



OPTION 2: PROPOSED BULK PIPELINE TO SUPPLY LEBALENG. RUNS ALONG R555 REPLACEMENT OF EXTG AC PIPELINE TO TE-IN TO EXTG BULK CHAMBER BEFORE MAKWASSIE RESERVOIR. ALLOWS FOR FEEDING BOTH RESERVOIRS SIMULTANEOUSLY.

DN250 PVC BULK PIPE FROM WOLMARANSTARD

COMPLETE REPLACEMENT OF EXTG ISOLATION VALVE IN RETICULATION NETWORK

ALTERNATIVE PIPE ROUTE FOR OPTION 1

MAKWASSIE RESERVOIR SITE
RES VOLUME: 455 KL
ELEVATED TOWER: 217 KL
INCOMING PIPE SIZE: DN250
FLOW RATE: 73 LIS
FILL DURATION: approx. 2hrs

LEBALENG RESERVOIR SITE
RES VOLUME: 650 KLELEVATED TOWER: 200 KL
INCOMING PIPE SIZE: DN250
FLOW RATE: 73 LIS
FILL DURATION : approx. 2.5hrs

LAYOUT PLAN
N.T.S

- 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/10 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 85% 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

▲ Benchmarks	⊕ Sign Post	▒ Concrete Paving	— Culvert
⊖ Electric Pole	⊕ Steel Pole	▒ Brick Paving	— Drain
⊕ Sign Board	⊕ Staylays	▒ Tarmac Road	— Top of pipe
⊕ Fibre Manhole	⊕ Water Valve	▒ Dust Road	— Fence
⊕ Lamp Post	⊕ Valve Manhole	▒ Driveway	— Wall
⊕ Fire Hydrant	⊕ Bolt	▒ Railway	— Bottom Kerb
⊕ Tree	⊕ Wooden Pole	▒ Gate	— Top Kerb
⊕ Water Meter	⊕ Water Tank	⊕ Invert Level	— Minor Contour
⊕ Sewer Manhole	⊕ Invert Level	⊕ Electric Box	— Major Contour
⊕ Unknown Manhole	⊕ 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 Kogger 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 HILLS - BULK PIPELINE:
DN250 LAYOUT PLAN

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-002	01	A
----	----------	-------------	----	---