

13.3	SECTION 78 (4) REPORT FOR THE PROVIDING OF SUFFICIENT PUBLIC PARKING
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Collaborator No:

IDP KPA Ref No:

Meeting Date:

1. SUBJECT: SECTION 78 (4) REPORT FOR THE PROVIDING OF SUFFICIENT PUBLIC PARKING

2. PURPOSE

To report to Council in term of a Section 78(4) report on the Section 78(3) investigation into providing of sufficient parking in the Greater Stellenbosch Municipal Area.

3. DELEGATED AUTHORITY

Council.

4. EXECUTIVE SUMMARY

Council has commenced with the upgrading of parking provision. Due to service of parking provision being a Local Government Competence in terms of The Constitution a Section 78 Assessment process needs to be followed. Council has commenced with the Section 78(1) approach and in February of 2018 Council has decided to also look at the provision of parking via an external mechanism due to the high costs involved in provide parking garage type parking.

The Section 78(3) process is now complete and the following deals with the assessments of External Mechanisms of Parking provision.

It is however very important to note that parking is firmly integrated with various other transport related functions to be provide, which includes, Traffic Flow management, Public Transport Creation and Management, Non-Motorised transport such as walking, cycling, wheel chair transport and small wheel methods of transport such as role skates, skateboard, scooters and lastly also creating areas which promotes walking rather than using vehicles such as the Transit Oriented Development areas. The provision and sizing of parking must relies heavily on the speed at which cars can park and leave again and the proximity of parking with, as many as possible, other modes of transport.

In the assessment of providing parking through an external mechanism (Annexure B), the placement and quantity of parking has been seriously considered. In addition, it is important that the speed of absorption of vehicles is of primary importance to negate traffic jams in especially primary routes such as Bird -, Dorp and Piet Retief streets. The cost of parking is very high and the provision of the average parking bay within a parking garage is estimated at R150 000 per vehicle. Parking Garage are chosen due to the smaller footprint of such a parking mechanism.

Assessments have indicated that the provision of Parking Garages through an external mechanism such as a private company through a Build, Own, Operate and Transfer (BOOT) mechanism takes away most of the Risk from the Municipality and also provide parking at a reasonable cost to the public.

It is also true that the cost of providing a total solution is not within the reach of Stellenbosch Municipality and needs to be a synchronised exercise between National Government, Provincial government, SANRAL, PRASA in order to provide proper Public Transport and proper capacity of the major feeder routes into Stellenbosch.

A start with the solution can however commenced with. It is therefore proposed that Parking Garages be provided through an External Mechanism at the Municipal parking next to Eikestad Mall and at Techno Park. This has been chosen due to speed of absorption of vehicles required and close proximity to various public transport facilities

in the case of Van der Stel, and the severe lack of public transport at Techno Park, but still an important parking provision hub in future.

It is further proposed that were open one level of parking is to be provided, extended or formalised, that this be done on an internal mechanism. Existing parking areas at the Hoffman Road (Dennesig Parking), Du Toits Road (Aandklas), parking at Mosque & Church next to Bird Street, north of Pick 'n Pay, back of Municipal Court in Stellenbosch and the Old Tennis Courts at Franschhoek be upgraded. It is also proposed the provision of parking spaces at space bounded by Borchard Road, Andringa Street and Banhoek Road as well as the space bounded by Jan Cilliers Road, Ds Botha Road and Muller Road be investigated and implemented.

It is expected that some 600 (upgraded and new) open space parking can be provided.

If Council so decides, then the next step for the services being provided through an external mechanism would be to draw up a Service Deliver Agreement in terms of MSA Section 80. This has to be taken through a public participation process. When formally accepted a bidding process will be conducted to obtain a preferred service provider. Once all detailed of providing such a service, the preferred service provider will then build the parking garage, own this, operate this and transfer this to Council after a proposed period of 20 years.

5. RECOMMENDATIONS

- (a) that this report be noted;
- (b) that Council accepts that all the requirements of Section 78(3) (Annexure A) in terms of investigating the feasibility of the provision of sufficient parking, has been complied with;
- (c) that Council accepts that parking forms an integral part of the total Mobility concept within Greater Stellenbosch Area and relates to other major parts such as: Traffic Flow, Public Transport (PT), Non-Motorised Transport (NMT), Transit Oriented Development (TOD), and Movement of Disabled Persons (normally seen as a primary part of NMT);
- (d) that Council notes that in order to alleviate the parking process as a whole, matters such as PT, NMT, TOD must also be addressed in synchronisation, as this will directly affect the quantity and positioning of parking;
- (e) that Council, in terms of the Municipal Systems Act (MSA), Act 32 of 2000, as amended, Section 78(4), accepts that the method of providing parking generally be considered as follows:
 - (i) Provision of open one level parking space needs, be performed on an internal mechanism;
 - (ii) Provision of multi storied parking space needs, be performed on an external mechanism.
- (f) that Council approves the provision of parking as a first phase as mentioned hereunder, which must be in line with future mobility developments, as the final mobility status can by nature not be resolved at this time;
- (g) that Council proceed with the initial provision and upgrade of parking spaces as follows:
 - (i) that the legislative process be commenced with to provide multiple level parking, and management thereof, utilising an External Mechanism of parking in the following areas:

-
- (1) Eikestad Mall Parking area bounded by Andringa -, Victoria, and Ryneveld Streets. Portion of erf 1692, erven, 1969, 1972, 1973, 1974, 1975, 1976, 6402 and 6636; and
 - (2) Techno Park area, considering the area bounded by Tegno Road, Termo Avenue and Proton Road. Portion of erf 13171
- (ii) that the following areas, as a first phase, be upgraded and/or developed as a single layer open space parking area, utilising an internal service delivery mechanism:
- (1) Dennesig Existing Parking Area, entrance in Hoffman Road, Part of Erf 235;
 - (2) Municipal Court Existing Parking Area, entrance from Papegaai Road, **Erf 528**;
 - (3) Aandklas Existing Parking Area, entrance from Du Toit Road Part of Erf 235;
 - (4) New Parking Area Bounded by Borcherd Road and Andringa Street to be considered as an extension of the public parking on erf 2529;
 - (5) New Parking Area Bounded by Jan Cilliers Road, Ds Botha Road and Muller Road to be considered as new parking area. Part of Erf 175/0; and
 - (6) Parking area to be upgraded at the old tennis courts, Franschhoek, Erf 1538.
- (h) that Council proceeds with the setting up of a Service Delivery Agreements for the provision of Bulk Parking, as required by Section 80(1) & (2), of the MSA and in particular section 80(1)(b) (which prescribes an SDA with a Private Company) for the areas mentioned under 4.7.1;
- (i) that the Service Delivery Agreement be approved by Council as a draft SDA prior to Community Participation takes place; and
- (j) that the matter of providing a synchronised total mobility network be urgently pursued with all the role-players participating in the mobility arena which includes Public Transport, Non-Motorised Transport, Transit Oriented Development, Parking and Universal Access.

6. DISCUSSION / CONTENTS

6.1 Background

Previously Council accepted the investigation into the problem of parking within a study required by the Municipal Systems Act (MSA) section 78 (1) process. The basic requirements of parking was investigated and a Section 78(2) report was submitted to Council on 28 March 2019 and the following outcomes were debated:

(i) Aspects Reviewed

The above report has provided an overview of the extent of the parking service as identified in Chapter 1 of this report, considered the process that the Municipality must follow in terms of section 78(1) of the MSA, and then reviewed each issue listed by section 78(1). These include the costs and benefits of providing the service, the Municipality's capacity to provide the service, and international and local trends with respect to transport service provision.

(ii) Conclusions

The conclusions reached from interviewing key municipal officials and considering each of the aspects required by S78 (1) are that the Municipality does not currently have the financial resources or organisational capacity to internally provide a public transport service. The major factors counting against it are the increased budget required to cover the establishment and recurring costs of the service, the significant increase in staffing that would be required and a national shift in the approach to sustainable transport.

Irrespective of the mechanism selected to deliver a parking service (internal vs. external), the Municipality should consider pursuing an alternative approach to parking service in and around the Stellenbosch and Franschhoek CBD, based on the experience of other cities and towns. The experience of Boulder in the USA can be beneficial as it has become world renowned for its sustainable transport system, that stroke a good balance between non-motorised transport modes and the private vehicle.

At this time Council made the following resolution:

“16TH COUNCIL MEETING: 2018-03-28: ITEM 7.6.2

RESOLVED (nem con)

- (a) that this report be noted;
- (b) that Council notes the attached report on the providing of sufficient public parking;
- (c) that Council accepts that all the requirements of Section 78(1) in terms of investigating the feasibility of the provision of sufficient parking have been complied with;
- (d) that Council, in terms of the Municipal Systems Act, Act 32 of 200, as amended, Section 78(2), accepts the scenario to “after having applied subsection (1), a municipality may, before it takes a decision on an appropriate mechanism, explore the possibility of providing the service through an external mechanism mentioned in section 76 (b).”;
- (e) that Council formally proceeds to the Municipal Systems Act, Section 78(3) process of exploring the possibility of providing the municipal service of parking through an external mechanism; and
- (f) that a report on the outcome of this investigation be provided to Council, upon the completion of a Section 78(3) exercise in order for Council to take a Section 78(4) decision.”

The requirements of the Section 78(3) have been followed and the continuation of the report below shows the conclusions reached after the studies required have been conducted.

At this point on very big aspect has to be looked at and that is that parking is a part of an integral set of actions that is termed the Mobility Process. By altering one part the parts change, so if a certain desired outcome is sought, all of the parts of Mobility must be addressed simultaneously. These parts include:

- Traffic Flow
- Public Transport (PT)
- Non-Motorised Transport (NMT)
- Transit Oriented Development (TOD)
- Parking
- Universal Access

It is therefore critical to note that the position, the quantity, the quality of such a subcomponent provided impacts on the other parts of the Mobility Process

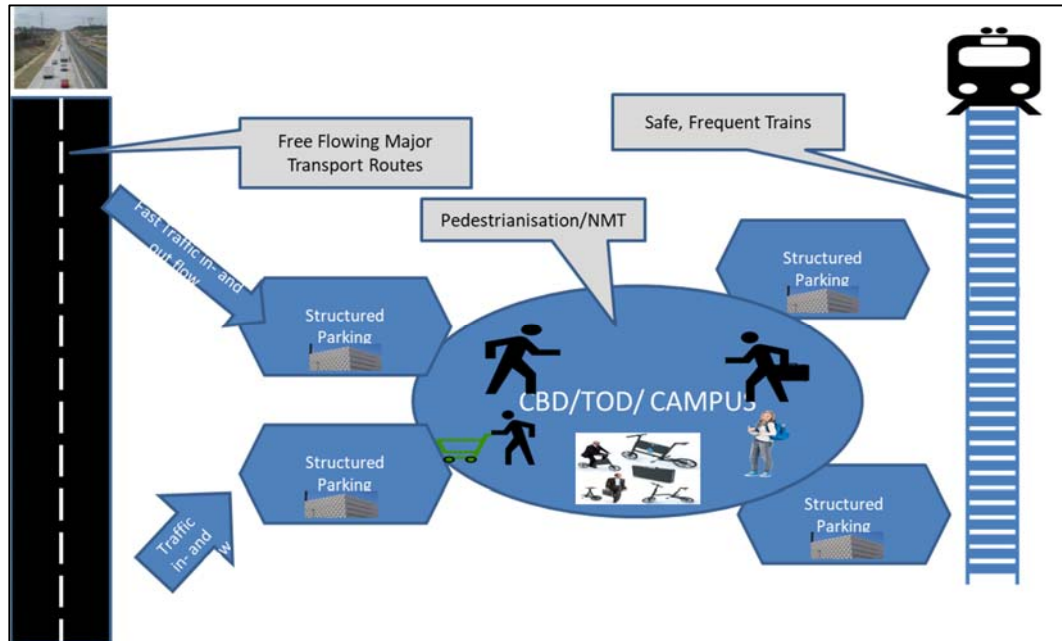


Figure 5.1 Interrelation of Mobility with Stellenbosch

The provision of Bulk Parking has been studied and the impact thereof on other comments has also been looked at.

6.2 Provision of Parking through an External Mechanism

The following figures provides the base of the Section 78(2) report

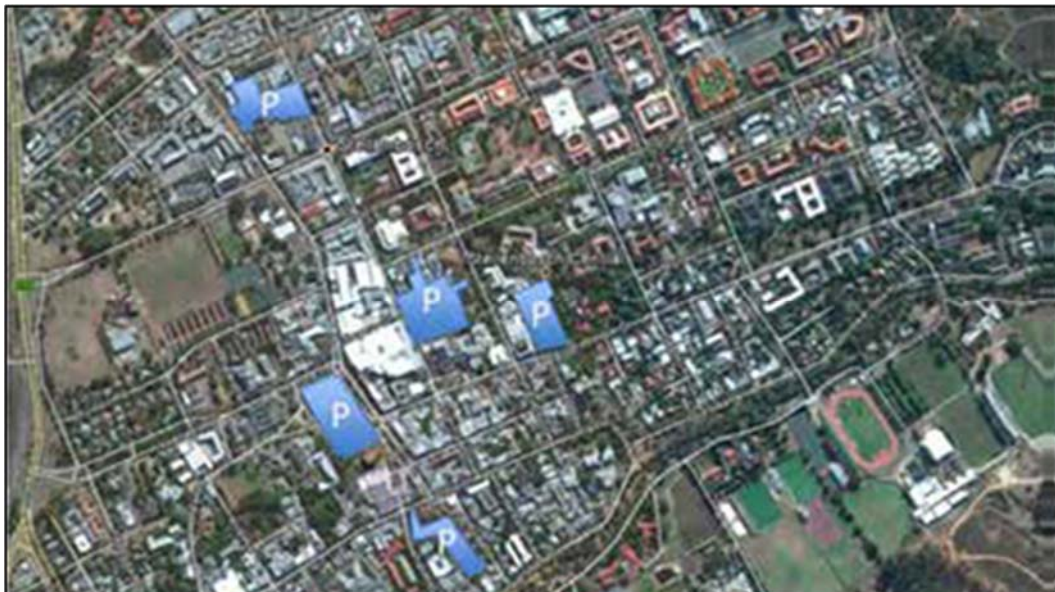


Figure 5.2 Parking Detail within Stellenbosch Town



Figure 5.3 Parking Detail within Franschhoek



Figure 5.4 Parking Detail within Klapmuts

As mentioned above the positioning of parking, its ability to absorb vehicles at a required rate and also to release vehicles at a required rate is very important in order to assist traffic flow upon the major routes feeding the Greater Stellenbosch Municipal Area.

The inter role-play of the various components are shown below under Figure 5.5:

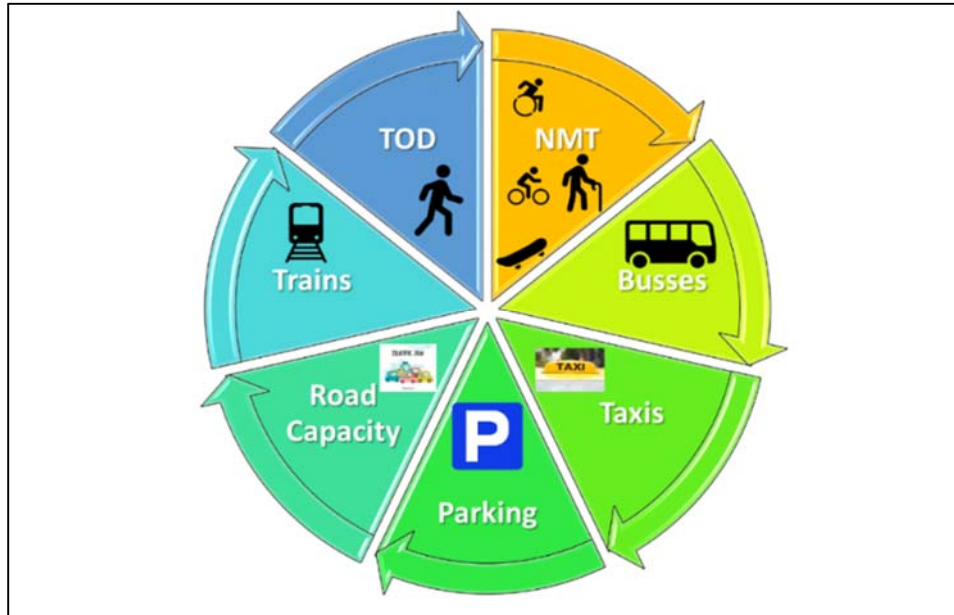


Fig. 5.5 Parking Interrelationship with Modes of Transport

The provision of parking must be in balance with the components listed above. Currently it is found that there are the following shortages:

Table 5.1 Parking Needs

Class	Parking Spaces
Techno Park Informal	1 700
Techno Park Formal	700
Stellenbosch Informal	2 200
Stellenbosch Formal	10 000
University Informal	5 800
University Formal	1 900
Total Global Parking Spaces Needed within Stellenbosch Town at current Vehicle Flow	9 700
Total Existing Parking Spaces	12 600

In addition to parking we also have a heavy traffic congestion, which means we could increase road conditions to accommodate all traffic.

In order to fix this we have two main options:

- Provide 9700 more parking spaces
- Provide better major rout conditions

BUT,

Currently one of the major problems is that incoming traffic cannot find parking fast enough as the capacity of minor routes are not sufficient and the absorption rate of current parking areas is not sufficient.

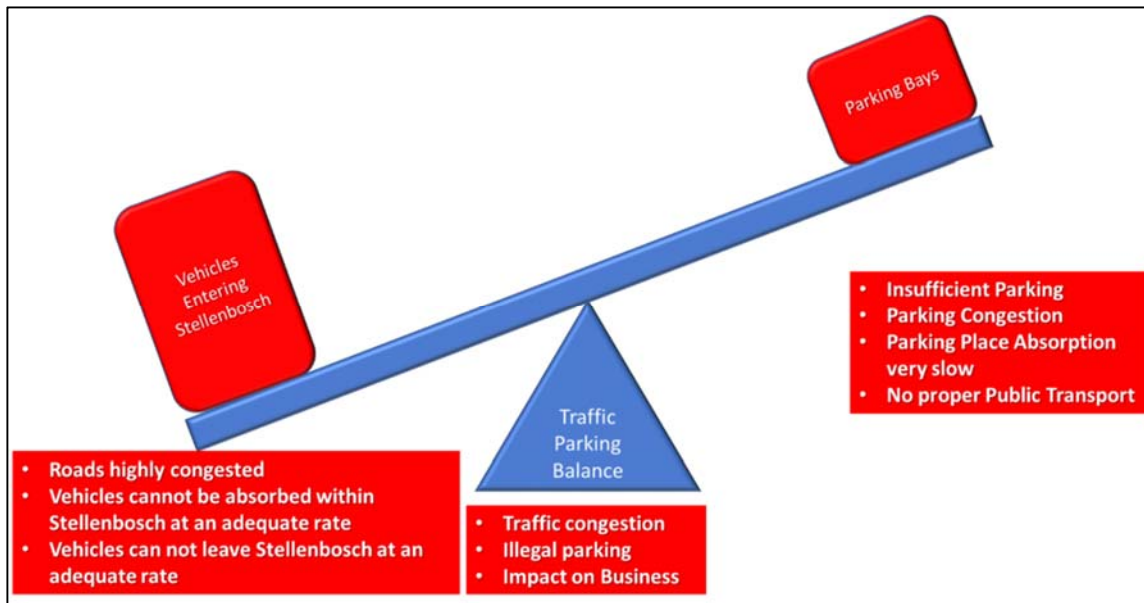


Fig.5.6 Current state of Parking and Traffic Flow within Stellenbosch

We also could look at this problem differently and try to reduce traffic coming to Stellenbosch, thereby reducing the needs for parking. We can do this by ensuring that Public Transport is improved.

Alleviating internal traffic congestion can be done by placing parking facilities close to major routes and force/ allow people to reach their working/study places by using another mode of transport from major parking places to place of work/study. We therefore have to do a double approach by reducing traffic and then by increase parking to the required needs.

