

| KLERKSDORP MANIFOLD,TANK FARM, BUNDED WALL & SPILL BASIN REPAIR- Estimates |                                                                                                                                                                                 |      |     |      |            |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|------|------------|
| ITEM                                                                       | CIVIL WORKS INFORMATION                                                                                                                                                         | UNIT | QTY | Rate | AMOUNT     |
| <b>1.0</b>                                                                 | <b>Preliminary and General (Show Cost Breakdown)</b>                                                                                                                            |      |     |      |            |
| 1.1                                                                        | Contractor to provide breakdown                                                                                                                                                 | Sum  | 1   |      | R -        |
| <b>Sub Total</b>                                                           |                                                                                                                                                                                 |      |     |      | <b>R -</b> |
| <b>2</b>                                                                   | <b>Site Work</b>                                                                                                                                                                |      |     |      |            |
| <b>2.1</b>                                                                 | <b>Sewer system inspections and repair</b>                                                                                                                                      |      |     |      |            |
| 2.1.1                                                                      | Break the existing concrete slab                                                                                                                                                | m²   | 3.6 |      | R -        |
| 2.1.2                                                                      | Excavate the area to expose the sewer system piping.                                                                                                                            | m³   | 22  |      | R -        |
| 2.1.3                                                                      | Inspect the sewer system to locate the source of the blockage.                                                                                                                  | sum  | 1   |      | R -        |
| 2.1.4                                                                      | Backfill the excavated area using appropriate bedding and backfill materials to support the new pipe and prevent future settling or damage, as described in the scope of works. | m³   | 22  |      | R -        |
| 2.1.5                                                                      | Reinstate the broken concrete slabs                                                                                                                                             | m³   | 3.6 |      | R -        |
| <b>2.2</b>                                                                 | <b>Roof inspection and repairs.</b>                                                                                                                                             |      |     |      |            |
| 2.2.1                                                                      | Conduct roof inspections.                                                                                                                                                       | sum  | 1   |      | R -        |
| <b>2.3</b>                                                                 | <b>Labout to replace sealant joints in the tank farm, spill basin and the manifold.</b>                                                                                         |      |     |      |            |
| 2.3.1                                                                      | Carefully remove existing sealant joints.                                                                                                                                       | m    | 300 |      | R -        |
| 2.3.2                                                                      | Clean and prepare all expansion joints.                                                                                                                                         | m    | 300 |      | R -        |
| 2.3.3                                                                      | Inspect all expansion joints for damages.                                                                                                                                       | Sum  | 1   |      | R -        |
| 2.3.5                                                                      | Insert a sealant backing cord into the expansion joint openings                                                                                                                 | m    | 300 |      | R -        |
| 2.3.6                                                                      | Inject a self-levelling silicone joint sealant to all the expansion joint                                                                                                       | m    | 300 |      | R -        |
| <b>2.4</b>                                                                 | <b>Repair Cracks in the Bund Floors and Bund Walls of the Tank Farm, Spill Basin, and the Manifold.</b>                                                                         |      |     |      |            |
| 2.4.1                                                                      | Clean the slab to remove dirt, dust, sludge, oil, and contaminants                                                                                                              | sum  | 1   |      | R -        |
| 2.4.2                                                                      | Ream the crack 20 mm wide and 10 mm deep with an angle grinder.                                                                                                                 | m    | 50  |      | R -        |
| 2.4.3                                                                      | Remove all loose material with a wire brush and a vacuum cleaner.                                                                                                               | m    | 50  |      | R -        |
| 2.4.4                                                                      | Supply, mix and apply a two-component, structural repair epoxy mortar into the reamed crack                                                                                     | m    | 50  |      | R -        |
| 2.4.5                                                                      | Smooth the two-component, structural repair epoxy mortar.                                                                                                                       | m    | 50  |      | R -        |
| <b>2.5</b>                                                                 | <b>Allowance for repairing sewer pipe defects</b>                                                                                                                               |      |     |      |            |
| 2.5.1                                                                      | Cut and remove the damaged section of the sewer pipe.                                                                                                                           | m    | 15  |      | R -        |
| 2.5.2                                                                      | Supply the necessary piping for repairs.                                                                                                                                        | sum  | 1   |      | R -        |
| 2.5.3                                                                      | Supply the necessary pipe joint, gaskets, seals and fittings (elbows, tees, couplings)                                                                                          | Sum  | 1   |      | R -        |
| 2.5.4                                                                      | Install the new section of sewer pipe, ensuring proper alignment and connection to existing infrastructure, in accordance with SANS 10400-Part P standards.                     | m    | 15  |      | R -        |
| 2.5.5                                                                      | Supply bedding sand                                                                                                                                                             | m³   | 1.0 |      | R -        |
| <b>2.5.4</b>                                                               | <b>Provision Allowance for roof repairs</b>                                                                                                                                     |      |     |      |            |
| 2.5.4                                                                      | Remove damaged roof sheeting.                                                                                                                                                   | m²   | 90  |      | R -        |
| 2.5.5                                                                      | Detach and remove rotten wood purling from the structure                                                                                                                        | m²   | 90  |      | R -        |
| 2.5.6                                                                      | Supply roof sheeting and fasteners matching the existing ones on the control room building.                                                                                     | No   | 15  |      | R -        |
| 2.5.7                                                                      | Supply wooden purling and fasteners matching the existing ones on the control room building.                                                                                    | No   | 14  |      | R -        |
| 2.5.8                                                                      | Install the new purlins and secure them with appropriate fasteners.                                                                                                             | No   | 14  |      | R -        |
| 2.5.9                                                                      | Install and fasten the roof sheeting using appropriate fasteners.                                                                                                               | No   | 15  |      | R -        |
| 2.5.10                                                                     | Supplying roof paint and painting the new roof sheeting to match the existing roof sheeting colour.                                                                             | m²   | 90  |      | R -        |
| <b>2.5.10</b>                                                              | <b>Allowance for repairing slab joints</b>                                                                                                                                      |      |     |      |            |
| 2.5.10                                                                     | Mix and apply concrete repair motar to damaged expansion joints                                                                                                                 | Sum  | 1   |      | R -        |
| <b>Sub Total</b>                                                           |                                                                                                                                                                                 |      |     |      | <b>R -</b> |
| <b>3.0</b>                                                                 | <b>Waste disposal</b>                                                                                                                                                           |      |     |      |            |
| 3.1                                                                        | Dispose waste in accordance to local manucipality requirements                                                                                                                  | Sum  | 1   |      | R -        |
| <b>Sub Total</b>                                                           |                                                                                                                                                                                 |      |     |      | <b>R -</b> |
| <b>Total</b>                                                               |                                                                                                                                                                                 |      |     |      | <b>R -</b> |