



Services Infrastructure Requirements for Proposed Tokai Picnic-Braai site realignment

Compiled by SANParks

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1. Introduction

The proposed realignment and upgrading of the Tokai Picnic-braai site will result in new service infrastructure (ablution facilities, braai sites and an internal road) being put in place. This can be seen as an overall improvement, for both Alternative 1 and Alternative 2, over the current state of the infrastructure as per the current status quo.

The infrastructure improvements are based on supply of services to the current peak 2,000 visitors per day (increasing over time to 2,500) and 620 vehicles (increasing over time to 810). These peak periods are only experienced a few times a year being the December holidays and the summer Public holidays. The majority of the midweek days are quiet with < 100 people visiting while at week-ends <1,000 visitors frequent the site.

2. Current Service infrastructure description (Status Quo)

2.1 Ablutions

The current four ablution blocks provide a very basic service. They are mostly inappropriately located - far from where most visitors congregate and one being too close to the river.. The current number of sanitary fixtures (1 WC pan for males, 2 WC pans for females, 1 urinal and no washbasins per facility) do not meet the minimum requirements of the current National Building Regulations. During peak usage periods, the septic tank soak-away systems are inadequate to address the volume of visitors. As such temporary 'port-a-loos' need to be provided as well as the septic tanks having to be emptied regularly. This both degrades the overall visitor experience of the site and results in high on-site running costs.

2.2 Braai facilities

The current 212 braai sites are randomly spaced throughout the site and are in a serious state of dilapidation. This poor state of the braai places detracts from the visitor experience and hinders proper braaiing of food. The current site to person ratio is around 10 visitors to a braai site at peak periods, which often results in overcrowding and user conflict.

2.3 Internal roads

Currently within the braai area, there are no formal internal roads. Patrons are able to drive, haphazardly through the area and this results in a 'park and braai' arrangement, whereby visitors park immediately adjacent to the individual braai places. This is firstly an inefficient use of the site as cars have a high space demand. Secondly, a 'no music' policy is in place and being enforced by TMNP staff but the policy is largely ignored by the public. This means that loud car radio/tape/CD music disturbs other users and detracts from the overall visitor experience. In addition, due to no formal internal roads existing, surface erosion of the site is difficult to manage.

3. Upgraded Service infrastructure description (Alternative 1 & Alternative 2)

3.1 Ablutions

The proposed upgrade of ablution facilities is the same for both Alternative 1 (Preferred Alternative) and Alternative 2. Of the 4 existing ablution blocks, 3 will have to be demolished and 6 additional units need to be built over time. As such, there will be 7 ablution blocks in total. The reason that the three ablution blocks need to be demolished is that two fall within the ecological corridor and the other is too close to the Prinskasteel River and cannot be linked to the proposed sewer network.

The upgrade proposes moving away from the current septic tank soak-away system and rather link the ablution blocks into the municipal sewer system. The move away from the soak-away system is seen as important due to presence of river systems and seasonally high water tables in some areas and the high maintenance cost and limited life span of soak-away systems. There are however challenges in linking to the municipal sewer network. Overall, the area is flat and the required gravity falls need to be carefully calculated. Although initial calculation do confirm that a gravity feed system is possible, a small pump might be needed to lift the effluent to a certain level so that it can flow on gravity again.

The options to connect to the wider municipal network are also limited. Although there is a main Provincial sewer line running from adjacent Porter Estate (Chrysalis Academy), on the northern side of the Prinskasteel River that is relatively straightforward to connect to, the closest connection point south of the river is on Orpen Road, over 1,000 meters to the east of the site. This means that the sewer line from the southern side of the river will have to cross the river at some point to connect to the main sewer line on the north of the site.

Figure (1) shows that the total new network of piping is 850 meters in length. The pipe diameter use will be a 200mm Ø steel pipe for the “river crossing” and between 110mm Ø and 160mm Ø underground PVC pipe for the remainder network. Where the pipe crosses the river, it will be housed in a supportive structure such as high spec gabions.

The number of sanitary fixtures provided will comply with National Building Regulations, this being a total of:

- (i) for males : 16 WC pans, 18 urinals and 17 hand wash basins; and
- (ii) for females : 25 WC Pans and 20 hand wash basins.

These items will be divided amongst the 7 ablution blocks with relatively more sanitary fixtures allocated to the ablution blocks in the more popular areas.

3.2 Braai facilities

The proposed upgraded braai facilities will be the same for both Alternative 1 (Preferred Alternative) and Alternative 2. The upgrade will see the addition of 50 braai sites to the area. The upgrade will implement two types of braai sites: A smaller family unit and then a large site for groups up to 10 persons. The family unit will have a raised hardened durable floor, a concrete braai, timber logs planed square and set on a footing as the bench seats with a timber table, and a timber pergola structure for shade, where required, which will cover the table and seats area. The larger group sites will have a compacted laterite area with a concrete braai, timber logs planed square as bench seats on ground as well as round logs strategically placed as seats, and a timber pergola structure for shade where required.

3.3 Internal roads

The proposed internal road network, and the subsequent user experience, differs between Alternative 1 (Preferred Alternative) and Alternative 2 in terms of layout, but not the materials used. Both roads will be constructed with a hardened laterite / gravel surface, with a soft delineation of log and bollard edging.

3.3.1 Layout Alternative 1 (Preferred Alternative)

The proposed internal single road of 4m wide is a circular route of 1.2km in length, with 7 permanent parking areas (totaling 10,500m²) accommodating 470 cars. This will result in visitor's vehicles being separated from the individual braai sites. An additional 5 parking areas (totaling 7,500m²), accommodating 336 cars will be available as over flow parking to be used during peak periods.

3.3.2 Layout Alternative 2

The proposed internal single road of 4m wide is a circular and winding route of 4.5km in length. No group parking pays are provided as patrons will park at the individual braai site, as is the current practice.