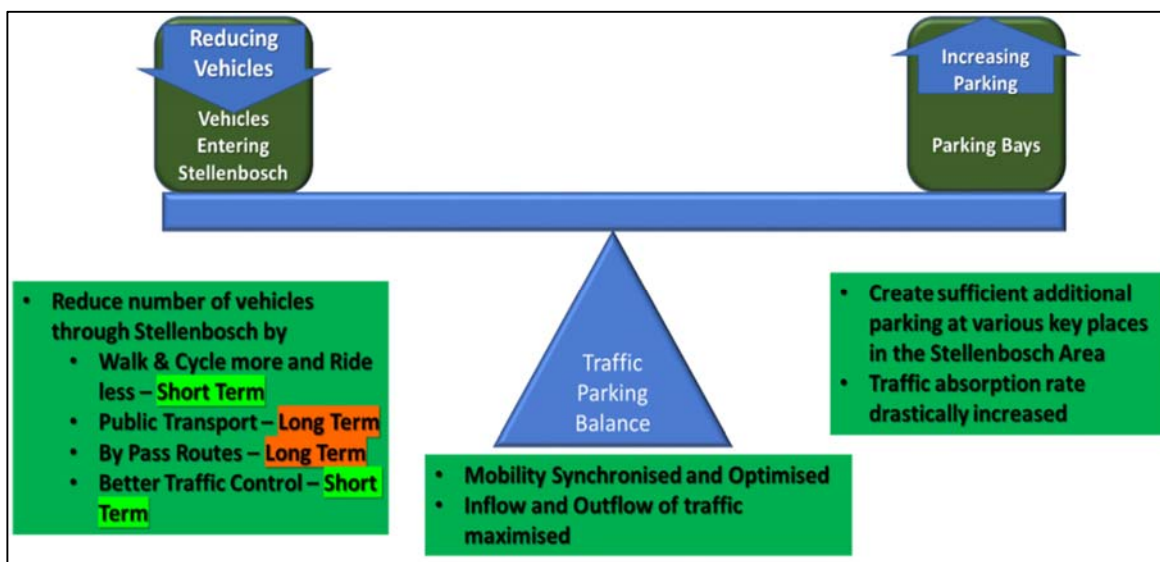


Fig.5.7 Somewhat reducing traffic and somewhat increasing parking

To this end, we have identified other possible parking areas in addition to the historical current parking spaces:

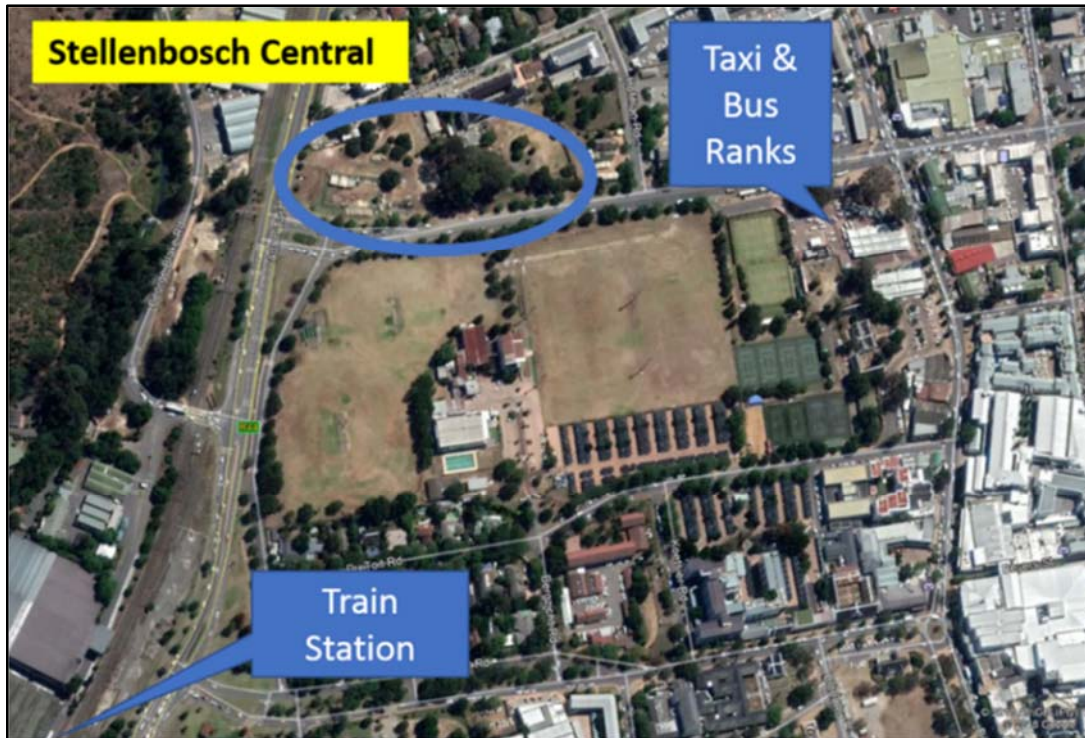


Fig. 5.8 Van der Stel Area Potential Site



Fig. 5.9 R304 / Bottelary/Kromme Rhee Intersection Potential Site



Fig. 5.10 Techno Park R44 Entrance Parking Potential Site

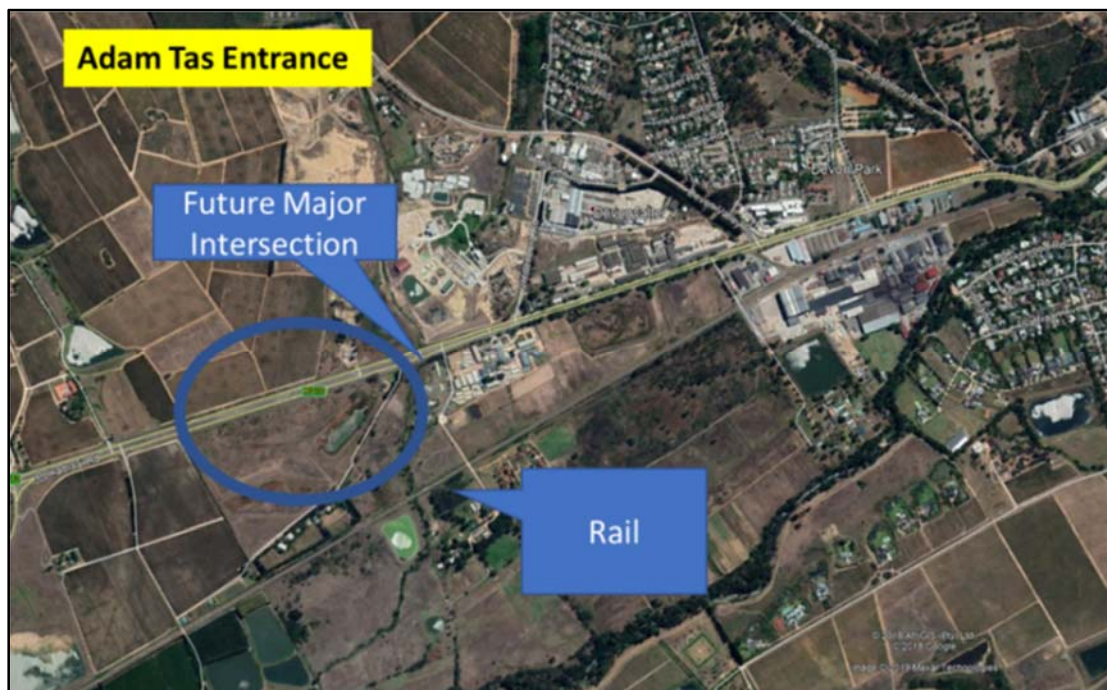


Fig. 5.11 Adam Tas Bulk Parking Potential Site



Fig. 5.12 Klapmuts Bulk Parking Potential Site



Fig. 5.13 Franschhoek Bulk Parking Potential Site

All of these sites have investigated and have been scored along the following criteria:

- Reduction of Traffic on major routes,
- Allowing the CBD to become less congested,
- Contributing to reduction of vehicles.
- Contributing to an increased NMT
- Synchronisation with TOD
- Easy transfer of Mobility Mode:
 - Trains
 - Taxis
 - Busses

Each parking site is evaluated by giving points for the above. The site scoring the most points would therefore indicate a site that would be most useful for reducing traffic on the major routes, allowing changing modes from vehicles to many of the other mobility modes being targeted.

Table 5.2: Assessment of Various Parking Space Positions

Nr	Parking Site	Saving of R44 (R45 within Franschhoek) Central Route Trips	Saving of CBD Trips	Alleviating Parking Shortage within CBD	Mode Support					Size Foot Print sq m	Points	Ranking	Property Available
					Vehicles	NMT	Trains	Taxis	Buses				
1	VDS North of Merriman	High	Low	High	High	High	High	High	High	10 000	25	1	Yes
2	Bloemhof	Low	Low	Medium	Medium	High	Low	Medium	Medium	4 000	16	8	Yes
3	Eikestad Mall	Low	Low	Medium	Medium	High	Low	Medium	Medium	10 000	17	7	Yes
4	Stelkor	Low	Medium	Medium	Medium	Medium	Low	High	Medium	4 000	17	7	Yes
5	Die Braak	Low	Low	High	High	High	Medium	High	High	10 000	19	5	Yes
6	Checkers	Low	Low	Medium	High	High	Medium	High	High	2 000	19	5	Yes
7	Pick n Pay	Low	Medium	Medium	Medium	High	Low	High	Medium	7 000	18	6	Yes
8	Techno Park	Medium	Medium	Medium	High	Low	Low	High	High	7 000	19	5	Yes
9	Dennesig Parking	Medium	Medium	High	High	High	Medium	High	High	6400	21	4	Yes
10	R304 Entrance	High	Medium	Medium	High	Low	High	High	High	12 000	23	3	No Munic Properties
11	Adam Tas Entrance	High	Medium	Medium	High	Low	High	High	High	12 000	23	3	Yes
12	Klapmuts	High	Medium	High	High	Low	High	High	High	12 000	25	1	Yes
13	Franschhoek R45	High	High	High	High	High	Low	High	High	6 000	24	2	No
14	Franschhoek Tennis Courts	Medium	High	High	High	High	Low	High	High	6000	23	3	Yes

From the above a conclusion can be drawn on which parking spaces should be taken on first.

In the wider perspective and looking into the better positioning of garages, the following requirements have been defined:

- First phase of Parking Garages to be placed close to multiple modes of transport
- First phase of Parking Garages must support the reduction of transport flows within the major routes connecting Stellenbosch
- First phase of Parking Garages must have the best possible vehicle absorption and disbursement
- First phase of Parking Garages must have a prospect of maximum viability
- Second or further phases only to be launched if many of the further aspects of mobility and Town Planning has been introduced such as:
 - Working Public Transport
 - TOD culture established
 - NMT areas created

To this end it is proposed to start off with the following as a First Phase approach:

Table 5.3: First Phase of Provision of Parking

Nr	Site	Description	Parking Spaces	Method to be Used	Comments
1	Stellenbosch CBD	Multiple levels (some below grade)	2000	External Mechanism via SDA with Private Sector	Provide only 2000 parking bays, but at same time commence with proper public transport provision, curbing cars used by students
2	Techno Park	Multiple levels (some below grade)	1200	External Mechanism via SDA with Private Sector	Since Techno Park already has a shortage of 1700 parking spaces and currently no prospect of major public transport. Adam Tas Link will allow traffic relief on R55
3	Klapmuts	Only Ground Level – Open parking	100	Internal mechanism	Will address major parking provided when all developments have been launched. Provide parking for Overnight Facilities for trucks
4	Franschoek	Only Ground Level – Open parking	200	Internal mechanism	Prepare old tennis courts for parking provision in order to draw vehicles away from Main Street and to facilitate more parking for tourists
5	TOTAL		3500		

6.3 Environmental implications

It is expected that the impact on the Environment will be lessened by Parking Garages, since less CO and CO₂ will be generated through vehicles finding parking space quicker as well as the NMT scenario being implemented within the core of the University

6.4 Financial implications

The initial Operating Business Plan will give an indication of the direct operating costs at a later stage. The operating income for the Section 78(1) report has been estimated to be R3,650,000 per month for an initial 2200 parking places. There seems to be a viable business case for the provision of these parking facilities from initial assessments.

Table 5.4 below provides possibilities of initial parking facilities to be established and probable economic viability. It assumes bond loans can be obtained at 10% and redeemed over 20 years. The occupancy rate is set at 50%. It estimates each parking bay to contribute R150 000 to the cost of the Parking Garage.

Table 5.4: Costing of four Projects to catered for on First Phase of Parking Provision

	Closed Garage equivalent in US, 5 levels at avg 400 vehicles per level	Proposed size of Garage	R150 000 per parking bay for Multi Story Parking; R1500 per bay for single level open parking	R6750 operating cost per parking bay	Avg parking tariff per hour	% of time that a vehicle is parked on a park space over 24 hours	Parking Income over 260 work days per annum at the chosen occupancy rate based on 24 hours	Annual Revenue minus Annual operating Cost	Bond repayments over 20 years at 10% interest rate	Net Revenue minus Annual Debt Coverage (parkin rate has been raised to the nearest cent to make this value positive)
Site	Description	Parking Spaces	Total Bond Issue Amount	Annual Operating Costs	Parking Tariff/ hour	Occupancy Rate	Annual Revenue	Net Revenue	Annual Debt Service & Coverage	Net Income Surplus/ (Deficiency)
Van der Stel Area	5 levels (2.5 below grade)	2000	R 300 000 000	R 13 500 000	R 7.74	50%	R 48 297 600	R 34 797 600	R 34 740 768	R 56 832
Eikestad Mall	4 levels (1.5 below grade)	2000	R 300 000 000	R 13 500 000	R 6.45	60%	R 48 297 600	R 34 797 600	R 34 740 768	R 56 832
Techno Park Area	5 levels (2.5 below grade)	1200	R 180 000 000	R 8 100 000	R 7.74	50%	R 28 978 560	R 20 878 560	R 20 844 456	R 34 104
Klapmuts	Only Ground Level – Open parking	100	R 150 000	R 675 000	R 2.22	50%	R 692 640	R 17 640	R 17 364	R 276
Franschoek	Only Ground Level – Open parking	200	R 300 000	R 1 350 000	R 2.22	50%	R 1 385 280	R 35 280	R 34 740	R 540
TOTAL		5500	R 480 000 000	R 21 600 000			R 77 276 160	R 55 676 160	R 55 585 224	R 90 936

6.5 Legal Implications

- a. The Constitutional, Act 108 of 1996, as amended, States under Schedule 5B, inter alia:

Part B

The following local government matters to the extent set out for provinces in section 155(6)(a) and (7):

- Traffic & Parking
- b. The Municipal System Act, Act 32 of 2000, has reference and in Particular:
- i. Section 78(3) and (4)
 - ii. Section 76, 77

These sections are discussed under Item 5.1

6.6 Staff Implications

An External Mechanism of the Provision and Operations of Parking Garages to be used as well as an External mechanism of operating open parking space. There wold therefore be no impact on Municipal Staff

6.7 Risk Implication

The risk of inadequate parking and unhealthy components thereof, are reduced.

6.8 Previous / Relevant Council Resolutions:**6.8.1 Section 78(1) commencement**

12TH COUNCIL: 2017-09-27: ITEM 7.6.1**RESOLVED** (majority vote with abstentions)

- (a) that a Section 78 process be launched and that an internal parking service delivery increase be investigated through the Section 78(1) approach;
- (b) that parking service delivery increase be based on the towns of:
 - i) Stellenbosch
 - ii) Klapmuts, and
 - iii) Franschhoek; and
- (c) that a formal report be submitted to Council as required by Section 78(2), which will indicate the best way of rendering internal parking and any recommendations to a possible external method of rendering parking services.

Meeting:	12 th Council: 2017-09-27	Submitted by Directorate:	Engineering Services
Ref no:	17/2/3/6	Author	D Louw
Collab:	538693	Referred from:	Mayco: 2017-09-13

6.8.2 Section 78(2) Resolution

“16TH COUNCIL MEETING: 2018-03-28: ITEM 7.6.2

RESOLVED (nem con)

- (a) that this report be noted;
- (b) that Council notes the attached report on the providing of sufficient public parking;
- (c) that Council accepts that all the requirements of Section 78(1) in terms of investigating the feasibility of the provision of sufficient parking have been complied with;
- (d) that Council, in terms of the Municipal Systems Act, Act 32 of 200, as amended, Section 78(2), accepts the scenario to “after having applied subsection (1), a municipality may, before it takes a decision on an appropriate mechanism, explore the possibility of providing the service through an external mechanism mentioned in section 76 (b).”;
- (e) that Council formally proceeds to the Municipal Systems Act, Section 78(3) process of exploring the possibility of providing the municipal service of parking through an external mechanism; and
- (f) that a report on the outcome of this investigation be provided to Council, upon the completion of a Section 78(3) exercise in order for Council to take a Section 78(4) decision.”

6.9 Comments from Executive Management:**6.9.1 Director: Infrastructure Management**

Writer of this report

6.9.2 Director: Planning and Economic Development:

Meeting held with Directors on 1 November 2019

6.9.3 Director: Community & Protection Services:

Meeting held with Directors on 1 November 2019

6.9.4 Director: Corporate services

Meeting held with Directors on 1 November 2019

6.9.5 Chief Financial Officer

Meeting held with Directors on 1 November 2019

6.9.6 Municipal Manager

Meeting held with Directors on 1 November 2019

APPENDICES

ANNEXURE A: Providing bulk parking for Stellenbosch Municipality Section 78 (3) Report

ANNEXURE B: The Provision of Parking Facilities and Parking Management Services in Stellenbosch Municipality: Section 78 (1) Assessment

ANNEXURE C: Notice 21/2018 for Public Participation (Eikestad Nuus 12/7/18)

FOR FURTHER DETAILS CONTACT

NAME	Deon Louw
POSITION	Director: Infrastructure Services
DIRECTORATE	INFRASTRUCTURE SERVICES
CONTACT NUMBERS	021 808 4004
E-MAIL ADDRESS	Deon.louw@ Stellenbosch.gov.za
REPORT DATE	01 February 2020

ANNEXURE A

**PROVIDING BULK PARKING
FOR
STELLENBOSCH MUNICIPALITY
SECTION 78(3) REPORT**

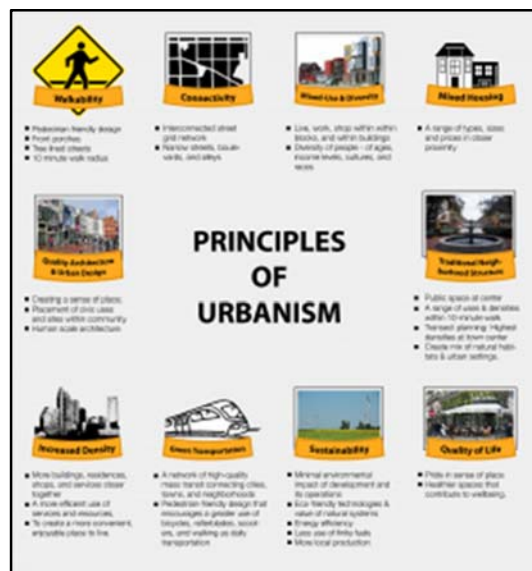


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Chapter 1: Introduction



1. Introduction

1.1 Mobility

Mobility in Stellenbosch is a challenge and generally not sustainable, given a 3% annual growth in population as well as the addition of 2,000 households per annum. We need to do things differently, recognising the need for an integrated approach across all modes. At the outset, a clear vision needs to be developed and embraced by the Stellenbosch Municipality as well as Stellenbosch University. In order to make meaningful progress and create a more sustainable environment, visionary leadership will also be required.

Cognisance needs to be taken of current challenges, specifically regarding

- Congestion along major arterials
- CBD circulation
- Parking availability
- Lack of public transport options
- Discontinuity in NMT infrastructure
- Universal Access

1.2 Transportation options & considerations

It is an accepted fact that the continuous provision of road infrastructure to primarily suit the private vehicle is not sustainable. However, a paradigm shift is required to change the way we think as both users and implementing authorities.

There are various form giving elements one has to consider – and then ensure that the various transportation elements are put in place in an integrated manner to improve viability of the individual components.

The various elements to consider and integrated in execution of actions, include the following:

Arterial management:

- Principle:
 - o Optimise flow of traffic through real time systems
- Continue to modernise and upgrade Urban traffic control and remote monitoring systems

Parking Management

- Principle:
 - o Provide Parking structures as physical form-giving nodes
 - o Develop a Municipal-wide parking application
- Enclose larger parking areas with self-measurement systems (recall research study showing linkage and first-order costs estimates)
- Parking intelligence – provides information regarding parking availability to enable a reduction in traffic circulation looking for parking. This intelligence should include parking availability for new structured parking areas, such as Eikestad Mall, larger enclosed parking areas, and on-street parking (through integration with current Spatial Plan).

- Consider differentiated parking (e.g. student long term parking, tenants daily parking, short term visitors to university or retail)
- Principle decisions need to be taken e.g. by the University regarding ownership of vehicles by students – which has a direct link to parking demand.

Public Transport options:

- Principle:
 - o Develop public transport options for CBD circulation
- External Public Transport should largely terminate at e.g. structured parking nodes (e.g. from Paarl, Somerset West, Kuilsriver etc)
- CBD circulation options should be provided from these parking nodes
- CBD circulation should also be devised as to linking the main attractors
- Devise a role for the local minibuss taxi operators

Non Motorised Transport(NMT) (Microtransit)

- Principle:
 - o Plan for and embrace the specific role of micro transit and the last mile transport options
- E-scooters – ensure that bylaws are in place. Consider relevant infrastructure e.g. bicycle lanes, storage areas (also at structured parking areas), as well as law enforcement aspects
- E-vehicles – consider role of slightly larger vehicles such as “mellow cabs”.
- Provide micro-transit options as provision of mobility from and between form-giving elements i.e. movement from structure parking into town, as well as circulation in town.

Land use

- Pedestrianisation of areas
- Closing off or limiting access to certain parts (Town or campus). Prohibit student parking – which will result in higher demand at structured parking.

Transportation Data Centre

- Principle:
 - o Consider a data and operations centre for monitoring and managing mobility
- Develop the framework for a future Mobility-as-a-Service (MaaS) operator
- Partnership with the Stellenbosch Smart Mobility Lab(SSML) in monitoring and developing the “living laboratory” environment
- Consider secondment to SSML for general support, and continuous development of Stellenbosch Network model.

There is nothing new about all that is being listed above. However, the success of addressing these components depends on all of these pointing back to the same principles and “big picture”. A depiction of what one is trying to convey, is provided below. Furthermore, phased implementation is most certainly a reality – however, if some of these interventions are not executed in parallel, it cannot be successfully implemented (i.e. the carrot and stick need to be introduced simultaneously – albeit in phases).

The vehicle to attain this, must surely be the Integrated Transport Plan (ITP) as component of the IDP as well as the Spatial Development plan (SDF).

