙ Steel Pole	▨ Brick Paving	— Drain
⊙ Sign Board	⊙ Staywire	▨ Tamed Road	— Top of pipe
⊙ Fibre Manhole	⊙ Water Valve	▨ Dust Road	— Fence
⊙ Lamp Post	⊙ Valve Manhole	▨ Driveway	— Wall
⊙ Fire Hydrant	⊙ Bollard	▨ Railway	— Top Kerb
⊙ Tree	⊙ Wooden Pole	▨ Gate	— Minor Contour
⊙ Water Meter	⊙ Water Tank	⊙ Invert Level	— Major Contour
⊙ Sewer Manhole	⊙ Electric Box	⊙ Stormwater Manhole	

DESIGN COORDINATOR APPROVAL:

SIGNATURE _____ DATE _____

PROJECT MANAGER APPROVAL:

SIGNATURE _____ DATE _____

CLIENT APPROVAL:

SIGNATURE _____ DATE _____

REVISIONS

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

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

CLIENT:



MAQUASSI HILLS LOCAL MUNICIPALITY
Private Bag X3
19 Kogagar Street
Wolmarstad
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 3

CONSULTANTS:

SEA PROJECTS AND ENGINEERING



7107 Rosewood Road
Broadacres
Gauteng
2169

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

SIZE:	PROJECT NO.:	DRAWING NO.:	SHEET NO.:	REVISION:
A0	20241003	DRG-CIV-005	03	A

REFERENCE	DISTANCE (m)	GROUND LEVEL	PIPE INVERT LEVEL	DEPTH TO INVERT	TRENCH LEVEL	DEPTH TO TRENCH	SLOPE / LENGTH	CHANGE IN DIRECTION	FITTINGS	HYDRAULICS	CLASSIFICATION	GEOLOGICAL DATA
0200 PN 12	874.204	1317.671	1317.671	0.000	1317.671	0.000	-0.30%			0.00	PIPE	
	880.000	1317.664	1317.664	0.000	1317.664	0.000	-1.334.8			0.0	VALVE	
	890.000	1317.717	1317.717	0.000	1317.717	0.000	287.53m					
	900.000	1317.683	1317.683	0.000	1317.683	0.000						
	910.000	1317.643	1317.643	0.000	1317.643	0.000						
	920.000	1317.696	1317.696	0.000	1317.696	0.000						
	930.000	1318.004	1318.004	0.000	1318.004	0.000						
	940.000	1318.013	1318.013	0.000	1318.013	0.000						
	950.000	1318.006	1318.006	0.000	1318.006	0.000						
	960.000	1318.111	1318.111	0.000	1318.111	0.000						
	970.000	1318.137	1318.137	0.000	1318.137	0.000						
	980.000	1318.194	1318.194	0.000	1318.194	0.000						
	990.000	1318.204	1318.204	0.000	1318.204	0.000						
	1000.000	1318.205	1318.205	0.000	1318.205	0.000						
	1010.000	1318.165	1318.165	0.000	1318.165	0.000						
	1020.000	1318.092	1318.092	0.000	1318.092	0.000						
	1030.000	1318.146	1318.146	0.000	1318.146	0.000						
0200 PN 12	1040.000	1318.480	1318.480	0.000	1318.480	0.000	0.03%			0.00		
	1050.000	1318.442	1318.442	0.000	1318.442	0.000	1.3650.9			0.0		
	1060.000	1317.892	1317.892	0.000	1317.892	0.000	231.03m					
	1070.000	1317.792	1317.792	0.000	1317.792	0.000						
	1080.000	1317.790	1317.790	0.000	1317.790	0.000						
	1090.000	1317.812	1317.812	0.000	1317.812	0.000						
	1100.000	1317.801	1317.801	0.000	1317.801	0.000						
	1110.000	1317.840	1317.840	0.000	1317.840	0.000						
	1120.000	1317.815	1317.815	0.000	1317.815	0.000						
	1130.000	1317.872	1317.872	0.000	1317.872	0.000						
	1140.000	1317.896	1317.896	0.000	1317.896	0.000						
	1150.000	1318.103	1318.103	0.000	1318.103	0.000						
	1160.000	1318.118	1318.118	0.000	1318.118	0.000						

LONGSECTION OPTION 2 PIPE LINE ROUTE
FROM 874.204 TO 1311.306

NCL
EGL
HGL

SCALES:
Horizontal 1:500
Vertical 1:100

DATUM 1313.000

KEY
LAST
CORRECTED