

SCOPE OF WORK

1. Background

Hazelmere WTP receives raw water from Hazelmere Dam. The WTP has a capacity of 75 Ml/day and receives raw water through an old 600 mm diameter Asbestos Cement (AC) gravity pipeline. Within this pipeline, there are two chambers (air and scour valves) that have been damaged because of vandalism. The pipeline air valve is DN150 with a double orifice, while the scour valve is ND250. These chambers are crucial to the raw water conveyance system. The air valves protect the pipe by releasing trapped air, preventing surge attacks. When the pipeline requires maintenance or repairs, the scour valve allows scouring. Currently, these valves are exposed, increasing the risk of theft.

2. Description of goods/ services required

2.1 Technical Specification

- Contractor's establishment on-site and general obligations including compliance with SHEQ requirements
- Removal and disposal of two dead chambers rubble
- Removal of vegetation and other debris abutting the works
- Design a 2.5mx2.5mx2.5m concrete air valve square chamber allowing staff access for maintenance and replacement of valves, and prepare the CAD drawings
- Design a 1mx1m concrete scour valve square chamber allowing staff access for maintenance, also allowing water to flow during the scouring process, and prepare the CAD drawings
- Approval of chamber designs by Professional Civil Engineer
- Construction Monitoring
- Prepare foundations of both chambers inclusive of excavations
- Re-enforcement in various sizes for both chambers as per Engineers recommendations
- Cast-in-situ concrete 25 MPA for an air valve chamber and also cast-in-situ 25 MPA for a scour chamber as per the approved designs
- Supply, deliver, and install a concrete chamber slab cover with an access manhole for the air valve chambers
- Supply, deliver, and install concrete chamber cover slab with lifting hooks for scour valve chambers
- Supply, deliver, and install FRP access ladder-SABS approved for only air valve
- Supply, deliver, and install Polymer concrete chamber lid with locking mechanism for air valve chambers
- Supply, deliver, and apply white paint on the body of both air valve and scour chambers
- Supply, deliver, and apply yellow paint on the chamber cover slab for both air valve and scour chambers
- Supply, deliver, and apply black paint on the FRP chamber lid for air valve
- Supply, deliver, and install Double Orifice Air Valve DN150/PN16, flanged to match existing flanges

- Post-construction site clearing and make site good
- Final works approval by the Pr. Engineer-Civil
- Commissioning and Handover

2.2 GENERAL SPECIFICATION

- All contractor staff and vehicles brought onto our sites may and can be subject to a search when entering and leaving our site.
- Working hours for the Contractor's personnel at uMngeni-uThukela Water's locations shall be between 07h30 and 16h00 on Monday to Thursday, Friday until 15h00. Also before starting work on site and when arriving and leaving site contractor to report to the respective plant control room.
- If any alterations, additions and or omissions are required written approval is to be sort from the Project Manager, before any work is carried out.
- Contractor to make provision for the supply of labour, transport and equipment required to carry out the work.
- All pages of quotation document to be signed and returned with quotation.
- Workers are to be under supervision at all times and uMngeni-uThukela Water facilities such as phones, canteens, and offices are out of bounds. Contractor is to ensure that their staff do not loiter around the site and stay in the area allocated to them.
- Site to be in a clean and tidy state at all times. Contractor to ensure adequate safety precautions that are required for this type of work are carried out. The site to be open to uMngeni-uThukela Water for inspection and operation requirements at all times. Contractor is to remove and dispose of all waste daily from the site.
- uMngeni-uThukela Water will not be responsible for any items or equipment brought onto our site whatever the circumstances. uMngeni-uThukela Water will not provide storage facilities or be responsible for items left on site.