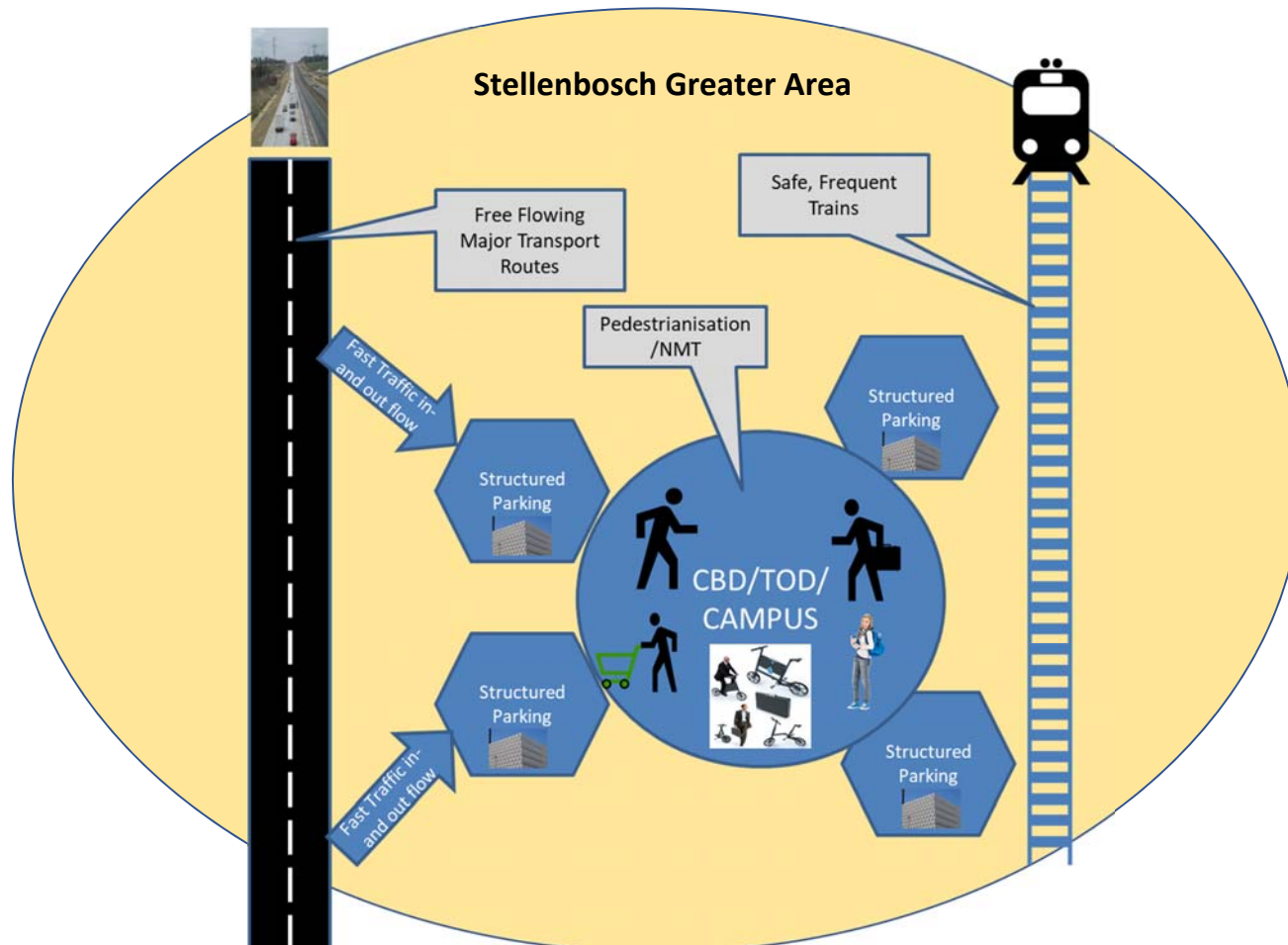


Fig.:1.1 Conceptual depiction of form giving elements

More on parking approach

- Consider overall policy (and future policy/ies) to estimate demand
- Convert to peak hour demand
- Superimpose on network and determine regional impact/distribution. Assumptions need to be made w.r.t. Origin and Destination. Code into existing demand model
- Do assignment for peak periods to determine regional distribution and ability of regional road network to accommodate redistribution of trips
- Consider impact of new parking structure/s on immediate environment
 - Ensure adequate access to mobility route/s
 - Ensure sufficient access points into building to ease traffic circulation in vicinity of structure
- Traffic analysis therefore at two levels:
 - Regional demand model (e.g. exiting Emme/4 model)
 - Local traffic analysis on intersections in immediate vicinity

Chapter 2: Executive Summary



2. Executive Summary

Council has commenced with the upgrading of parking provision. Due to service of parking provision being a Local Government Competence in terms of The Constitution a Section 78 Assessment process needs to be followed. Council has commenced with the Section 78(1) approach and in February of 2018 Council has decided to also look at the provision of parking via an external mechanism due to the high costs involved in provide parking garage type parking.

The Section 78(3) process is now complete and the following deals with the assessments of External Mechanisms of Parking provision.

It is however very important to note that parking is firmly integrated with various other transport related functions to be provide, which includes, Traffic Flow management, Public Transport Creation and Management, Non-Motorised transport such as walking, cycling, wheel chair transport and small wheel methods of transport such as role skates, skateboard, scooters and lastly also creating areas which promotes walking rather than using vehicles such as the Transit Oriented Development areas. The provision and sizing of parking relies heavily on the speed at which cars can park and leave again and the proximity of parking with, as many as possible, other modes of transport.

In the assessment of providing parking through an external mechanism, the placement and quantity of parking has been seriously considered. In addition, it is important that the speed of absorption of vehicles is of primary importance to negate traffic jams in especially primary routes such as Bird -, Dorp and Piet Retief streets. The cost of parking is very high and the provision of the average parking bay within a parking garage is estimated at R150 000 per vehicle. Parking Garage are chosen due to the smaller footprint of such a parking mechanism.

Assessments have indicated that the provision of Parking Garages through an external mechanism such as a private company through a Build, Own, Operate and Transfer (BOOT) mechanism takes away most of the Risk from the Municipality and also provide parking at a reasonable cost to the public.

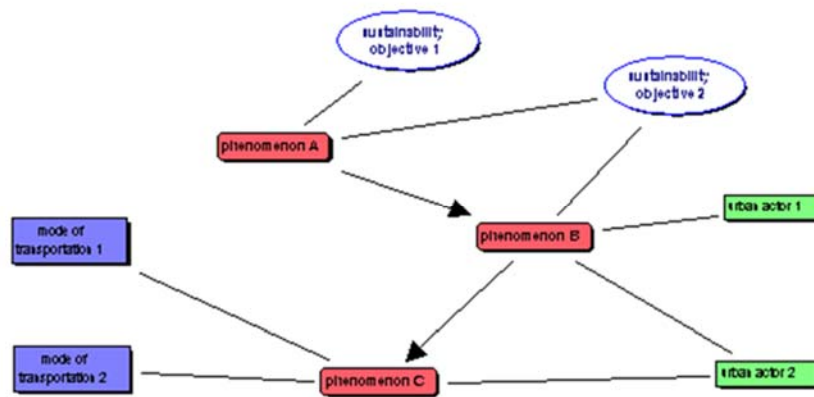
It is therefore proposed that Parking Garages be provided through an External Mechanism at or near Van der Stel and at Techno Park. This has been chosen due to speed of absorption of vehicles required and close proximity to various public transport facilities in the case of Van der Stel, and the severe lack of public transport at Techno Park, but still an important parking provision hub in future.

It is further proposed that were open one level of parking is to be provided, extended or formalised, that this be done on an internal mechanism.

If Council so decides, then the next step for the services being provided through an external mechanism would be to draw up a Service Deliver Agreement in terms of MSA Section 80. This has to be taken through a public participation process. When formally accepted a bidding process will be conducted to obtain a preferred service provider. Once all detailed of providing such a service, the preferred service provider will then build the parking garage, own this, operate this and transfer this to Council after a proposed period of 20 years.

Council further provide more parking at centre points to the CBDs and University, but that it be noted that the number and position should be carefully chosen since the parking spaces needed, will probably reduce if the other forms of mobility is needed. In this sense it is proposed that the Eikestad Mall parking be enlarged and that certain existing single layer parking be upgraded and a few new one supplied. These should however be placed on the periphery of the CBD and the University.

Chapter 3: Mobility Impact on Parking



3. Setting the Scene

3.1 The Need to Park

Parking has become a huge problem due to high shortage of parking within Stellenbosch. Parking is however not a problem on its own as parking forms an integral part of the mobility of people to and from Stellenbosch.

Parking forms the portion of mobility where vehicles are in rest between trips. The vehicle is parked at homes and must travel from time to time. Where it travels to, would again be a place where it is to park.

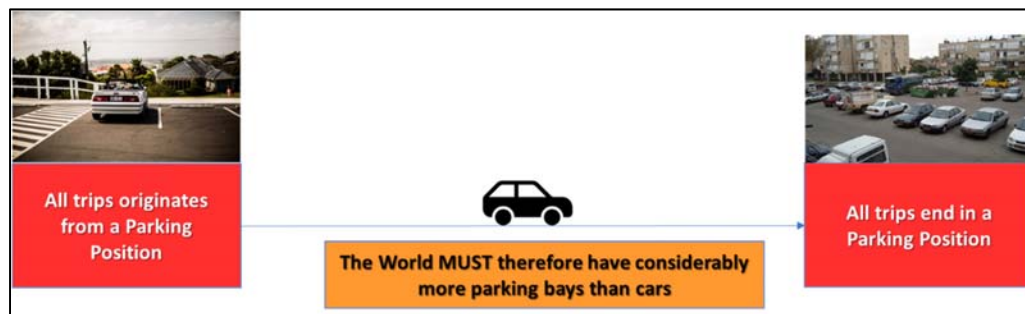


Fig. 3.1 All vehicles need to park at its origin and must park at the end of its trip

Parking is therefore very necessary for the operation of vehicles. Parking places are created in terms of need to travel with cars to certain destinations. The destination parking is however a function that relates with:

- Availability of Public Transport
 - Trains
 - Busses
 - Taxis
- Ability to use Non-Motorised Transport (NMT)
 - Walking
 - Cycling
 - Small wheel transport (Skateboard, role skates, scooters)
- Mode of town layout such Transit Orientated Development (TOD) where living and working is placed as close as possible to make walking the preferred mode of transport.

All of the above modes of transport together with long distance travel are therefore interrelated. If sedan vehicles are primarily used, then large amounts of parking are needed. If Public Transport is available, then less parking will be needed and equally so with TOD and NMT.

Figure 3.2 depicts the interrelationship of parking and modes of transport.

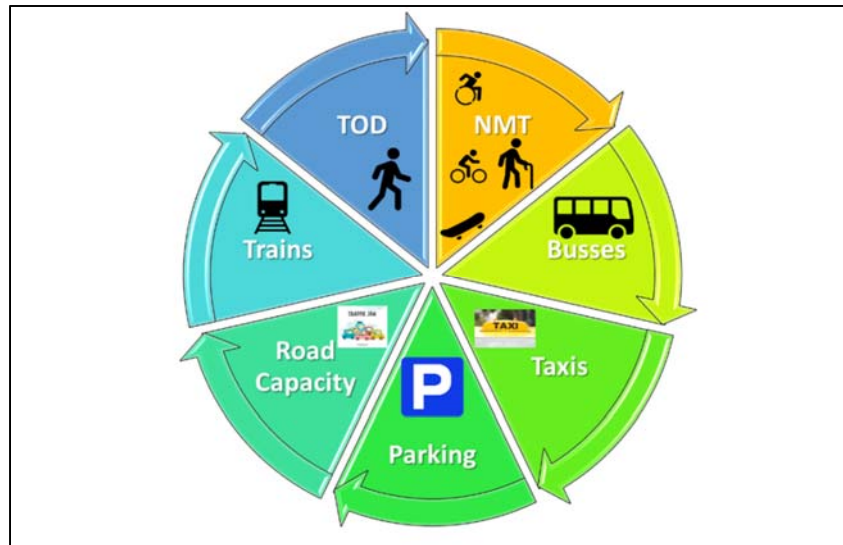


Fig. 3.2 Parking Interrelationship with Modes of Transport

Stellenbosch Municipality therefore suffers with more than one mode of transport problem. There is clearly a huge shortage of parking in relation to the vehicles visiting Stellenbosch, but parking is needed for the number of vehicles visiting Stellenbosch.

Modes of Transport	
Pedestrian	
Motor Vehicle	
Non Motorised Transport (NMT)	
Public Transport	

Fig. 3.3 Various modes of Mobility

Table 3.1: Mobility Mode Changes

Nr	Change Movement from	Change Movement to		
1	Pedestrian	Sedan Vehicle	NMT	Public Transport
2	Sedan Vehicle	NMT	Public Transport	Pedestrian
3	NMT	Public Transport	Pedestrian	Sedan Vehicle
4	Public Transport	Pedestrian	Sedan Vehicle	NMT

There is therefore also more than one way to solve parking problems:

- Provide more parking
- Reduce the incoming vehicles
- A bit of both

The number of parking spaces needed would therefore be related to the number of people using roads to: work -, tourism -, and study opportunities, the effectiveness of public transport, closeness of residences. The resultant vehicles entering Stellenbosch must therefore be in balance with the number and positioning of parking spaces provided.

From the words of Wilber Smith Associates mentioned at their San Diego Office:

“The parking structure itself must also fit in <with the surrounds of Stellenbosch> and must be:

Consumer and landscape friendly.

Parking needs to accommodate patrons in a logical and easy to-understand manner. It needs to be close to primary destinations, easy to get to, and easy for patrons to navigate and park within.

Good neighbour.

A parking facility needs to fit well with the surrounding environment. The facility should complement existing land uses and not detract from other neighbourhood uses. It should be compatible with the existing municipal infrastructure and have a minimal adverse impact on local traffic conditions.

Operationally efficient.

A good site will have dimensions that allow a facility to be built with good parking efficiency, that is, minimal space taken up by aisles and other non-parking areas. Ingress and egress will be logical and efficient. Net gain in parking spaces relative to cost is also important.

Ease of implementation.

A site that has multiple owners, unwilling sellers, etc. is not desirable. Ideally, the site will involve the parking entity or one property owner who is willing to sell will own a site. Good sites have little environmental clean-up and/or other issues that will delay construction.”

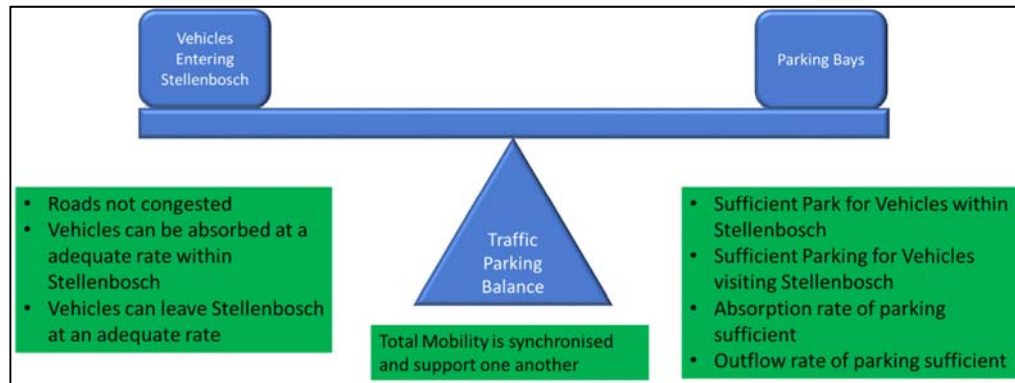


Fig 3.4: Vehicle Flow and Effective Parking must be in balance.

3.2 Parking Needs

The town of Stellenbosch has also grown considerably in the past 45 years and parking, which was already a problem in 1970, has become steadily worse as time has progressed. Various solutions have been put in place, all of which has now reached capacity and all of which are in need of upgrading namely.

The availability of parking within the majority of the Stellenbosch Demarcated Urban Area has become a huge problem and it has become necessary to create additional parking through various methods.

Various factors contributing to the parking shortages are:

- a. The University currently teaches about 28 000 students of which about 33.3% do not stay in Stellenbosch but commute from outside of Stellenbosch. These students would therefore need parking every day that they travel to Stellenbosch. The remaining 66.7% of students would also need parking but can also be accommodated at university residences or at private residences where students are been lodged.
 - 8000 students stay within Stellenbosch University residences
 - 8000 students stay within Stellenbosch Private residences.
 - 8000 students travel to Stellenbosch from home daily
- b. It is estimated that some 80% of staff, working in Stellenbosch, such as Stellenbosch Municipality, Techno Park, Stellenbosch University and many other businesses, live outside of Stellenbosch and commute to Stellenbosch on a daily basis. The number of people travelling to Stellenbosch is estimated to travel in about 5000 vehicles per day.
- c. It is further estimated that some 5000 vehicles, of the permanent resident public, commute within Stellenbosch on a daily basis.

The above vehicle flows would therefore mean that 34 000 parking spaces would be needed, either at residences or at offices or at the university.

The following graph shows the estimated parking needs, from a Municipal and University perspective, in other words the parking spaces for vehicles at work, university, shops or other destinations.

Table 3.2: Parking Space Needs

Class	Parking Spaces
Techno Park Informal	1 700
Techno Park Formal	700
Stellenbosch Municipal Informal	2 200
Stellenbosch Municipal Formal	10 000
University Informal	5 800
University Formal	1 900
Total Global Parking Spaces Needed within the Greater Stellenbosch Area at current Vehicle Flow	9 700
Total Existing Parking Spaces	12 600

3.3 Congestion of Major Routes

The following figures shows the major routes into Stellenbosch Town and indicates the congestion:

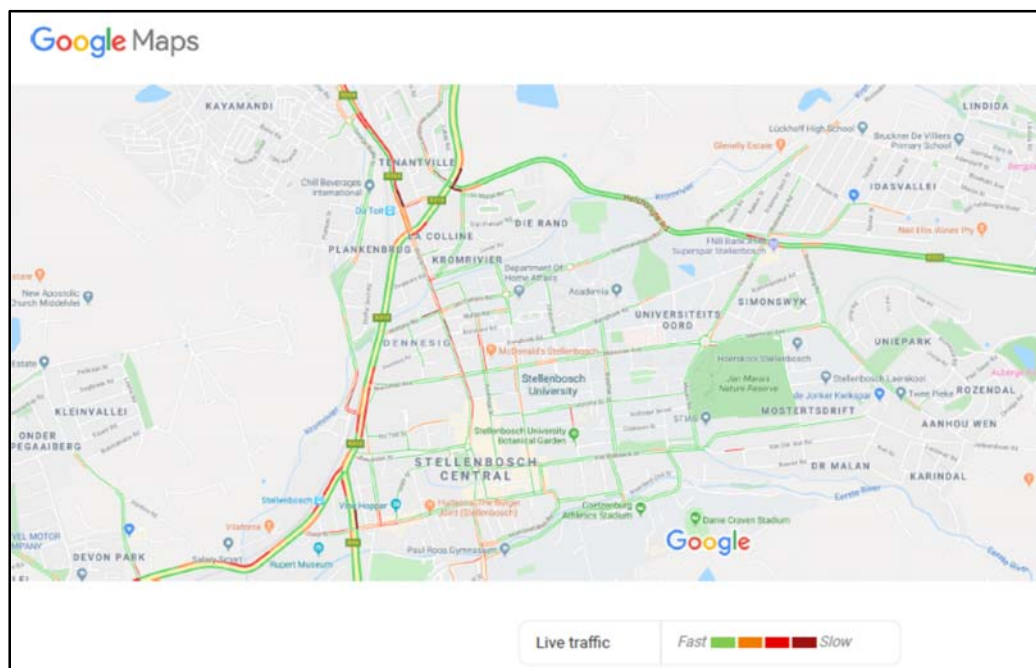


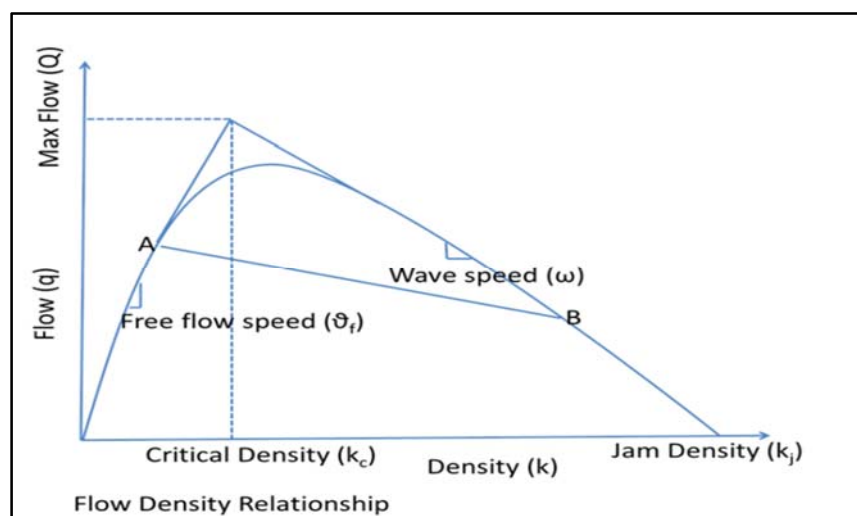
Fig. 3.5 Major Traffic Routes and Problematic Traffic Congestion

As can be seen in figure 3.5, the traffic flow on a typical weekday is largely congested. The figure shows congestion of the major routes as well as minor routes due to absorption speed of current parking facilities and areas

Table 3.3: Trip Generations by Various Population Groups

Nr	Community Section Creating Traffic	Amount	Travelling from	Travelling To	Estimated Number of trips per day on Major Routes	% Impact
1	Students living in University Residences	8 000	University Residence	University/ CBD	1 000	2.2%
2	Students living in Private Residences within Stellenbosch	8 000	Private Residence within Stellenbosch	University/ CBD	4 000	9.0%
3	Students living outside of Stellenbosch	8 000	Outside of Stellenbosch	University	10 000	22.4%
4	Inhabitants of Stellenbosch	21 000	Stellenbosch Surroundings	CBD	10 000	22.4%
5	Company Staff living outside of Stellenbosch	5 000	Outside of Stellenbosch	Stellenbosch	10 000	22.4%
6	Driving through Stellenbosch	4 800	Outside of Stellenbosch	Outside of Stellenbosch	9 600	21.5%
	Total Trips per weekday				44 600	

In understanding the flow of traffic upon a road the following typical graph/curve indicates how the flow of traffic reacts with relation to traffic density.

**Fig. 3.6 Flow of Traffic versus Flow Density**

As can be seen above, when the flow density is at point A, there is a free flow of traffic and traveling speed is not necessarily impacted by other traffic on the road regardless of the speed of other vehicles. Vehicles travelling at speed limit can be easily accommodated.

