

C23030**STEENBERG GOLF COURSE DAMS****METHOD STATEMENT – FRESHWATER DAM****1 INTRODUCTION**

The Steenberg Golf Course wishes to enlarge the Freshwater Dam to 23 560 m³ to increase the storage capacity for water to be used for the irrigation of the tees and greens on the course. The design provides for a predominantly excavated dam lined with a geosynthetic composite liner covered with a soil blanket to waterproof the dam. The excavated material will be used elsewhere on the golf course or disposed of if no use for the material exists. The shape of the dam has been determined taking the playability requirements of the golf course into account.

2 CONSTRUCTION METHOD

The construction of the dam will comprise the following:

- The extent of the works area will be fenced off with Ready Fence covered with shade cloth.
- The grass/lawn will be lifted and stockpiled where it will be maintained for reuse.
- The irrigation pipes and sprinklers will be removed and stockpiled for reuse or disposed of on an off-site waste site.
- Existing services such as electricity cables, sewers, and water pipes will be exposed and re-located outside the area of the dam.
- Trees that can be replanted will be removed and stockpiled where they will be maintained for reuse.
- Other vegetation that cannot be reused will be removed and disposed of, either in the golf course compost yard or at an off-site waste site.
- The dam will be excavated and the material will be transported for use elsewhere on the golf course. Excess material will be disposed of at an off-site waste site. Some material will be stockpiled for use as the cover blanket for the liner.
- Should groundwater be encountered, sub-soil drains and a sump will be installed to keep the excavation dry for the duration of construction. The groundwater will then be pumped out onto the golf course to infiltrate and recharge the groundwater resource.
- Where required, a reinforced concrete and brick stone-faced perimeter wall will be constructed along the dam's edge.
- A brick barrier wall will be constructed around two sides of the existing pump room.
- The excavated surface will be trimmed and shaped, after which the liner will be placed and covered with material from the stockpile.
- The final trimming and site clearance will be done, after which the golf course maintenance contractor will re-establish the irrigation system and vegetation.
- As the dam will be constructed during the dry months, surface draining is not anticipated. However, should construction start or extend over a period during which rain can be expected, surface drainage channels will be provided to lead water away from the area of the works. Geofabric screens will be provided to trap sediment in the run-off water.

3 EQUIPMENT TO BE USED

The dam will be constructed using general large earthmoving equipment, including excavators, roller compactors, and trucks. The perimeter retaining wall will be constructed primarily by hand but with concrete either mixed on-site in a small mixer or imported in trucks from a ready-mix plant.

A stockpile area will be created for materials to be used in the construction of the dam. These materials will include the liner, bricks, cement, reinforcing steel, sand, stone, geofabric, and drainage pipes. The contractor may also use this area as a temporary site camp. This area will be within the overall extent of the works area.

4 WASTE MANAGEMENT

Within the stockpile area, provision will be made for refuse bins for non-recyclable and recyclable waste. These bins will need to be disposed of when full. Chemical toilets will be provided for the contracting staff.

5 TIMELINE

It is anticipated that the construction of the dam will take four to five months.