If the road is congested and point B is reached, then it can be seen that the vehicle now goes slower and has no room to move quicker. If the density further increases, then grid lock situation occur and finally stop at the “Jam” point.

The Stellenbosch Traffic density frequently reaches the B side of the curve during weekday peak hours, 07h30 to 08h30 and 16h00 to 18h00. Extra high density of traffic is reached on Monday mornings as well as Friday afternoons.

Referring to figure above a typical road such as the R44 should have free flowing traffic with vehicles being able to move at comfortable speed. At a certain point of traffic density, a peak of speed is reached, where after the average speed of vehicles starts to reduce and this worsens as the vehicle density increases.

With reference to the R44 this can be clearly seen within school and university holidays when the density of traffic is reduced. It then becomes quite comfortable to drive on the R44 during this period. On the other hand, it is also true that during school and university in-session times, a Monday morning peak as well as a Friday afternoon peak the traffic flow reaches nearly a jammed situation.

3.4 Parking vs Traffic Flow

As mentioned earlier, there are various ways of rectifying parking needs, which could be increasing the parking space, or reducing traffic inflow, or a bit of both.

There are also some other problems related to effective parking. In order to allow the traffic flow on major routes to be at the maximum possible speed, we need to ensure that the roads leading to bulk parking spaces are able to effectively handle the flow of traffic towards parking spaces as well as away from parking spaces. We can have the best and biggest possible parking facilities, but if the facility does not have the road capacity to allow vehicles through at the right pace then we will still sit with traffic congestions.

Equally the parking space itself must be able to absorb traffic at a minimum rate. There should be enough entrances and exits. The parking payment systems should be such that parking places can be rapidly filled and vacated.

The following figure demonstrates this effect:

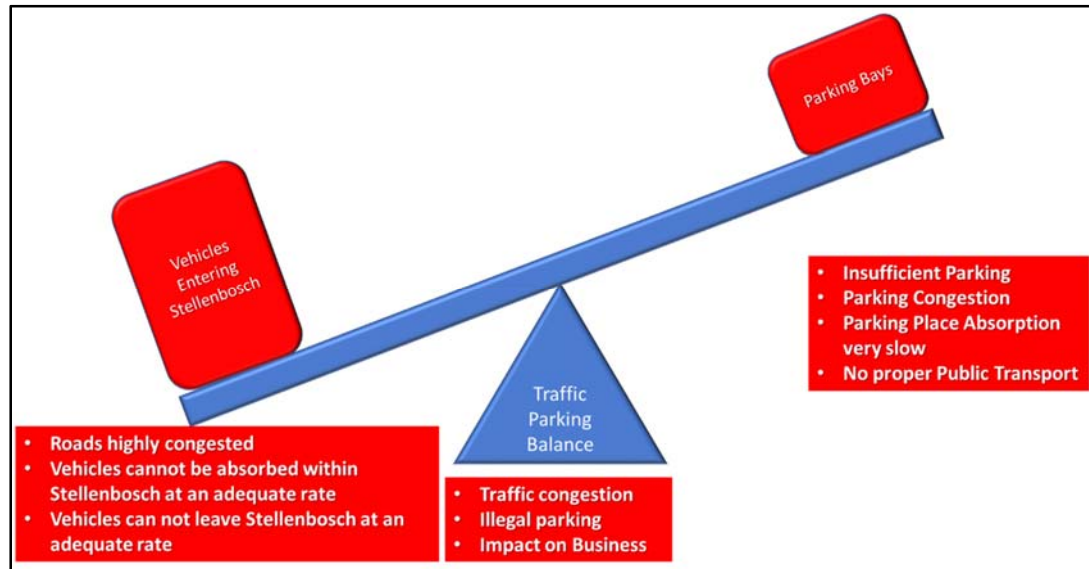


Fig.3.7 Current state of Parking and Traffic Flow within Stellenbosch

It is apparent that:

- Far too many vehicles enter Stellenbosch with too little formal parking spaces available within key areas within Stellenbosch.
- Some vehicles need to search for parking spaces and thereby reducing speeds in minor roads even more.
- Vehicles in minor routes cannot reach parking spaces fast enough to prevent congestion on main routes.
- Vehicles cannot enter parking spaces fast enough to prevent congestion on minor routes

Chapter 4: Parking Shortage & Congestion



4. Improving the Parking Shortage and Mobility

4.1 Controlling Flow of Traffic and Number of Parking Spaces

Various discussions have been held with the University, Provincial Government and other role-players.

Currently there not enough parking to cater for vehicles entering Stellenbosch. There could therefore be a few solutions:

a. Providing sufficient parking for the current number of vehicles entering Stellenbosch

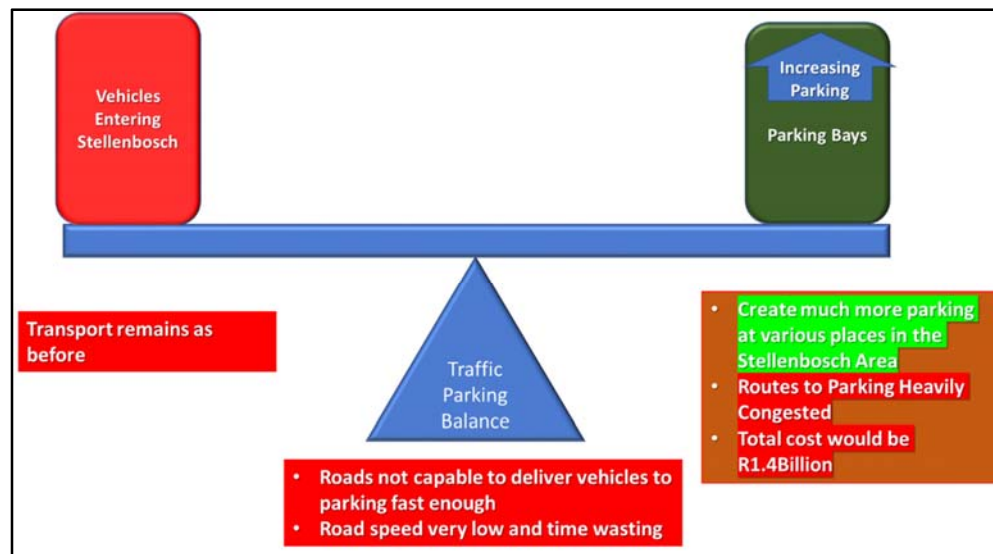


Fig. 4.1 Increasing Parking to match the Traffic entering Stellenbosch

This approach will provide enough parking but will not solve much.

The problems with this approach are:

- The amount of traffic entering Stellenbosch finds it difficult to reach the current parking spaces through the minor roads with specific reference to the current positioning of bulk parking
- Current Roads are not designed to cater for this traffic and most often the historical nature of Stellenbosch makes it very difficult to increase the capacity of minor roads, such as historical side irrigation canals in place. These roads, if changed, will immediately have a negative impact on the public opinion.
- The current estimated number of parking to be provided is 9 700 to cater for all places where vehicles are currently parking illegally. The rectification of this situation is the responsibility of both the Municipality and of the University. Such enormous parking requirements will have to be provided in a parking garage format of multiple layers so as to limit the horizontal space taken up by these garages.

- Vehicle parking space within a Parking Garage format is estimated at R150 000 per parking space. The total cost of 9 700 parking spaces will amount to R 1. 4 billion.

b. Reducing the number of vehicles entering Stellenbosch Municipality

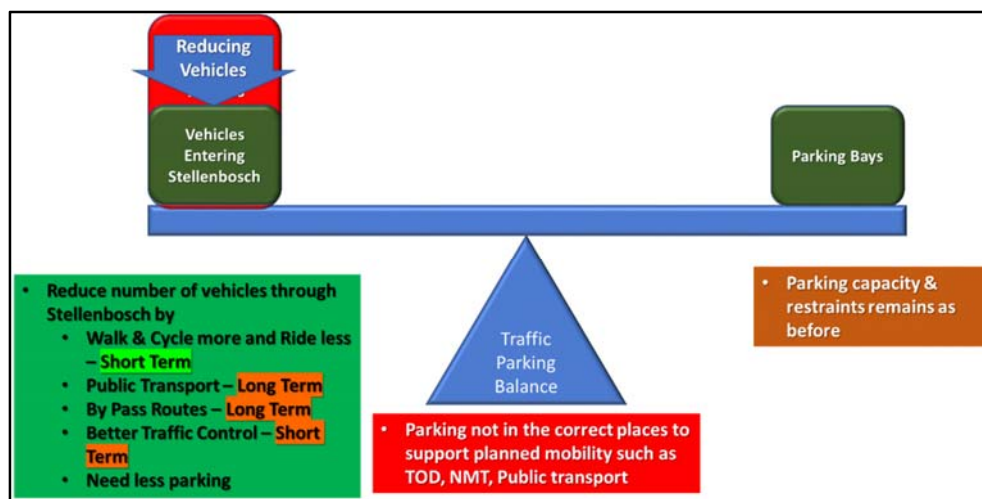


Fig. 4.2 Reducing the Traffic Flow entering Stellenbosch to match the Current Parking

This solution will have a lot more advantageous:

- Much less traffic will enter Stellenbosch if:
 - Public Transport is safe and advantageous to use
 - Travelling in groups
 - Building By-Pass routes

Problems with this solution are:

- Many of the solutions are outside of the control of the municipality, such as providing efficient Public Transport in the form of rail transport or building a by Pass route to allow vehicles not stopping in Stellenbosch to bypass the Stellenbosch Central Business District (CBD).
- Note the whole idea is to get the same amount of people visiting Stellenbosch to share transport such as per public transport, co-sharing.
- Another way to lessen the working staff and students coming to Stellenbosch would be to create housing within Stellenbosch to cater for the needs of this class of person. One such approach would be making use of Transit Oriented Development (TOD)

c. Somewhat reducing traffic and somewhat increasing parking

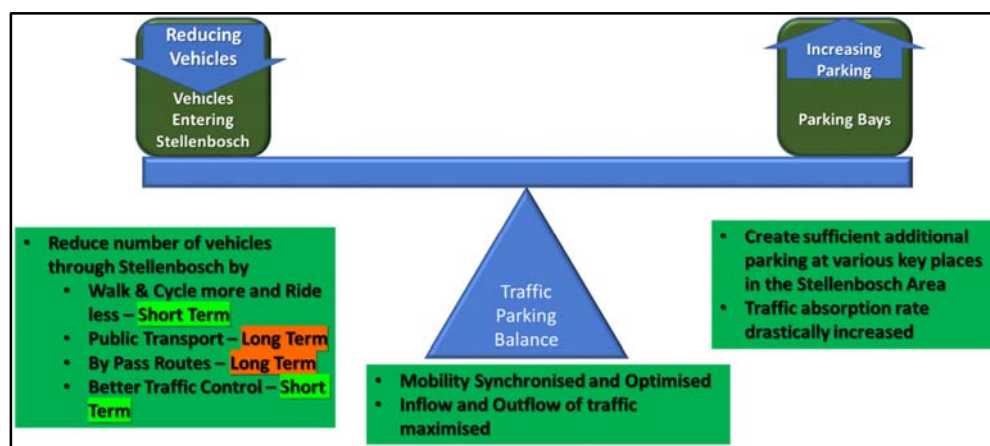


Fig.4.3 Somewhat reducing traffic and somewhat increasing parking

In this scenario the traffic entering Stellenbosch is lowered by utilising controls within the grasp of the Municipality:

- Introducing TOD
- Better Traffic Signalising synchronisation control
- Introducing better localised Public Transport such as Taxis, Bus Service and micro transport
- Promoting NMT by creating Cycle Tracks, Pedestrian Walkways (reducing vehicle flow on minor roads)
- Promoting shared eBikes and eScooter services
- Building a percentage of parking space needed at positions where a number of transport modes are available such as near Train Stations, Taxi Ranks, Bus Stops etc. Also positioning such Parking that vehicles are drawn direct from mayor routes and then also delivering vehicles direct on the major routes.

It has been established that the provisional creation of additional parking cannot be looked at on its own, but that various forms of mobility must be looked at as well.

The general direction of discussions between Stellenbosch Municipality and the University has also indicated a preference to curb vehicular traffic in the University Core and to promote None Motorised Traffic (NMT) in this core.

The same is planned for the CBD of Stellenbosch Town.

d. Methods of Reducing Traffic.

There are various ways of finding a solution of managing the traffic volumes upon our major routes:

- Increasing the size of the Provincial Routes R44/R304/R310 –

This is generally possible on those parts outside of built up areas but is very expensive. These roads also belong to Provincial Government and it generally takes a long time to achieve. Within built up areas space would be a problem

and the speed limit having to be enforced would be problematic. Add to this a historical town such as Stellenbosch and the keeping to the historical nature becomes a big concern.

- Western By Pass –

Another solution is to create a Western By-Pass diverting traffic away from the current R44 at the Andersen Road intersection on the Somerset West side, moving over the R310 on the western side of Stellenbosch and merging with the R304 at the Welgevonden crossing. Tests have shown that about 15% of the current traffic driving upon the R44/R304 can be reduced. Note that the amount of traffic diverted seems too small to warrant a change, but it is noted that all of the solutions offered have similar offered improvement. It must be noted that a combination of solutions will have to be sought.

- Building a Link from Techno Park to the Adam Tas (R310) Road close to the landfill site. –

This solution is already being attended to and involves a road to be built from the current Techno Park to a point on the R310/Adam Tas Road. It is estimated that 80% of staff currently working at Technopark would rather make use of this road and thereby drastically reducing the number of vehicles on R44 from Stellenbosch CBD to Techno Park. 80% of traffic diverted from R44 will equate to approximately 2000 vehicles and about 12% of the total traffic on the R44

- Transit Oriented Development (TOD) –

One huge problem at Stellenbosch is the very high difference/polarisation between the rich and the poor. It is estimated that as much as 70% of all employees working within Stellenbosch reside outside of Stellenbosch.

There are very expensive developments and also very poor sections. There is space for students, but very little housing opportunities for the middle class. The TOD is proposed to create a housing scheme within this category. It also envisaged a methodology of allowing homes to be close to work, such that the use of vehicles will be minimised. It also endeavours to attract the middle class to move to Stellenbosch, thereby drastically reducing the number of vehicles on approach roads.

- Non-Motorised Transport (NMT) –

This solution endeavours to cause public to use other forms of transport such as walking, riding bicycles, and forms of small wheel transport (skate board, scooters. Roller skates etc). It essentially removes the final part of transport to a destination. Through this solution it is attempted to create a vehicle free CBD as well as a vehicle free main university campus.

- Public Transport-

Currently the quality and quantity of transport by trains are very low and untrustworthy. As a result, cars are favoured above trains. By increasing the quality, quantity and reliability of trains, a huge quantity of vehicles can be taken of the Stellenbosch main routes. It is estimated that a working train system will be able to deliver 3000 passengers per hour to Stellenbosch at peak times. If properly used this would have a reasonable reduction of vehicles travelling to and from Stellenbosch.

4.2 Controlling the Flow of Traffic with Curbing the Use of Vehicles

The methods, under the control of the Municipality, of curbing the number of vehicles are

- NMT
- TOD

4.2.1 Non-Motorised Transport (NMT) Areas

Non-motorized Transportation (also known as Active Transportation and Human Powered Transportation) includes Walking and Bicycling, and variants such as Small-Wheeled Transport (skates, skateboards, push scooters and hand carts) and Wheelchair travel. These modes provide both recreation (they are an end in themselves) and transportation (they provide access to goods and activities), although users may consider a particular trip to serve both objectives. For example, some people will choose to walk or bicycle rather than drive because they enjoy the activity, although it takes longer.

There are strong suggestions from the University to create NMT areas within the two campuses. The general part of Campus and the Engineering part of Campus

- a. The following indicates a proposal of creating a Campus 1 NMT area, where no vehicles will be allowed but only NMT:

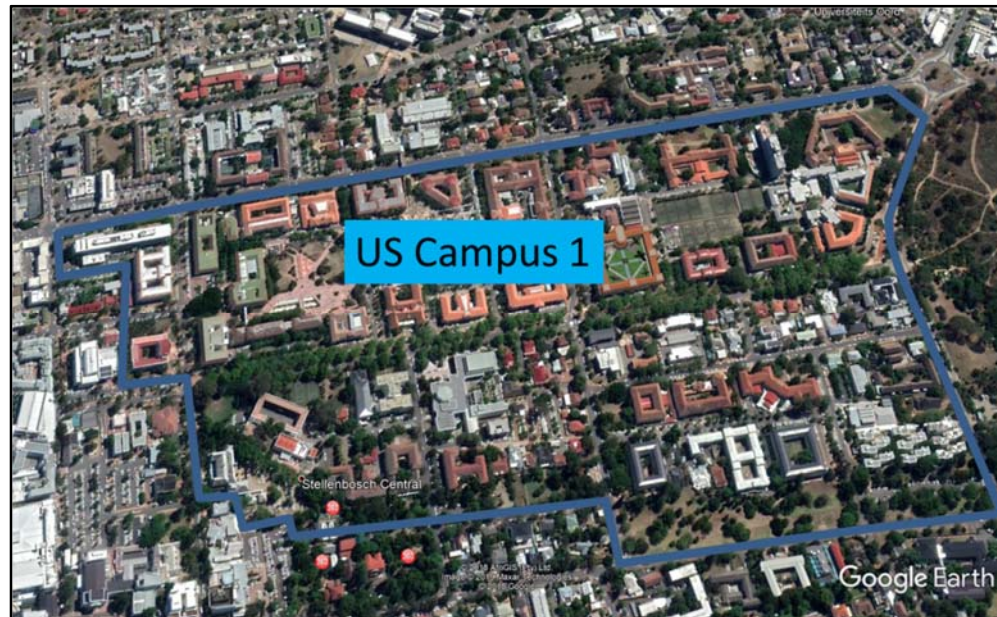


Fig.: 4.4 Campus 1 NMT Area

This area is roughly bounded by the following routes:

- Merriman from Andringa to JS Marais
- JS Marais from Merriman to Van Riebeeck
- Van Riebeeck from JS Marais to Bosman
- Bosman from Van Riebeeck to Murray
- Murray from Bosman to Southern Boundary of Harmony Residence
- Boundary line from Southern part of Harmony Residence to Southern Boundary of US Museum
- Ryneveld from Museum to Victoria
- Victoria from Ryneveld to Andringa
- Andringa from Victoria to Merriman

- b. The following indicates a proposal of creating a Campus 2 NMT area, where no vehicles will be allowed but only NMT:



Fig.: 4.5 Campus 2 NMT Area

This area is roughly bounded by the following routes:

- Hammanshand from Joubert to Launchlab entrance
- Launchlab Entrance to Kromme River
- Kromme River from Launch lab to Helshoogte Road.
- Helshoogte Road from Kromme River crossing to Fire Station Boundary.
- Fire station Boundary from Helshoogte to Banghoek
- Banghoek from Fire station boundary to Joubert
- Joubert from Banghoek to Hammanshand

- c. The following indicates a proposal of creating a CBD NMT area, where no vehicles will be allowed but only NMT



Fig.: 4.6 CBD NMT Area

This area is roughly bounded by the following routes:

- Plein from Bird to Drostdy
- Drostdy from Plein/Van Riebeeck to Dorp
- Dorp from Drostdy to Bird
- Bird from Dorp to Plein

4.2.2 Transit Oriented Development (TOD)

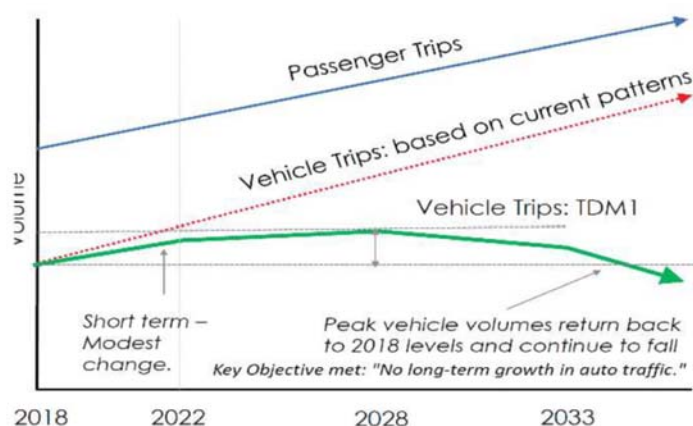
In urban planning, a transit-oriented development (TOD) is a type of urban development that maximizes the amount of residential, business and leisure space within walking distance of public transport. In doing so, TOD aims to increase public transport ridership by reducing the use of private cars and by promoting sustainable urban growth.

A TOD typically includes a central transit stop (such as a train station, or light rail or bus stop) surrounded by a high-density mixed-use area, with lower-density areas spreading out from this centre. A TOD is also typically designed to be more walkable than other built-up areas, through using smaller block sizes and reducing the land area dedicated to automobiles.

There is currently an area earmarked for the so-called Adam Tas Corridor. This area taken up in the SFD is to comprise of the following:

“Conceptually, the Adam Tas Corridor is the focus of new town building, west of the old Stellenbosch town and central business district (CBD). The “seam” between the new and old districts comprises Die Braak and Rhenish complex, which can form the public heart of Stellenbosch town. The CBD or town centre in itself can be improved, focused on public space and increased pedestrianism. A recent focus on the installation of public art could be used as catalyst for further public space improvements. Other infill opportunities also exist in Stellenbosch town, specifically in Cloeteville, Idas Valley, Stellenbosch Central, along the edges of Jamestown. There are also opportunities to change the nature of existing places to become more “balanced” as local districts.”

The whole application of all the solutions mentioned above is to achieve the following as explained in the SDF:



The following is a visual version of the Adam Tas Corridor:

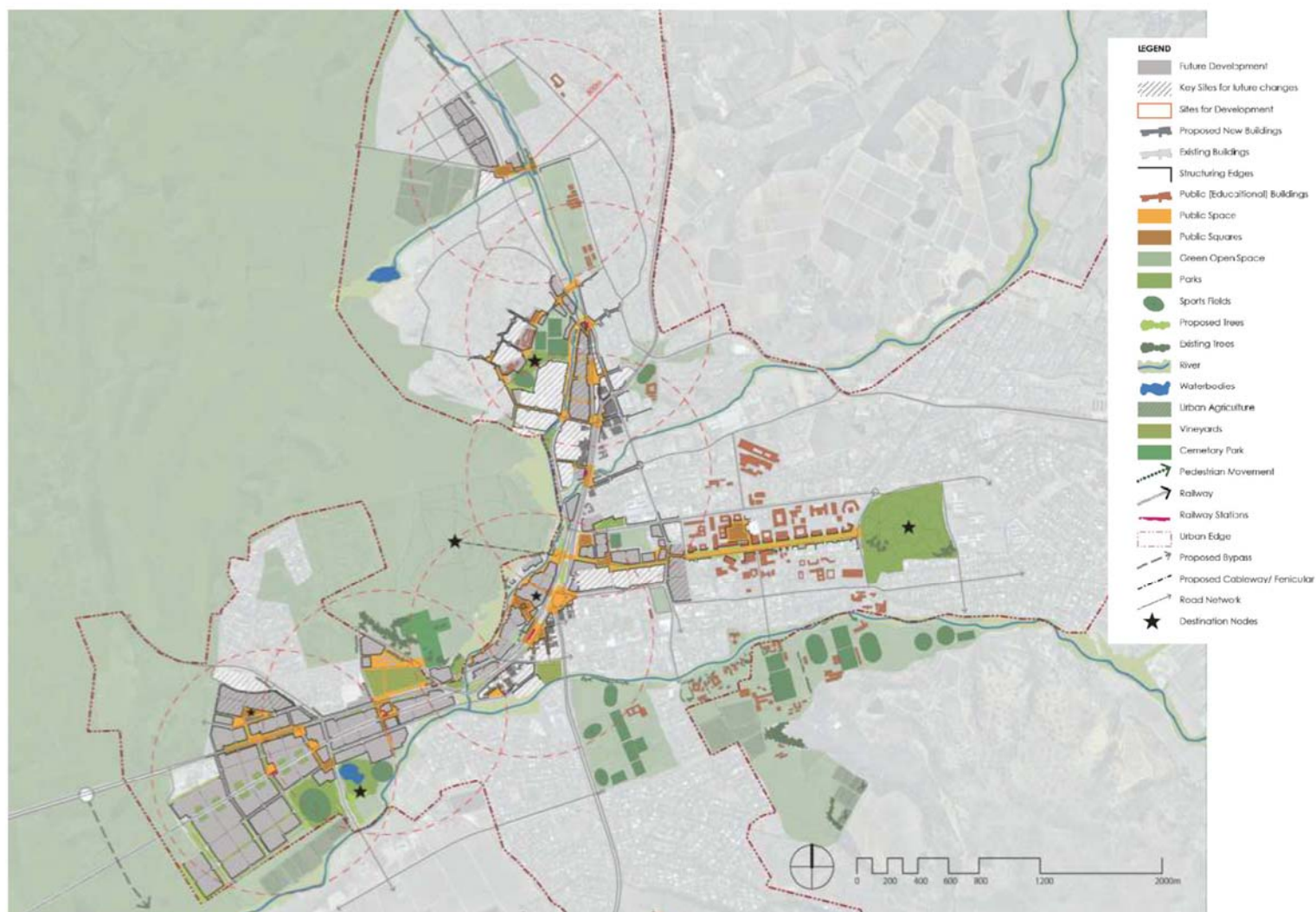


Figure 54. Adam Tas Corridor Concept

a. Stellenbosch Northern Section

The following indicates a proposal of creating an Initial TOD Northern area, where walking will be encouraged, and vehicles discouraged:



- R44/Adam Tas from Merriman to Kromme River Crossing
- Kromme River from R44 Crossing to Boundary between Phyllaria Flats and CSIR
- Phyllaria Flats/CSIR boundary from Kromme River to Hammanshand
- Hammanshand from Phyllaria/CSIR boundary to Ryneveld
- Ryneveld from Hammanshand to Southern Boundary of Department of Internal Affairs and the Traffic Station
- Southern Boundary of Department of Internal Affairs and the Traffic Station from Ryneveld to Joubert
- Joubert from Traffic Station to Merriman
- Merriman from Joubert to R44/Adam Tas

b. Adam Tas Corridor

The success of Stellenbosch as a primary tourism, business and residential destination linked to its heritage and the wine industry, as well as, its university town status and the institution's recent growth, has resulted in significant development pressure being placed on the infrastructure of the town. These conditions, however, also present significant development opportunities for the re-imagining of the role of the town and for the spatial restructuring of the town.

Attached to the above development is also the drive to reduce the use of formal vehicles in favour of Public Transport and NMT

The following indicates a proposal of creating a TOD Adam Tas Corridor, where walking will be encouraged, and vehicles discouraged.



Fig.: 4.8 Adam Tas TOD Corridor

The proposed demarcated specific areas to be included in a TOD area the following:



- the Stellenbosch and Du Toit Rail Stations
- PRASA land holdings along the R44 corridor
- George Blake Road
- the Van Der Stel Sports Complex
- the Bergzicht Taxi Rank and Informal Traders Area
- Open Space parcels around R44/Adam Tas Road

Chapter 5: Parking Uses and Mode Switches



5. Parking Uses and Mode Switch

The following indicates how the utilisations of various modes of transport can reduce the current vehicles travelling on roads to, within and from Stellenbosch. The table also indicates an estimated number of vehicle trips that can be removed from traffic flow problem within major routes

Nr			Estimated Amount cars involved	Estimated Number of trips saved	
1	People using public transport to leave and return to Stellenbosch by parking centrally then using Public Transport		4000	8000	Cars diverted from Major routs outside of Stellenbosch
2	People traveling from within Stellenbosch, parking closer to work/University and thereafter walking to work/university and the opposite when returning		5000	10000	Cars diverted from the CBD and University of Stellenbosch

3	Utilising TOD process and parking within a garage on a long term basis		1000	2000	Cars diverted from all routes
4	People traveling from outside of Stellenbosch, parking closer to work/University and thereafter walking to work/university and the opposite when returning		3000	1000	Some CBD routes saved

Also note how the SDF sees the Mobility issues:

No.	Road	Road Name	Current Provision			Extend Provision for..				Future Corridor Development	
										Transport	Land Use Activity
1-2	R44	Strand Road								Road based formalised public transport priority route.	Limit / prevent new development. Scenic Route
3-7	R310	Baden Powell								Rail and road high capacity primary public transport priority route	Encourage compact, mixed use, redevelopment and contained growth at the specific nodes
8-10	M12	Polkadraai Rd								Road based formalised public transport and P&R priority route.	Mobility Route. Limit / prevent new development.
11	M23	Bottelary Rd								Road based formalised public transport priority route.	Compact, mixed use, redevelopment and contained growth at Koelenhof & Devenvale.
12-14	R304	Malmesbury Rd								Road based formalised public transport and P&R priority route.	Encourage compact, mixed use, redevelopment and contained growth at Koelenhof node & R304-R101 node (Sandringham & Joosetenburg)
15-17	R44	Klapmuts Rd								Road based formalised public transport and P&R priority route.	Limit / prevent new development. Scenic route. Focus compact, mixed use development at Klapmuts
18-20	R310	Banhoek Rd								Road based formalised public transport route.	Scenic Route. Consolidate development at specific nodes
21		Kromme Rhee Rd								Rail and road public transport & P&R linking route	Encourage compact, mixed use, redevelopment and contained growth at Koelenhof only.
22		Annandale Rd								Road based linking route	Mobility route. Limit / prevent new development. Scenic Route
23-24	R45	Paarl-Franschoek								Road based public transport priority route.	Mobility route. Limit / prevent new development. Scenic Route
25-27	R301	Wemmeshoek Rd								Road based public transport priority route.	Mobility route. Limit / prevent new development

Chapter 6: Possible Parking Garage Positions



6. Possible Parking Positions

6.1 Existing Parking Venues

The proposed solution is to cater for all incoming traffic in parking facilities at the edges of this core and thereafter travelling working staff and students could use public transport or Non-Motorised Transport (NMT) to travel to and back from place of work or classes as the case may be. Various exercises have been conducted in the past with various solutions and now is the time to coordinate and consolidate all of these proposals into a final proposal upon which the Council can decide and act on an extended public parking provision.

Once Council has decided on the long-term parking provision and the provision of a lighter traffic core, then a decision can be made whether parking at the Eikestad Mall/Town Hall and Bloemhof should merely be rebuilt and same amount of parking provided or whether the parking should be upgraded to a larger amount of parking.

Currently the Municipality owns and manages a number of parking facilities, such as the Eikestad Mall Parking, Bloemhof Parking, Stellmarket Parking, Checkers Parking, Parking bounded by Piet Retief -, Bird -, Louw -, Noordwal Wes Streets as well as some others, within the Town of Stellenbosch.

In order to drastically increase the amount of parking various solutions can be looked at, some of which are internal methods and other could be external such as paid parking garages. Similarly, similar parking problems are being experienced within the Franschhoek & Klapmuts areas where the large tourism industry requires that additional parking be investigated.

Many development opportunities are being sought in the Klapmuts area also and currently a large problem is being experienced with the amount of large trucks stopping overnight. To this extent parking needs to be investigated.

a. Parking Within Stellenbosch Town



Fig. 6.1: Parking Detail within Stellenbosch Town



Fig. 6.2 Current Bloemhof Parking



Fig 6.3 Current Eikestad Mall Parking



Fig. 6.4 Current Stelkor Parking



Fig. 6.5 Current Checkers Parking



Fig 6.6 Current Pick & Pay Parking



Fig. 6.7 Possible Die Braak Underground Parking

b. Parking within Franschhoek



Figure 6.8: Parking Detail within Franschhoek

c. Parking within Klapmuts



Fig 6.9: Parking Detail within Klapmuts

6.2 New Parking Possibilities

a. Van Der Stel Area

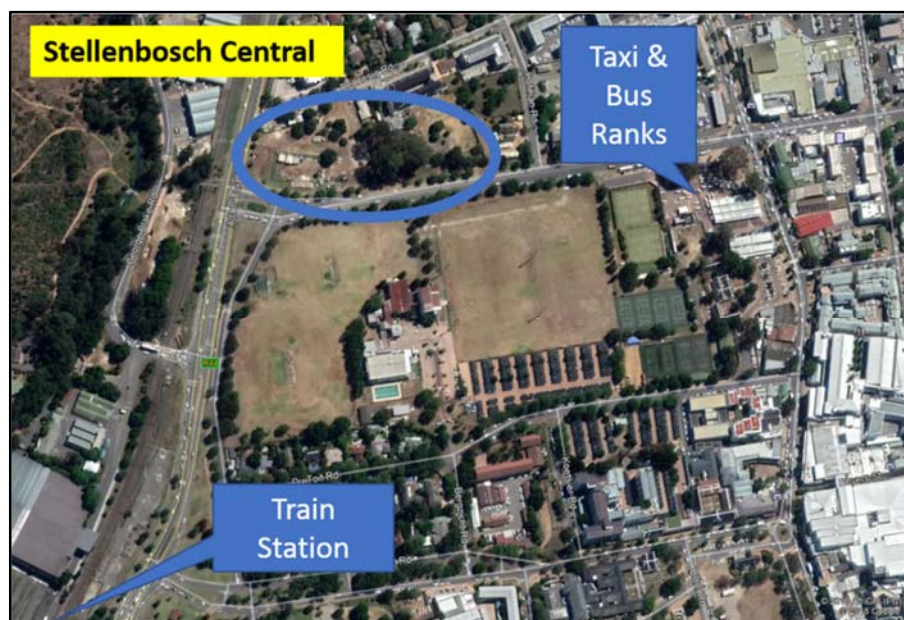


Fig. 6.10 Van Der Stel Area

This area is in close proximity of a train station, direct access to major routes, Taxi Ranks, Bus Terminus and within a future TOD area. The property belongs to the Municipality and is earmarked for parking.

b. R304 Entrance to Stellenbosch



Fig. 6.11 R304/Bottelary/Krommerhee Intersection

This intersection lies on the crossing of R303 with Bottelary Road and Kromme Rhee which is 8.6km from the Stellenbosch CBD. This site is close to a train station. It is next to intended large developments. One possibility of this site is that it could form a stopover of vehicles travelling to Stellenbosch and where Public Transport could be used to travel into and back of Stellenbosch.

c. **Techno Park Parking Site**



Fig. 6.12 Techno Park R44 Entrance Parking Site

This site can be found on the southern R44 leading from Somerset West to Stellenbosch. It can be found 5.4 km from the Stellenbosch CBD. There is an estimated 1700 vehicles park on informal sites at Techno Park. There is currently no public transport, but a bus route and taxi routes can be easily created. This particular property is owned by the Municipality and is earmarked for parking.

d. Adam Tas Entrance Parking Site

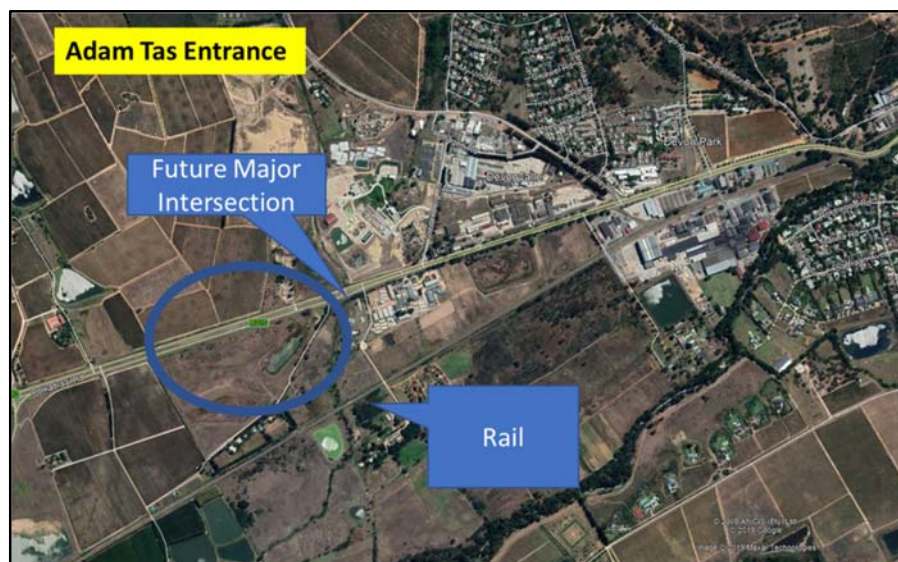


Fig. 6.13 Adam Tas Bulk Parking Potential Site

This site lies on the R310 on the South Western side of Stellenbosch. This position is 5.7km from the Stellenbosch CBD and is close to the railway line. It is also the junction where the future Wester By-Pass and the Techno Park Link Road will join the Adam Tas Road. A station will have to be established as well as Taxi Rank and Bus Terminus to create a mobility changeover mode.

e. Klapmuts Bulk Parking Site



Fig. 6.14 Klapmuts Bulk Parking Site

This site is situated on the R101 at Klapmuts and is close to intersection with the R44 as well as the N1 intersection with the R44. There is a Train Station in close proximity as well as a Taxi Rank. The site to the north of the R101 is currently used as an Overnight Truck Stop. The Klapmuts site is seen as the centre of some big future developments such as a campus of the University of Stellenbosch, Distell Industrial Site. Housing Developments and Commercial Developments. The intention to create a shuttle service from here to Stellenbosch Town has been expressed by the University Of Stellenbosch. The site does not belong to the Municipality

f. Franschhoek Bulk Parking



Fig. 6.15 Franschhoek Bulk Parking

The Franschhoek Bulk Parking site is as a result of a request from Franschhoek to create a site where Franschhoek inhabitants can park, thereby leaving the Main Road parking open to tourists and visitors. This site would be close to a Bus terminus, Tram Terminus and taxis.

6.3 Assessment of Possible Parking Sites

The various mentioned sites have now been assessed in the order of contribution to the various mobility problems experience:

- Reduction of Traffic on major routes,

- Allowing the CBD to become less congested,
- Contributing to reduction of vehicles.
- Contributing to an increased NMT
- Synchronisation with TOD
- Easy transfer of Mobility Mode:
 - Trains
 - Taxis
 - Busses

Each parking site is evaluated by giving points for the above. The site scoring the most points would therefore indicate a site that would be most useful for reducing traffic on the major routes, allowing changing modes from vehicles to many of the other mobility modes being targeted.

Table 6.1 New Proposed Areas in Line with SDF Proposed sites































































No.	Road	Road Name	Current Provision			Extend Provision for..				Future Corridor Development		
										Transport	Land Use Activity	
1-2	R44	Strand Road									Road based formalised public transport priority route.	Limit / prevent new development. Scenic Route
3-7	R310	Baden Powell									Rail and road high capacity primary public transport priority route	Encourage compact, mixed use, redevelopment and contained growth at the specific nodes
8-10	M12	Polkadraai Rd									Road based formalised public transport and P&R priority route.	Mobility Route. Limit / prevent new development.
11	M23	Bottelary Rd									Road based formalised public transport priority route.	Compact, mixed use, redevelopment and contained growth at Koelenhof & Devenvale.
12-14	R304	Malmesbury Rd									Road based formalised public transport and P&R priority route.	Encourage compact, mixed use, redevelopment and contained growth at Koelenhof node & R304-R101 node (Sandringham & Joosetenburg)
15-17	R44	Klapmuts Rd									Road based formalised public transport and P&R priority route.	Limit / prevent new development. Scenic route. Focus compact, mixed use development at Klapmuts
18-20	R310	Banhoek Rd									Road based formalised public transport route.	Scenic Route. Consolidate development at specific nodes
21		Kromme Rhee Rd									Rail and road public transport & P&R linking route	Encourage compact, mixed use, redevelopment and contained growth at Koelenhof only.
22		Annandale Rd									Road based linking route	Mobility route. Limit / prevent new development. Scenic Route
23-24	R45	Paarl-Franschoek									Road based public transport priority route.	Mobility route. Limit / prevent new development. Scenic Route
25-27	R301	Wemmeshoek Rd									Road based public transport priority route.	Mobility route. Limit / prevent new development

Table 6.2 Mobility Mode relation of Site Proposed

Nr	Parking Site	Saving of R44 (R45 within Franschhoek) Central Route Trips	Saving of CBD Trips	Alleviating Parking Shortage within CBD	Mode Support					Size Foot Print sq m	Points	Ranking	Property Available
					Vehicles	NMT	Trains	Taxis	Buses				
1	VDS North of Merriman	High	Low	High	High	High	High	High	High	10 000	25	1	Yes
2	Bloemhof	Low	Low	Medium	Medium	High	Low	Medium	Medium	4 000	16	8	Yes
3	Eikestad Mall	Low	Low	Medium	Medium	High	Low	Medium	Medium	10 000	17	7	Yes
4	Stelkor	Low	Medium	Medium	Medium	Medium	Low	High	Medium	4 000	17	7	Yes
5	Die Braak	Low	Low	High	High	High	Medium	High	High	10 000	19	5	Yes
6	Checkers	Low	Low	Medium	High	High	Medium	High	High	2 000	19	5	Yes
7	Pick n Pay	Low	Medium	Medium	Medium	High	Low	High	Medium	7 000	18	6	Yes
8	Techno Park	Medium	Medium	Medium	High	Low	Low	High	High	7 000	19	5	Yes
9	Dennesig Parking	Medium	Medium	High	High	High	Medium	High	High	6400	21	4	Yes
10	R304 Entrance	High	Medium	Medium	High	Low	High	High	High	12 000	23	3	No Munic Properties
11	Adam Tas Entrance	High	Medium	Medium	High	Low	High	High	High	12 000	23	3	Yes
12	Klapmuts	High	Medium	High	High	Low	High	High	High	12 000	25	1	Yes
13	Franschhoek R45	High	High	High	High	High	Low	High	High	6 000	24	2	No
14	Franschhoek Tennis Courts	Medium	High	High	High	High	Low	High	High	6000	23	3	Yes

Chapter 7: Legislative Requirements



7. Legislative Assessment

In order to achieve the required alteration of a provided service, the Municipality has to conduct all of the requirements of the Municipal Systems Act. The Systems Act itself has to be in line with The Constitution which is the basis of all actions to be provided by Sphere of Government (National, Provincial or Local). Furthermore the divisions of functions between a Local Municipality and a District Municipality are governed by the Municipal Structures Act. All of the requirements of these legislations have to be adhered to. The function of the provision of parking is listed with The Constitution and is awarded to Local Government. Parking is also a function of a Local Municipality ito of the Structures Act. The following steers the process of altering the provision of parking through all of the mentioned Acts and in particular follows the following guidelines:

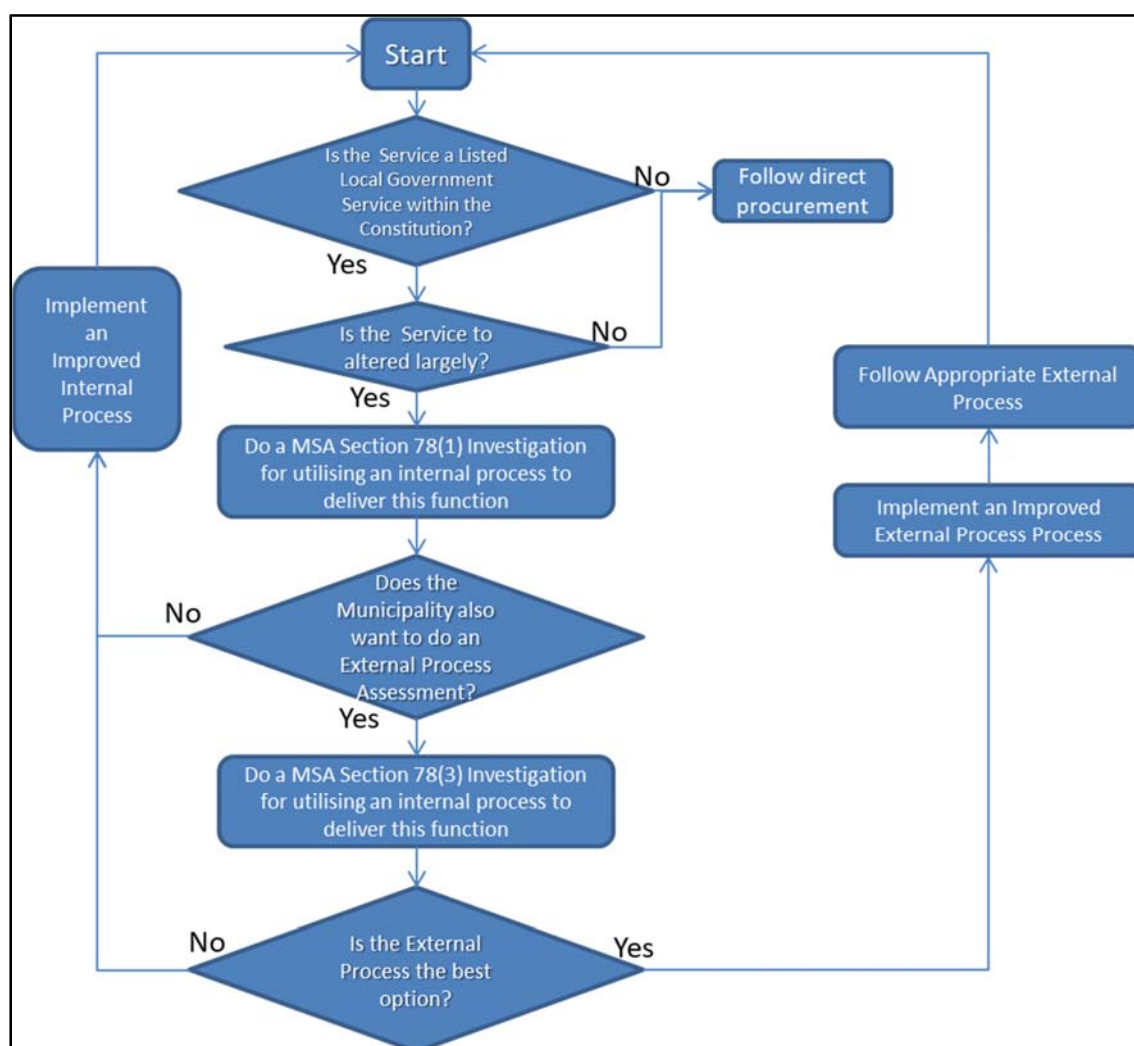


Fig.: 7.1 Section 78 Flow Diagram

7.1 The Constitution, Act 108 of 1996, as amended

Section 156 of the Constitution states:

“Powers and functions of municipalities

156. (1) *A municipality has executive authority in respect of, and has the right to administer -*

- (a) the local government matters listed in Part B of Schedule 4 and Part B of Schedule 5; and*
- (b) any other matter assigned to it by national or provincial legislation.*

(2) A municipality may make and administer by-laws for the effective administration of the matters which it has the right to administer.

(3) Subject to section 151(4), a by-law that conflicts with national or provincial legislation is invalid. If there is a conflict between a by-law and national or provincial legislation that is inoperative because of a conflict referred to in section 149, the by-law must be regarded as valid for as long as that legislation is inoperative.

(4) The national government and provincial governments must assign to a municipality, by agreement and subject to any conditions, the administration of a matter listed in Part A of Schedule 4 or Part A of Schedule 5 which necessarily relates to local government, if -

- (a) that matter would most effectively be administered locally; and*
- (b) the municipality has the capacity to administer it.*

(5) A municipality has the right to exercise any power concerning a matter reasonably necessary for, or incidental to, the effective performance of its functions.”

Within The Constitution the competence of **Traffic and parking** appear in Schedule 5B. It is therefore a Local Government competence as per Section.

7.2 The Municipal Systems Act (MSA), Act 32 OF 2000

7.2.1 The MSA determines that the Legislative Process Followed to Alleviate Parking Congestion

Section 77 of the MSA determines:

“77. Occasions when municipalities must review and decide on mechanisms to provide municipal services.—A municipality must review and decide on the appropriate mechanism to provide a municipal service in the municipality or a part of the municipality—

- (a) in the case of a municipal service provided through an internal mechanism contemplated in section 76, when—*

(i) an existing municipal service is to be significantly upgraded, extended or improved;

(ii)"

As parking has become a severe problem and, as it is a Municipal Competence, the Act requires that a Section 78 process be performed to officially determine the best way forward.

7.2.2 Requirements of the Section 78(1) process.

The Municipal Systems Act, Act 32 of 2000, as amended, requires the following under Section 78(1):

"Criteria and process for deciding on mechanisms to provide municipal services.—

(1) When a municipality has in terms of section 77 to decide on a mechanism to provide a municipal service in the municipality or a part of the municipality, or to review any existing mechanism—

(a) it must first assess—

(i) the direct and indirect costs and benefits associated with the project if the service is provided by the municipality through an internal mechanism, including the expected effect on the environment and on human health well-being and safety;

(ii) the municipality's capacity and potential future capacity to furnish the skills, expertise and resources necessary for the provision of the service through an internal mechanism mentioned in section 76 (a);

(iii) the extent to which the re-organisation of its administration and the development of the human resource capacity within that administration as provided for in sections 51 and 68, respectively, could be utilised to provide a service through an internal mechanism mentioned in section 76 (a);

(iv) the likely impact on development, job creation and employment patterns in the municipality, and

(v) the views of organised labour; and

(b) it may take into account any developing trends in the sustainable provision of municipal services generally."

7.2.3 Section 78(1) Investigation

The full report on the Section 78(1) investigation is attached as Annexure B

From the Section 78(1) report the following conclusions were reached

a. Conclusions

i) Aspects Reviewed

The above report has provided an overview of the extent of the parking service as identified in Chapter 1 of this report, considered the process that the Municipality must follow in terms of section 78(1) of the MSA, and then reviewed each issue listed by section 78(1). These include the costs and benefits of providing the service, the Municipality's capacity to provide the service, and international and local trends with respect to transport service provision.

ii) Conclusions

The conclusions reached from interviewing key municipal officials and considering each of the aspects required by s78 (1) are that the Municipality does not currently have the financial resources or organisational capacity to internally provide a public transport service. The major factors counting against it are the increased budget required to cover the establishment and recurring costs of the service, the significant increase in staffing that would be required and a national shift in the approach to sustainable transport.

Irrespective of the mechanism selected to deliver a parking service (internal vs. external), the Municipality should consider pursuing an alternative approach to parking service in and around the Stellenbosch and Franshoek CBD, based on the experience of other cities and towns. The experience of Boulder in the USA can be beneficial as it has become world renowned for its sustainable transport system, that stroke a good balance between non-motorised transport modes and the private vehicle.

b. Recommendations

Based on the conclusions reached above, it is recommended that:

1. The Municipality consider an external mechanism for the provision of parking services in Stellenbosch. This consideration should be conducted in terms of section 78(3) of the Municipal Systems Amendment Act (No 44 of 2003).
2. That the Municipality pursue an alternative approach to parking improvement based on the principles of the Provincial Sustainable Transport Programme.

3. That the Municipality seek a partnership with the Western Cape Government's Department of Transport and Public Works for support in implementing incremental improvements to parking services and the broader transport system, in line with the principles of the Provincial Sustainable Transport Programme.
4. That the municipality develop a relationship with Boulder in the USA who has similar characteristic as Stellenbosch in terms of student population, town size, agricultural activities, etc, and has successfully introduced initiatives that improve mobility and access in a sustainable manner.

7.2.4 Section 78(2) Resolution of Council

"16TH COUNCIL MEETING: 2018-03-28: ITEM 7.6.2

RESOLVED (nem con)

- (a) that this report be noted;*
- (b) that Council notes the attached report on the providing of sufficient public parking;*
- (c) that Council accepts that all the requirements of Section 78(1) in terms of investigating the feasibility of the provision of sufficient parking have been complied with;*
- (d) that Council, in terms of the Municipal Systems Act, Act 32 of 200, as amended, Section 78(2), accepts the scenario to "after having applied subsection (1), a municipality may, before it takes a decision on an appropriate mechanism, explore the possibility of providing the service through an external mechanism mentioned in section 76 (b).";*
- (e) that Council formally proceeds to the Municipal Systems Act, Section 78(3) process of exploring the possibility of providing the municipal service of parking through an external mechanism; and*
- (f) that a report on the outcome of this investigation be provided to Council, upon the completion of a Section 78(3) exercise in order for Council to take a Section 78(4) decision."*

7.3 Section 78(3), (4) & (5) of the MSA

- 7.3.1 After the Section 78(2) Council Resolution, at which time Council resolved to also look at the viability of an external service delivery mechanism, the mechanisms of the Section 78(3) requirements have to be followed:

7.3.2 MSA Section 78(3), (4) & (5)

“(3) If a municipality decides in terms of subsection (2) (b) to explore the possibility of providing the municipal service through an external mechanism it must—

- (a) give notice to the local community of its intention to explore the provision of the municipal service through an external mechanism;*
- (b) assess the different service delivery options in terms of section 76 (b), taking into account—*
 - (i) the direct and indirect costs and benefits associated with the project, including the expected effect of any service delivery mechanism on the environment and on human health, well-being and safety;*
 - (ii) the capacity and potential future capacity of prospective service providers to furnish the skills, expertise and resources necessary for the provision of the service;*
 - (iii) the views of the local community;*
 - (iv) the likely impact on development, job creation and employment patterns in the municipality; and*
 - (v) the views of organised labour; and*
- (c) conduct or commission a feasibility study which must be taken into account and which must include—*
 - (i) a clear identification of the municipal service for which the municipality intends to consider an external mechanism;*
 - (ii) an indication of the number of years for which the provision of the municipal service through an external mechanism might be considered;*
 - (iii) the projected outputs which the provision of the municipal service through an external mechanism might be expected to produce;*
 - (iv) an assessment as to the extent to which the provision of the municipal service through an external mechanism will—*
 - (aa) provide value for money;*
 - (bb) address the needs of the poor;*
 - (cc) be affordable for the municipality and residents; and*
 - (dd) transfer appropriate technical, operational and financial risk;*
 - (v) the projected impact on the municipality’s staff, assets and liabilities;*
 - (vi) the projected impact on the municipality’s integrated development plan;*

- (vii) the projected impact on the municipality's budgets for the period for which an external mechanism might be used, including impacts on revenue, expenditure, borrowing, debt and tariffs; and
- (viii) any other matter that may be prescribed.
- (4) After having applied subsection (3), a municipality must decide on an appropriate internal or external mechanism, taking into account the requirements of section 73 (2) in achieving the best outcome.
- (5) When applying this section a municipality must comply with—
 - (a) any applicable legislation relating to the appointment of a service provider other than the municipality; and
 - (b) any additional requirements that may be prescribed by regulation."

7.3.3 Section 78(3) Investigations

7.3.3.1 Notice to Local Community

- "(a) give notice to the local community of its intention to explore the provision of the municipal service through an external mechanism;"*

The Section 78(3)(a) notice was published on 12 July 2018. Copy of advertisements attached as Annexure B.

7.3.3.2 Service Delivery Options

- "(b) assess the different service delivery options in terms of section 76 (b), taking into account—*
- (i) the direct and indirect costs and benefits associated with the project, including the expected effect of any service delivery mechanism on the environment and on human health, well-being and safety;*
 - (ii) the capacity and potential future capacity of prospective service providers to furnish the skills, expertise and resources necessary for the provision of the service;*
 - (iii) the views of the local community;*
 - (iv) the likely impact on development, job creation and employment patterns in the municipality; and*
 - (v) the views of organised labour; and*

a. Direct and Indirect Costs and Benefits

i) Benefits

The major benefit of a formal parking service is that motorists can directly drive to an available parking bay, without having to unnecessarily driving around looking for parking. The application of the latest technology and a specific cell phone application will make it possible for motorists to identify any available parking area, book it and drive there directly without unnecessarily driving around looking for parking and contributing to traffic congestion.

In order to effectively reach parking, it must also be possible to reach parking directly off the major routes. By forcing vehicles to drive along minor routes, the vehicle flow capacity of roads is exceeded.

A further benefit is that time is saved by finding parking easier and quicker

Table 6.1 Benefits of an improved parking service

Present	Future
Insufficient no of parking bays	An additional 9 000 parking bays in Stellenbosch and 240 bays in Franshoek, or a reduction in traffic which then reduce the needs for parking
90% of motorist drive around looking for parking.	Motorists drive directly to a pre-booked parking area.
Access control outdated, slow and add to congestion.	Access control with modern and higher capacity which reduce traffic impact on adjacent streets.
Insufficient parking layout and configuration.	Improved layout configuration and parking system performance.
Ineffective cost recovery and fee collection.	Almost perfect monitoring and 100% fee recovery through application of technology.
Congested major routes as well as minor routes	Parking at correct position to facilitate mode change will reduce access times and relieve congestion

ii) Direct costs

The planned parking service to be run by the Stellenbosch Municipality is going to be more expensive than the current parking areas operated by a private company. The primary reasons for this are:

- A quality parking service with technologically advanced features will require a high initial capital outlay.
- The parking management and fee collection system will be upgraded, and strict service and maintenance schedules will be followed.
- Employment legislation (Labour Relations Act, Basic Conditions of Employment Act, Health and Safety Act) must be adhered to.
- Public safety will be a priority, with systems implemented to reduce accidents and personal security incidents.
- Fares are to be balanced between discouraging motorists from not using their private vehicles and recovering the costs of providing the parking infrastructure. This is a sensitive balancing act that can hamper the success of the project if not correctly implemented.

The costs of the proposed parking areas have been estimated but need to be refined as more detail designs are being done. It has been determined that a multiple story parking garage will on average be R150 000 per vehicle parked.

The estimated costs for the various parking areas are shown in Table 7.1 below:

Table 7.1 Estimated costs of parking facilities

Nr	Parking Site	Number of parking bays single floor	Cost	Number of parking bays for two floors	Cost	Number of parking bays for three floors	Cost	Number of parking bays for four floors	Cost
1	VDS North of Merriman	500	R 75 000 000	900	R 150 000 000	1350	R 225 000 000	1800	R 300 000 000
2	Bloemhof	200	R 30 000 000	350	R 60 000 000	500	R 90 000 000	650	R 120 000 000
3	Eikestad Mall	500	R 75 000 000	900	R 150 000 000	1350	R 225 000 000	1800	R 300 000 000
4	Stelkor	200	R 30 000 000	350	R 60 000 000	500	R 90 000 000	650	R 120 000 000
5	Die Braak	500	R 75 000 000	900	R 150 000 000	1350	R 225 000 000	1800	R 300 000 000
6	Checkers	100	R 15 000 000	150	R 30 000 000	200	R 45 000 000	250	R 60 000 000
7	Pick n Pay	350	R 52 500 000	650	R 105 000 000	950	R 157 500 000	1100	R 210 000 000
8	Techno Park	350	R 52 500 000	650	R 105 000 000	950	R 157 500 000	1100	R 210 000 000
9	R304 Entrance	600	R 90 000 000	1 100	R 180 000 000	1550	R 270 000 000	2000	R 360 000 000
10	Adam Tas Entrance	600	R 90 000 000	960	R 142 560 000	1440	R 267 300 000	2400	R 445 500 000
11	Klapmuts	600	R 90 000 000	960	R 142 560 000	1440	R 267 300 000	2400	R 445 500 000
12	Franschhoek	300	R 45 000 000	550	R 90 000 000	800	R 135 000 000	1050	R 180 000 000
13	Franschhoek Tennis Courts	300	R 45 000 000	550	R 90 000 000	800	R 135 000 000	1050	R 180 000 000

At current interest rates, the loans to provide these infrastructures can be serviced over a twenty-year period not taking into consideration price escalation. This calculation also assumes a parking occupancy of 75% for 25 days a month at proposed parking tariffs.

Detail business Plans need to be prepared to make a more accurate assessment of the business viability of providing the parking service.

Apart from the above costs, the operational costs to provide for include:

- Security costs
- Ticketing
- Maintenance
- Management
- Utility services

The initial Operating Business Plan will give an indication of the direct operating costs at a later stage. The operating income for the Section 78(1) report has been estimated to be R3,650,000 per month for an initial 2200 parking places. There seems to be a viable business case for the provision of these parking facilities from initial assessments.

In the wider perspective and looking into the better positioning of garages, the following requirements have been defined:

- First phase of Parking Garages to be placed close to multiple modes of transport
- First phase of Parking Garages must support the reduction of transport flows within the major routes connecting Stellenbosch
- First phase of Parking Garages must have the best possible vehicle absorption and disbursement
- First phase of Parking Garages must have a prospect of maximum viability
- Second or further phases only to be launched if many of the further aspects of Mobility and Town Planning has been introduced such as:
 - Working Public Transport
 - TOD culture established
 - NMT areas created
 - Universal Access

Table 7.2 below provides possibilities of initial parking facilities to be established and probable economic viability. It assumes bond loans can be obtained at 10% and redeemed over 20 years. The occupancy rate is set at 50%

Table 7.2: Probable Financial Information over a 20 Year Period

	Closed Garage equivalent in US, 5 levels at avg 400 vehicles per level	Proposed size of Garage	R150 000 per parking bay for Multi Story Parking; R1500 per bay for single level open parking	R6750 operating cost per parking bay	Avg parking tariff per hour	% of time that a vehicle is parked on a park space over 24 hours	Parking Income over 260 work days per annum at the chosen occupancy rate based on 24 hours	Annual Revenue minus Annual operating Cost	Bond repayments over 20 years at 10% interest rate	Net Revenue minus Annual Debt Coverage (parkin rate has been raised to the nearest cent to make this value positive)
Site	Description	Parking Spaces	Total Bond Issue Amount	Annual Operating Costs	Parking Tariff/ hour	Occupancy Rate	Annual Revenue	Net Revenue	Annual Debt Service & Coverage	Net Income Surplus/ (Deficiency)
Van der Stel Area	5 levels (2.5 below grade)	2000	R 300 000 000	R 13 500 000	R 7.74	50%	R 48 297 600	R 34 797 600	R 34 740 768	R 56 832
Eikestad Mall	4 levels (1.5 below grade)	2000	R 300 000 000	R 13 500 000	R 6.45	60%	R 48 297 600	R 34 797 600	R 34 740 768	R 56 832
Techno Park Area	5 levels (2.5 below grade)	1200	R 180 000 000	R 8 100 000	R 7.74	50%	R 28 978 560	R 20 878 560	R 20 844 456	R 34 104
Klapmuts	Only Ground Level – Open parking	100	R 150 000	R 675 000	R 2.22	50%	R 692 640	R 17 640	R 17 364	R 276
Franschoek	Only Ground Level – Open parking	200	R 300 000	R 1 350 000	R 2.22	50%	R 1 385 280	R 35 280	R 34 740	R 540
TOTAL		5500	R 480 000 000	R 21 600 000			R 77 276 160	R 55 676 160	R 55 585 224	R 90 936

iii) Table of Direct and Indirect Costs and Benefits

Table 7.3 Comparison of Section 76(b) Entities and the Likelihood of Acceptability

Sect 76(b)	Service Delivery Option	Direct & Indirect Costs and Benefits	Capacity of current and Future Service Providers	Views of Local Community	Impact on Development, Job Creation and Employment Patterns	the views of organised labour
(b)(i)	Municipal Entity	The cost involved in this will be very similar to costs incurred by a private body utilising the MSA section 81 and will therefore be addressed under the “any other Institution” below	There is no capacity within Stellenbosch Local Municipality nor the Cape Winelands District Municipality to be a Bulk Parking Service of Bulk Parking Garages.	See item (b)(v)	See item (b)(v)	Since current on-street and off-street parking is done by an External Mechanism, this additional parking will be acceptable
(b)(ii)	Another Municipality	The parking is performed by or on behalf of the Municipality itself. This Scenario is therefore not seen as a solution in this case	The parking is performed by or on behalf of the Municipality itself. This Scenario is therefore not seen as a solution in this case	See item (b)(v)	See item (b)(v)	Since current on-street and off-street parking is done by an External Mechanism, this additional parking will be acceptable
(b)(iii)	an organ of state	There no [arts of any organ of state that provides and manages parking on behalf of municipalities.	There no [arts of any organ of state that provides and manages parking on behalf of municipalities.	See item (b)(v)	See item (b)(v)	Since current on-street and off-street parking is done by an External Mechanism, this additional parking will be acceptable
(b)(iv)	community	Due to the very	Current Community	See item (b)(v)	See item (b)(v)	Since current on-street

	based organisation	large capital needed to build a parking garage, there are no community organisation within Stellenbosch that would be able to build parking and perform parking and management	based organisations do not have the capacity to own and operate this kind of project			and off-street parking is done by an External Mechanism, this additional parking will be acceptable
(b)(v)	any other institution	Should Council decide to rather use an external mechanism for service delivery then the Private Sector would have to be asked to Build Own Operate & Transfer after a time such as 20 years (BOOT) then this would possibly be the only entity that would be capable to build and operate a service worth a few hundreds of millions in Rand.	There are Private Entities that would have the capacity currently to BOOT this project and also their private entities that would in future have the capabilities to BOOT such a project	<p>This matter has been addressed at several Fora a such as:</p> <ol style="list-style-type: none"> 1. Mobility Forum 2. NMT Working Group 3. IDP 4. University Rector/ Mayor Forum 5. University Department of Engineering Forum 6. Ratepayers Associations <p>No objections were received when a proposal was made that an external Service Proved be approached to Build, Own, Operate and Transfer (BOOT) such a business</p>	The impact on Development, Job Creation and Employment patterns will be similar for each option. There would be assistance for future development. There would be the creation of new employment in the view of jobs such as Managers, Clerks, Technical Staff and Law Enforcement	Since current on-street and off-street parking is done by an External Mechanism, this additional parking will be acceptable

The following term is used within the table:

A BOOT(Build, Own, Operate and Transfer) structure of a private entity owns the works. During the concession period the private company owns and operates the facility with the prime goal to recover the costs of investment and maintenance while trying to achieve higher margin on project. The specific characteristics of BOOT make it suitable for infrastructure projects like highways, roads mass transit, railway transport and power generation and as such they have political importance for the social welfare but are not attractive for other types of private investments. BOOT is a method which find very extensive application in countries which desire ownership transfer and operations including. Some advantages of BOOT projects are:

- Encourage private investment
- Inject new foreign capital to the country
- Transfer of technology and know-how
- Completing project within time frame and planned budget
- Providing additional financial source for other priority projects
- Releasing the burden on public budget for infrastructure development.

The following type of company mechanisms are available for this type of process:

- Leases and concessions:

A further approach to service delivery is the conclusion of either lease or concession agreements. Such agreements are forms of public-private partnerships that are most common for services where large-scale capital investment is required. The agreements are characterised by an often long contractual period extending over many years, a contractor that is required to take charge of the assets and infrastructure associated with the service for the duration of the contract, which requires substantial investment from the contractor's side. Because the contractor is taking on more risk, it normally demands the transfer of the responsibility for revenue collection in order to minimise financial losses. The long contract period is usually long enough to allow the contractor to recover its initial investment through the revenue that is generated from the provision of the services. In almost all instances the contractor will require ownership of the assets for the duration of the contract period. When the contract lapses, ownership and infrastructure is then transferred to the municipality.

Lease and concession agreements can be concluded in various formats. There are so-called build-operate-transfer (BOT) agreements, where a contractor builds an asset, operates it for a period of time and then transfers it to a municipality. Then there is the build-own-operate-transfer (BOOT) agreement, which further gives ownership of the assets or infrastructure to the contractor for the length of the contract period. Lastly, there is also a build-operate-transfer (BOTT) variation which specifically provides for training for municipal employees during the contract period, which will then operate and manage the facilities and services, after the contract period has come to an end.

Apart from the obvious benefits of such partnerships, there are high financial risks if such partnerships are managed or structured poorly. To avoid such negative possibilities, national government has put forward certain regulatory requirements to ensure public accountability and consumer protection.

From the above it is clear that the Bulk Parking Garage concept is most likely to be most effective when operated by an external Service Provider on a basis of Build, Own, Operate and Transfer basis or similar.

The following possibilities of Service Delivery vehicles are available in general:

1. External Service Deliverer (ESD) via a Service Delivery Agreement (SDA)

Utilising Section 81 to 84 of the Municipal Systems Act.

2. ESD via Municipal Entity

Utilising Chapter 8A of the Municipal Systems Act Section 86B

(1)(a) Private Company

Municipal entities are independent organisations that perform municipal services on behalf of a municipality and the municipality controls the majority shareholding.

Board members of Municipal Owned Entities / Utilities are required to ensure that they meet a complex set of demands including the strategic aims of the Entity / Utility, the mandate of Municipal Leaders and the requirements of the Municipal Systems Act, Municipal Finance Management Act, Companies Act and The King Code of Governance Principles for South Africa and the King Report on Governance (King III). Municipal entities operate in a highly regulated environment which could prohibit performance (conformance against performance). Like all other businesses they have to perform in order to, among others, grow the business whilst managing risks, create and retain jobs.

3. ESD via Municipal Entity

Utilising Chapter 8A of the Municipal Systems Act Section 86B

(1)(b) Service utility

4. Utilising Chapter 8A of the Municipal Systems Act Section 86B

(1)(c) Service utility

Multi-Jurisdictional Service Utility

The Multi-Jurisdictional Service Utility is provided that two or more municipalities, by written agreement, may establish a multi-jurisdictional service utility to perform any function or power envisaged by section 8 of the Systems Act, in their municipal areas or in any designated parts of their municipal areas. The Minister may, in the national interest and in consultation with the Cabinet member responsible for the functional area in question, request two or more municipalities to establish a multi-jurisdictional service utility to conform to the

requirements of national legislation applicable to the provision of a specific municipal service.

5. Public Private Partnership as per the Municipal Finance Management Act

Section 120 of the MFMA applies

The PPP process refers to the transfer of ownership from municipalities to private or community-based entities. The transfer of ownership in this respect particularly refers to the sale of municipal assets, together with the transfer of responsibilities for the management of such services. Such a process is more generally referred to as privatisation. Although privatisation should not easily be considered with reference to primary/core municipal services such as water, electricity and solid waste disposal, it certainly could have positive outcomes in respect of secondary services such as municipal.

a. Advantages and Disadvantages of Various Entities

Table 7.4: Advantages and Disadvantageous of Various Entities

Legal Section	Entity Description	Advantages for Stellenbosch Municipality	Disadvantages for Stellenbosch Municipality
Section 81 MSA	External Service Deliverer(ESD) via a Service Delivery Agreement (SDA)	All desired service will be addressed in the SDA. All risks arising from this, is to be carried by the Service Provider	No additional income from parking, but then also no expenses
Section 86B(1)(a)	Municipal Entity – Private Company	None	All risks to provide capital to build operate and maintain a garage will have to be carried by the Municipality
Section 86B(1)(b)	Municipal Entity – Service Utility		Municipality has to carry most of the Risk
Section 86B(1)(c)	Municipal Entity – Multi-jurisdictional Service Utility		Municipality has to carry most of the Risk

b. Capacity and Future Capacity of Service Providers

Some of the current known role-players in the field of Parking Management are:

- AfriPark
- Katanga
- AcePark
- Federal Parking Management

- Interpark (PTY) Ltd
- City Car Park

It is note that most of the above manages parking facilities an do not necessarily build or own such facilities. In order to make this work one might want to attract a consortium of financiers, builders and operators

c. The Views of the Local Community

Various meetings where held with the Community at the following fora:

- (i) Mobility Forum
- (ii) IDP Meetings
- (iii) TOD Project Meetings
- (iv) Mayor/Rector Forum
- (v) Meetings with University of Stellenbosch: Department of Engineering

No objections were received from the community upon the concept of Bulk Parking, however, it is envisaged that the actual positioning of the parking garage may have to be workshopped since parking must be coordinated with the total Mobility expectations of Stellenbosch. It has also been mentioned, that in order for the whole Mobility synchronism to work, it is necessary to alter or start with many parts at the same time, eg. If parking is to be increased and positioned correctly, then public transport must also be altered. The same with TOD, NMT processes.

d. The likely impact on development, job creation and employment patterns in the municipality;

The parking garage system when managed by an external mechanism does not create jobs on a large scale. The systems are largely automatic, and the staff needed on site would be minimal. The impact on Job Creation would therefore negligible. However as mentioned before, parking is part of a larger Mobility System and it has a primary function of reducing traffic by uplifting public transport. The impact of enlarging the public transport would however have a medium impact on the creation of jobs.

The direct likely impact on development, job creation and employment patters in the Municipality would be minimal. The indirect impact through the Mobility System would hover be relevant.

e. The views of organised labour

The current on-street parking and off-street parking systems have been outsourced to a private company and have been so for the past number of years. There has been no objection from Labour on this outsourcing project. The provision of parking assessed by this report will bring no negative change to the current project but may increase the provision of labour slightly. The providing of permanent operational labour will have a minimal impact on the current internal labour market.

7.3.3.3 Feasibility Study

“Section 78(3)(c) Feasibility Study

- (c) conduct or commission a feasibility study which must be taken into account and which must include—
 - (i) a clear identification of the municipal service for which the municipality intends to consider an external mechanism;
 - (ii) an indication of the number of years for which the provision of the municipal service through an external mechanism might be considered;
 - (iii) the projected outputs which the provision of the municipal service through an external mechanism might be expected to produce;
 - (iv) an assessment as to the extent to which the provision of the municipal service through an external mechanism will—
 - (aa) provide value for money;
 - (bb) address the needs of the poor;
 - (cc) be affordable for the municipality and residents; and
 - (dd) transfer appropriate technical, operational and financial risk;
 - (v) the projected impact on the municipality’s staff, assets and liabilities;
 - (vi) the projected impact on the municipality’s integrated development plan;
 - (vii) the projected impact on the municipality’s budgets for the period for which an external mechanism might be used, including impacts on revenue, expenditure, borrowing, debt and tariffs; and
 - (viii) any other matter that may be prescribed.”

- a. a clear identification of the municipal service for which the municipality intends to consider an external mechanism;

The service to be rendered is:

- The Designing, Planning and Constructing a multi-story parking garage capable of housing an amount of 2000 parked cars at peak
- Funding of all costs related to this parking garage.
- Owning and managing this facility for a period of 20 years
- Applying tariffs which has been consulted with the Municipality and which tariffs have been annually approved by the Council of the Municipality

- b. an indication of the number of years for which the provision of the municipal service through an external mechanism might be considered

- The operation must be built, owned, operated for 20 years and thereafter transferred to the Municipality. The Municipality may extend the period of operation
- c. the projected outputs which the provision of the municipal service through an external mechanism might be expected to produce;
- The project has to provide a 24-hour operation of providing a parking facility for 2000 vehicles.
 - The parking facility must be maintained as national maintenance prescripts and if these are not available then to international recognised maintenance codes
 - Safety and Security will be provided.
 - Adequate fire prevention and extinguishing equipment and systems will be provided and maintained.
 - Protection against build-up of CO and CO₂ gasses will be provided and levels maintained below standard health requirements.
 - It shall be possible to park cars at a rate of 2000 cars per hour and to release cars at a rate of 2000 cars per hour at which time entrance and exit control and payment equipment shall enable this speed to be achieved.
 - Elevators and stairs shall also allow the people from cars to enter and exit at a rate commensurate to the maximum required tempo of arriving and exiting cars
 - Provision shall be made to accommodate electrically powered vehicle and it shall provide facilities for the charging of such vehicles.
 - Provision shall also be made to extract gasses that may emanate from the charging of battery-operated vehicles.
- d. an assessment as to the extent to which the provision of the municipal service through an external mechanism will—
- (aa) provide value for money;
 - (bb) address the needs of the poor;
 - (cc) be affordable for the municipality and residents; and
 - (dd) transfer appropriate technical, operational and financial risk;
- Refer to Table 7.X below
 - The table indicates that a sufficient profit will be realised
 - The needs of the poor are not directly addressed, but the parking is part of the bigger picture to provide more housing. More housing will create at least one additional job per house opportunity for the poor. The parking garage will provide further job opportunities for staff operating the garage.
 - The parking fee was calculated at R2/30 minutes or R4.00 per hour which is below the average parking fee within the greater Cape Town. At this rate residents will benefit. The municipality has not received any income from these cars currently and will not get any income from the cars to be parked. It will however receive a bigger income from the sales of all services to the parking garages.
 - All associated financial risk of the garage and all operational and maintenance risk will have been transferred to the Service Provider

Table 7.5 Selected Parking Proposed to be Created and Managed through an External Mechanism

Site	Description	Parking Spaces	Total Bond Issue Amount	Annual Operating Costs	Parking Tariff/ hour	Occupancy Rate	Annual Revenue	Net Revenue	Annual Debt Service & Coverage	Net Income Surplus/ (Deficiency)
Van der Stel /Dennesig Area	5 levels (2.5 below grade)	2000	R 300 000 000	R 13 500 000	R 7.74	50%	R 48 297 600	R 34 797 600	R 34 740 768	R 56 832
Eikestad Mall	4 Levels (1.5 below grade)	2000	R300 000 000	R13 500 000	R6.45	60%	R 48 297 600	R 34 797 600	R 34 740 768	R 56 832
Techno Park Area	5 levels (2.5 below grade)	1200	R 180 000 000	R 8 100 000	R 7.74	50%	R 28 978 560	R 20 878 560	R 20 844 456	R 34 104
TOTAL		3500	R 480 000 000	R 21 600 000			R 77 276 160	R 55 676 160	R 55 585 224	R 90 936

Loan taken at 10% interest

Redemption period 20 years

Capital cost per vehicle R150 000

It is noted that in the example above a tariff of R7.74 per hour would be needed to make the operation feasible.

- e. the projected impact on the municipality's staff, assets and liabilities;
 - No impact from operational and maintenance of the Garage will impact the staff.
 - Law enforcement may be needed from time to time to enforce the By Laws but is expected to be less than the current disorganised state.
 - The garage will become the liability of the Municipality after 20 years, but it would be possible to put the operations and maintenance out on contract for a further number of years
- f. the projected impact on the municipality's integrated development plan;
 - Since the Garage is to provide a part of the future Mobility Plan already taken up in the IDP and SDF, no additional matters will have to be taken up in the IDP, in fact this service makes the IDP requirements come true.
- g. the projected impact on the municipality's budgets for the period for which an external mechanism might be used, including impacts on revenue, expenditure, borrowing, debt and tariffs;
 - Since the project is to be run as a BOOT project, no impact will be realised on budgets, revenues, expenditure, borrowing debt and tariffs. None of the current unorganised service has an impact on these issues and will not have an impact when organised. This will be transferred to the Service Provider.
- h. any other matter that may be prescribed.
 - No further matters are prescribed and as such no matter is expected to more detrimental or more profitable to the Municipality as is currently the case.

7.3.3.4 Section 78(4)

(4) After having applied subsection (3), a municipality must decide on an appropriate internal or external mechanism, taking into account the requirements of section 73 (2) in achieving the best outcome.

Section 78(4) refers to Section 73(2):

(2) Municipal services must—

- (a) be equitable and accessible;
- (b) be provided in a manner that is conducive to—
 - (i) the prudent, economic, efficient and effective use of available resources; and
 - (ii) the improvement of standards of quality over time;
- (c) be financially sustainable;
- (d) be environmentally sustainable; and
- (e) be regularly reviewed with a view to upgrading, extension and improvement.

Table 7.6: Assessment of Internal vs External Initiative

Section	Parking Initiative must conform to	Internal	External	Scoring	
				Internal	External
73(2)(a)	Equitable and accessible	Equitable: One of the reasons for bulk parking is to provide space for cars to be parked overnight such that TOR developments can take place. Can park during the day to use public transport which would be less costly. Accessible: Parking will be much more accessible than currently	Equitable: One of the reasons for bulk parking is to provide space for cars to be parked overnight such that TOR developments can take place. Can park during the day to use public transport which would be less costly. Accessible: Parking will be much more accessible than currently	1	1
73(2)(b)	conductive to— (i) the prudent, economic, efficient and effective use of available resources; and (ii) the improvement of standards of quality over time;	No. The imposition of this Risk would be too much for an internal mechanism at cost of a parking garage in the vicinity of R500million per unit	Risk much more favourable for an external mechanism, since it would concentrate on a single service and effectively last economically for a period of 20 years	0	1
73(2)(c)	be financially sustainable	No. As above	Yes. As above	0	1
73(2)(d)	be environmentally sustainable;	Yes. By nature, the Bulk Parking facility will concentrate vehicles and allow the continuation of a much more acceptable environmental method of transport such as rains, NMT	Yes. By nature, the Bulk Parking facility will concentrate vehicles and allow the continuation of a much more acceptable environmental method of transport such as rains, NMT	1	1
73(2)(e)	be regularly reviewed with a view to upgrading, extension and improvement	Will be done on a 5-year basis to fit in with masterplan updating	Will be done on a 5-year basis to fit in with masterplan updating	1	1
Scoring				3	5

From the above it is clear that the External Mechanism, in this case, should be the preferred option.

Chapter 8: Conclusion



8. Conclusion

It is imperative to realise that the provision of parking cannot be considered in isolation. Parking is the beginning or end of a trip and the trip is a method of being transported from one end to another. This transport motion can be done via various methods, each of them having an impact on road congestion.

These transport movements are choice we make but choosing the wrong option from a transport engineering perspective will lead to an unwanted result. It is just not possible to provide sufficient road widths and parking to allow each and every one of us to reach a destination via a private vehicle. We will overcrowd high ways and create tremendous congestion up to a point where the roads go into jam situation or gridlock.

Options are available to co-share vehicles thereby reducing the number and cost of vehicles going to a destination. The use of public transport becomes vitally important to reduce traffic on Roads.

Stellenbosch Municipality has a few unique situations where private vehicles are used by students traveling to university every day. A large number of people working in the towns of Stellenbosch also drive from homes that are outside of Stellenbosch. This creates a number of vehicles travelling to and from Stellenbosch which are largely overcrowding the major and minor routes. In order to solve this problem, we need to simultaneously do the following:

1. Reduce the travelling of single passenger vehicles to and from Stellenbosch by providing more comfortable and practical public transport. Various discussions are held with PRASA, Taxi Associations and Bus companies to provide transport
2. Since Stellenbosch does not actively cater for the working middleclass to stay and work in Stellenbosch, the Transit Oriented Development concept has to be initiated to TOD is currently being launched to allow working public and students to operate from Stellenbosch as a base.
3. Major routes are being adjusted to allow vehicles to more directly to major venues such as Techno Park
4. Old rules of preventing First and Second year students to drive cars in Stellenbosch are being brought back.
5. With the above being done to reduce cars, the municipality can now concentrate on providing the correct number of parking spaces, but at venues that will have an effect of reducing long trips.

Since the cost of Parking garages is very high and too high a risk for the municipality, it is proposed that Private Sector be invited to build, own, operate and transfer the function of parking provision. We are positive that there would be sufficient business motivation to provide such a service and also to keep parking tariffs to a level that the public in general can afford

Chapter 9: Recommendations



9. Recommendations

It is recommended:

- 9.1 That this report be noted.
- 9.2 That Council accepts that all the requirements of Section 78(3) in terms of investigating the feasibility of the provision of sufficient parking, has been complied with.
- 9.3 That Council accepts that parking forms an integral part of the total Mobility concept within Greater Stellenbosch Area and relates to other major parts such as: Traffic Flow, Public Transport (PT), Non-Motorised Transport (NMT), Transit Oriented Development (TOD), and Movement of Disabled Persons (normally seen as a primary part of NMT).
- 9.4 That Council notes that in order to alleviate the parking process as a whole, matters such as PT, NMT, TOD must also be addressed in synchronisation, as this will directly affect the quantity and positioning of parking,
- 9.5 That Council, in terms of the Municipal Systems Act (MSA), Act 32 of 2000, as amended, Section 78(4), accepts that the method of providing parking generally be considered as follows:
 - a. Provision of open one level parking space needs, be performed on an internal mechanism
 - b. Provision of multi storied parking space needs, be performed on an external mechanism.
- 9.6 That Council approves the provision of parking as a first phase as mentioned hereunder, which must be in line with future mobility developments, as the final mobility status can by nature not be resolved at this time.
- 9.7 That Council proceed with the initial provision and upgrade of parking spaces as follows:
 - 9.7.1 That the legislative process be commenced with to provide multiple level parking, and management thereof, utilising an External Mechanism of parking in the following areas:
 - a. Eikestad Mall Parking area bounded by Andringa -, Victoria, and Ryneveld Streets. Portion of erf 1692, erven, 1969, 1972, 1973, 1974, 1975, 1976, 6402 and 6636.
 - b. Techno Park area, considering the area bounded by Tegno Road, Termo Avenue and Proton Road. Portion of erf 13171
 - 9.7.2 That the following areas, as a first phase, be upgraded and/or developed as a single layer open space parking area, utilising an internal service delivery mechanism:
 - a. Dennisig Existing Parking Area, entrance in Hoffman Road, Part of Erf 235
 - b. Municipal Court Existing Parking Area, entrance from Pappegaai Road, Erf 528
 - c. Aandklas Existing Parking Area, entrance from Du Toit Road Part of Erf 235
 - d. New Parking Area Bounded by Borcherd Road and Andringa Street to be considered as an extension of the public parking on erf 2529
 - e. New Parking Area Bounded by Jan Cilliers Road, Ds Botha Road and Muller Road to be considered as new parking area. Part of erf 175/0
 - f. Parking area to be upgraded at the old tennis courts, Franschoek, Erf 1538.

- 9.8 That Council proceeds with the setting up of a Service Delivery Agreements for the provision of Bulk Parking, as required by Section 80(1) & (2), of the MSA and in particular section 80(1)(b) (which prescribes an SDA with a Private Company) for the areas mentioned under 9.7.1
- 9.9 That the Service Delivery Agreement be approved by Council as a draft SDA prior to Community Participation takes place.
- 9.10 That the matter of providing a synchronised total mobility network be urgently pursued with all the role-players participating in the mobility arena which includes Public Transport, Non-Motorised Transport, Transit Oriented Development, Parking and Universal Access

Chapter 10: Acknowledgements

9.1 Writer and Compiler of this report:

J G Louw Pr.Eng.

Director: Infrastructure Services: Municipality of Stellenbosch

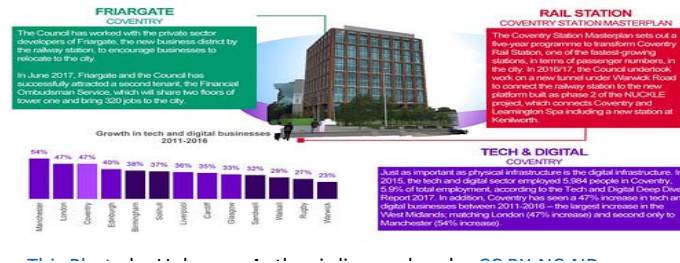
9.2 Contributions:

1. Prof. Dr. Johann Andersen: Stellenbosch Smart Mobility Launch Lab
2. Megan Bruwer: Stellenbosch Smart Mobility Launch Lab
3. Johan Fullard – Senior Manager: Roads, Transport, Traffic and Stormwater: Municipality of Stellenbosch
4. SMEC Consulting Engineers

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9. Stellenbosch Municipality Spatial Development Framework Final draft for submission to Council July 2019
10. Western Cape Government: Provincial Sustainable Transport Programme
11. Stellenbosch Municipality Non-Motorised Transport Policy
12. Stellenbosch Municipality Universal Access Policy Framework

The End



ANNEXURE B

November 2017

Bulk Parking Section 78(1) Assessment

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1. Introduction

1.1 Background

Stellenbosch is experiencing severe traffic congestion due to various reasons including the undersupply of parking facilities. In an attempt to relieve the traffic congestion in Stellenbosch, the municipality embarked on a number of projects which include:

- The improvement of NMT facilities
- The development of rideshare and public transport through the Large Employer Trip Reduction Program (LETRP) project
- The investigation of into an Integrated Public Transport Network
- Possible TOD development

All of these alternative solutions are aimed at reducing the demand for travelling by private vehicle. The provision of parking is not a demand side management strategy, but rather a supply side solution to addressing the congestion problem.

The town of Stellenbosch and Franshoek has developed over more than 250 years. The development started before the advent of the private motor vehicle. Most road reserves are therefore not responding to the need for a hierarchical road network and are further limited by the heritage features such as water channels and historical perimeter walls. Most of the centre of town was zoned for residential purposes many years ago. They have been rezoned to business over decades and densification took place to such an extent that adequate parking could not be provided on-site.

Off-street parking has become inadequate and visitors to the centre of Stellenbosch do not get parking the first time they arrive at their desired destination. A study undertaken earlier this year found that 90% of vehicles entering Andringa-, Church- and Ryneveldt Streets did not get parking the first time they entered these streets. They will therefore have to drive around a number of times before they could find a parking and contribute to the congestion being experienced.

The Comprehensive integrated Transport Plan (CITP), which is a statutory strategy document, also identified the shortage of parking a challenge that need to be addressed.

Council approved at its 12th Council meeting held on 27 September 2017 that:

- a) A Section 78 process be launched and that an internal parking service delivery mechanism be investigated through the Section 78(1) of the Systems Act (Act No 32 of 2000).
- b) That parking service delivery increase be based on the towns of Stellenbosch, Franshoek and Klappmuts

- c) That a formal report be submitted to Council as required by Section 78(2), which will indicate the best way of rendering internal parking or recommendations to a possible external method of rendering parking services.

1.2 Methodology and Report Layout

Section 78(1) of the MSA sets out the criteria and process that must be followed when deciding on the mechanism to be used for service provision. This report, therefore, adopts the structure set out in Section 78(1). The following sources of information have been used:

- Council approved documents: the IDP and the CIP (and related budget information).
- The original decision to do a Section 78(1) assessment.
- Interviews with key officials within the Municipality.
- Consultation with the relevant labour unions.

The document is structured as follows:

- **Chapter 2** outlines the nature and extent of the service envisaged.
- **Chapter 3** describes the requirements of the Municipal Systems Act.
- **Chapter 4** follows the MSA process and evaluates the suitability of an internal mechanism to deliver the service.
- **Chapter 5** summarises the conclusions.
- **Chapter 6** sets out the recommendations of the review.

2. Provision of Municipal Public Parking

This chapter outlines the nature and extent of the public parking service provision envisaged by the Municipality. It gives an indication of the resources that would be required to operate and manage the service.

2.1 Endorsement by the CITP and the IDP

The Municipality has an approved Integrated Development Plan (IDP) for the period 2012 to 2017. A component plan to the IDP is the Comprehensive Integrated Transport Plan (CITP) for the period 2015 – 2020, which has also been approved by the Municipal Council. The CITP includes proposals for the development of more parking areas. The following principles guide the provision of public parking:

- Compliance with the Department of Transport guidelines for parking requirements in terms of the Technical Recommendation for Highways TMH16 and 17.
- Compliance with the geometric and configurative requirements as prescribed in the Department of Transport TMH 17
- Compliance to the municipal zoning scheme
- Improve parking services and quality of life of residents.
- Provision of parking on the periphery of the town centre to be still within walking distance from the centre of town or in association with a shuttle service if parking is provided outside of town
- Financial sustainability

2.2 The extent of the parking service envisaged.

The portions of land identified for the provision of parking in Stellenbosch has been identified and are as follows:

- The Braak along Bird and Alexander streets
- Existing municipal parking behind the Council Hall
- Bloemhof parking area in Van Riebeeck Street.

The location of these sites are shown in Figure 2.1

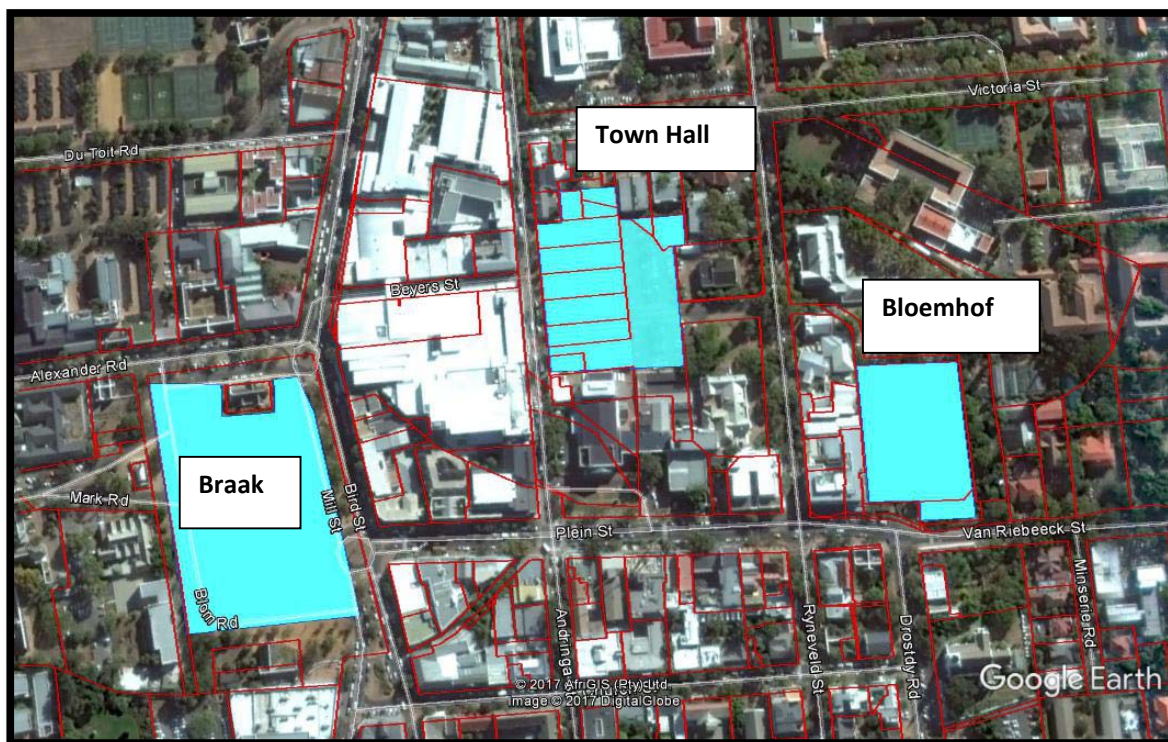


Figure 2.1: Location of proposed public parking areas.

The provision of the public parking service will be as follows:

- **The Braak**

The parking will be provided underground to keep the open space that has heritage status. It could be considered to provide double storey underground parking if feasible. The area is approximately 15000m² in extent and will be able to accommodate 1000 parking bays.

- **Bloemhof Parking Area**

This 7017m² area is currently being used as a parking area. Most people parking here work in the Ecclesia Building that house the municipal Engineering- and Corporate Services Departments. Day visitors also use the parking at a daily rate of R45 per vehicle. The area has a gravel surface and has capacity of accommodating 250 vehicles. A three level parking area will be provided here, with one level being underground and two above ground. A total of 720 vehicles will eventually be accommodated here.

- **Behind Town Hall**

The parking behind the Town Hall will be provided by the redevelopment of the existing parking area to a three storey parking facility, with one level being underground. The area is 10,600m² in extent and will be able to accommodate 1100 parking bays.

The land indentified for the provision of public parking in Franshoek is the old tennis court located behind the Franshoek town hall as shown in Figure 2.2.

I



Figure 2.2: Location of Parking Area in Franshoek

3. Requirements of the Municipal Systems Act

3.1 The responsibility

Section 78 (1) of the Municipal Systems Acts states that:

“When a municipality has in terms of Section 77 to decide on a mechanism to provide a municipal service in the municipality, or to review an existing mechanism”

Accordingly, a Municipality:

- a) Must first assess –
 - i. The direct and indirect costs and benefits associated with the project if the service is provided by the municipality through an internal mechanism, including the expected effect on the environment and on human health, well-being and safety;
 - ii. The municipality’s capacity and potential future capacity to furnish the skills, expertise and resources necessary for the provision of the service through an internal mechanism mentioned in section 76(a);
 - iii. The extent to which the re-organisation of its administration and the development of the human resource capacity within that administration, as provided for in sections 51 and 68, respectively, could be utilised to provide a service through an internal mechanism mentioned in section 76 (a);
 - iv. The likely impact on development, job creation and employment patterns in the municipality, and
 - v. The views of organised labour; and
- b) It may take into account any developing trends in the sustainable provision of municipal services generally.

Section 78(2) of the MSA then states that, after having applied subsection (1), a municipality may -

- a) Decide on an appropriate internal mechanism to provide the service; or
- b) Before it takes a decision on an appropriate mechanism, explore the possibility of providing the service through an external mechanism mentioned in section 76(b).

What the above means is that when a municipality wants to deliver a new service, it must first decide whether it is broadly feasible to do so internally or whether it should consider outsourcing the service provision.

3.2 Definitions

Key considerations in the interpretation of the MSA relate to the definitions of the term “service”, and “mechanism”.

A "Municipal service" is defined as "a service that a municipality in terms of its powers and functions provides or may provide to or for the benefit of the local community irrespective of whether –

- a) such service is provided, or to be provided, by the municipality through an internal mechanism contemplated in section 76 or by engaging an external mechanism contemplated in section 76; and
- b) fees, charges or tariffs are levied in respect of such a service or not”.

For the purposes of this review the parking service includes not only the provision of the parking area, but related services such as fee collection, security, ticketing systems, intelligent transport systems and facilities.

It is also useful to draw a distinction between the provision of a municipal service, on the one hand, and the actions taken and decisions made by a municipality in relation to a municipal service, on the other. The terms "service provider" and "service authority" are sometimes used to describe those two roles. Municipalities can, and often do, outsource the provision of municipal services, in terms of a service delivery agreement. A private (or public) company is then the service provider and the municipality remains the service authority.

The term “mechanism” is deemed to refer to either an internal mechanism (defined by section 76(a) as a department, business unit or any other component of the Municipality’s administration) or an external mechanism (a municipal entity, another municipality, an organ of state, a community based organisation or other NGO, or any other institutions, entity or person legally competent to operate a business activity).

3.3 The Methodology for Assessment

Section 78 (1) sets out the method by which the delivery of the service via an internal mechanism is to be assessed. This report adopts the s78 (1) methodology.

3.4 Criteria for Assessment

In terms of Section 73(2), the municipality has the duty to ensure that the delivery of its services adheres to the following guidelines:

Municipal services must be

- a) equitable and accessible;
- b) provided in a manner that is conducive to:
 - i. The prudent, economic, efficient and effective use of available resources; and
 - ii. The improvement of standards of quality over time;
- c) financially sustainable;
- d) environmentally sustainable; and
- e) regularly reviewed with a view to upgrading, extension and improvement.

Thus, the Section 78(1) investigation must consider the internal mechanisms for compliance with the above requirements.

4. Assessment of Service Delivery

This section sets out the assessment for internal service delivery, using the structure provided by section 78(1) of the MSA.

4.1 Direct and indirect costs and benefits including the effect on the environment, human health, wellbeing and safety

The assessment undertaken here is at a high level, in order to give an indication of the resources required by the Municipality and the economic, environmental and social impact of providing the service internally.

Transport is widely recognised as a key driver of socio-economic growth and development, particularly in developing and emerging economies where many citizens are unemployed. The need for an efficient, effective, affordable and safe transport system to support economic growth and development is particularly relevant in South Africa. Indeed, recognition of the central role to be played by transport in South Africa's growth and transformation agenda is repeatedly highlighted in the National Development Plan 2030.

Parking areas use valuable land to accommodate vehicles, which could alternatively be used for higher intensity economic activity. By not providing parking on the other hand can contribute to higher frustration for all road users as a result of increased traffic congestion. An earlier study in the tourism centre of Stellenbosch revealed that 90% of vehicles entering this area do not find parking the first time they enter, but drive around looking for parking, adding to the already congested traffic situation. There is also the belief that providing more parking bays will attract more traffic to the already congested CBD of Stellenbosch. Although this seem to be a logical consequence, the bulk of the parking will be provided at the Braak site, which will be accessed from Alexander Street, which will intercept traffic from the busy R44 before they enter the CBD. Also as previously mentioned, vehicles will be able to drive immediately and direct to available parking areas, preventing congestion from driving around looking for parking.

Movement into and around the Municipality is hampered by a lack of good quality public parking areas and good quality parking services. The development of such services will help to facilitate safe, reliable and efficient access to business activities in the CBD.

4.1.1 Direct and Indirect Costs and Benefits

Benefits

The major benefit of a formal parking service is that motorists can directly drive to an available parking bay, without having to unnecessarily driving around looking for parking. The application of the latest technology and a specific cell phone application will make it possible for motorists to identify an available parking area, book it and drive there directly without unnecessarily driving around looking for parking and contributing to traffic congestion.

Table 4-1 Benefits of an improved parking service

Present	Future
Insufficient no of parking bays	An additional 2200 parking bays in Stellenbosch and 240 bays in Franshoek.
90% of motorist drive around looking for parking.	Motorists drive directly to a pre-booked parking area.
Access control outdated, slow and add to congestion.	Access control with modern and higher capacity which reduce traffic impact on adjacent streets.
Insufficient parking layout and configuration.	Improved layout configuration and parking system performance.
Very poor cost recovery and fee collection (below 30%).	Almost perfect monitoring and 100% fee recovery through application of technology.

Direct costs

The planned parking service to be run by the Stellenbosch Municipality is going to be more expensive than the current parking areas operated by a private company. The primary reasons for this are:

1. A quality parking service with technologically advanced features will require a high initial capital outlay.
2. The parking management and fee collection system will be upgraded and strict service and maintenance schedules will be followed.
3. Employment legislation (Labour Relations Act, Basic Conditions of Employment Act, Health and Safety Act) must be adhered to.
4. Public safety will be a priority, with systems implemented to reduce accidents and personal security incidents.
5. Fares are to be balanced between discouraging motorists from not using their private vehicles and recovering the costs of providing the parking infrastructure. This is a sensitive balancing act that can hamper the success of the project if not correctly implemented.

The costs of the proposed parking areas have been estimated, but need to be refined as more detail designs are being done. The estimated costs for the four parking areas are shown in Table 4.1 below:

Table 4-22 Estimated costs of parking bays

Parking Area	Estimated Costs
Franshoek Tennis Courts	R21,600,000
The Braak	R92,086,856
Bloemhof.	R63,000,000
Behind City Hall	R94,000,000

At current interest rates, the loans to provide these infrastructure can be serviced over a ten year period not taking into consideration price escalation. This calculation also assumes a parking occupancy of 75% for 25 days a month at current parking tariffs.

Detail business Plans need to be prepared to make a more accurate assessment of the business viability of providing the parking service.

Apart from the above costs, the operational costs to provide for include:

- Security costs
- Ticketing
- Maintenance
- Management
- Utility services

The service is expected to commence operations in Year 5 (2023/24).

The initial Operating Business Plan will give an indication of the direct operating costs at a later stage. The operating income has been estimated to be R3,650,000 per month. Their seem to be a viable business case for the provision of these parking facilities from initial assessments.

4.1.2 Environment

Parking Garages will accommodate the high number of private vehicles visiting the CBD. The current shortfall of parking result in cars idling around and driving around looking for parking, causing

excessive CO² emissions and congestion which negatively impact the environment. The provision of the shortfall in parking will reduce the unnecessary driving and idling and subsequently the CO² emissions. Traffic congestion will also be reduced. It must be stated that this is only true as long as the parking provision aims to address the shortfall in parking in the CBD and not wanting to provide unnecessary more parking bays. In light of the above, the overall impact on the environment is expected to be positive – other than the short-term impact of noise pollution etc. caused by construction.

4.1.3 Human Health, Wellbeing and Safety

The impact on human health, wellbeing and safety is expected to be positive, since the intended project places a particular emphasis on the improvement of safety and security. Reduced levels of frustration associated with looking for parking and idling will improve human wellbeing. The conditions of the existing parking areas are also bad and the quality of the facility and the service to be provided will be conducive for a more healthy and safe environment and will also improve overall wellbeing.

4.2 Stellenbosch Municipality's capacity and potential future capacity to furnish the necessary skills, expertise and resources

In order to run the envisaged parking service internally, the Stellenbosch Municipality would need to develop sufficient organisational capacity to perform the necessary functions.

4.2.1 Understanding the functions required

There are a range of strategic and operational functions that need to be fulfilled in order for a parking system to run effectively and efficiently. These functions are described below.

- **Operational planning:** this includes the technical design of the service (demand assessment, access to the facility, vehicle maneuverability and pricing strategy) and ongoing service refinement.
- **Operations:** The provision of the actual parking service on a set layout and configuration with the location of the paypoints at points convenient for motorists and the minimum delay at the access points. Delays can rather be experienced at the pay points to reduce traffic congestion. This function includes operations management, service monitoring, driver vehicle operations and incident response (e.g. ticketpayment machines bear down).
- **Facility Management:** The specialised management of the facility required to provide the parking service, including procurement, maintenance and servicing, cleaning, insurance, accident administration, licensing and financial asset management.

- **Marketing and Communications:** is focused on publicising the parking service to the community to encourage service patronage, communicate service changes or updates and to distribute motorist information in a usable format. An additional aspect of the communication is the ability to identify available parking bays through a downloadable application. The operation of the application must be managed and maintained to ensure effective communication that ensures optimum operation of the parking area.
- **Contract management:** All functions that are outsourced to external service providers will be contracted and these contracts need to be managed. Service providers need to be paid timeously as well as monitored in order to ensure that they are meeting their contractual obligations.
- **Fare management:** Is the sale of tickets and the collection of fares from the motorists. This function also ensures that motorists have paid the correct fare for the duration they have used the facility. The fare structure must be low enough to ensure that motorist use the facility and at the same time be sufficient to ensure cost recovery of all capital outlay and operational expenditure. The fare management system must allow for all forms of payment to be possible.
- **Financial management:** Managing the various financial elements of the system including revenues (fare revenue, any grants or subsidy contributions from national or provincial government, municipal contribution, other system revenue) and costs (operating and capital costs).
- **Intelligent Parking Systems (IPS):** This function relates to the monitoring of the parking system to ensure services are operating optimally. Information of the average duration motorists park, what time of the day the parking bay is full. The origin of the vehicles etc will be available and can be used in the optimum management of the facility. This function requires a comprehensive information technology framework that connects parking activity to a central server. The information from the parking bay is obtained through a device that will be installed in the parking bay which provided the necessary management data.

The primary responsibility of the IPS system is to monitor whether or not a specific parking bay is occupied, and divert this information to the motorist who are connected to the server via a cellphone application.

The system should automatically generate reports that can provide strategic management information.

- **Safety and security co-ordination:** ensures the safety of the motorist using the parking facility. This function includes the co-ordination of the SAPS and other private security service providers.

4.2.2 Capacity Requirements

It is estimated that the Municipality would need to employ between 35 and 40 people to run the parking facilities. Main job categories include service managers, parking attendants, facility manager, bus drivers, maintenance staff, ticket sellers/cashiers, security personnel, inspectors, cleaners, financial staff, infrastructure specialists, administrative staff and IT staff (primarily to maintain the Intelligent Parking Systems and the Fare Management Systems).

The Municipality currently has 1,174 budgeted posts (of which only 1,054 are filled). The Transport, Roads and Stormwater division has 100 staff across three divisions:

- The Roads and Stormwater division has 86 staff, mostly road workers
- Traffic Engineering division has 14 staff
- Transport Planning and Public Transport division has a single approved position, which has recently been filled.

Establishing and running the proposed parking service, will therefore, increase the Stellenbosch Municipal Transport, Roads and Stormwater staffing structure by between 30% and 40% (based on filled posts).

The Municipality does not have the capacity to increase its staff complement by the extent required in the short term. It may, in the long term, be able to develop the capacity by recruiting from the existing industry and instituting training programmes to develop the required skills over time. However this would also require an increase in the overall management capacity of the Municipality – not just for the Engineering Services Department, but also other Departments, since there would be additional burdens placed on Departments such as Financial Services, Community Safety, Corporate Services and the Municipal Manager's Office.

4.3 Extent that re-organisation could be utilised

Section 78(1)(a)(iii) states that a municipality “must first assess the extent to which the re-organisation of its administration and the development of the human resource capacity within that administration as provided for in sections 51 and 68, respectively, could be utilised to provide a service through an internal mechanism mentioned in section 76(a)”

Section 51(g)(i) states that “a municipality must within its administrative and financial capacity establish and organise its administration in a manner that would enable the municipality to perform its functions through operationally effective and appropriate administrative units and mechanisms, including departments and other functional or business units.”

Section 68(1) states that “a municipality must develop its human resource capacity to a level that enables it to perform its functions and exercise its powers in an economical, effective, efficient and accountable way...”

The analysis under section 4.2 above indicates the extent of the organisational resources required to run a parking service. It is clear that, in the near term, Stellenbosch Municipality does not have the capacity to take on these functions through a re-organisation of its existing staff and structures. The Directors of Departments that may potentially be responsible for such a service, Engineering Services and Community Safety, have also both indicated that they do not have the capacity to initiate such a service.

4.4 Likely impact on development, job creation and employment patterns in the municipality

The initiation of the parking service will create at least 40 jobs within the Municipality during the operation phase and up to 300 new jobs during the construction phase of the project.

The overall impact of a parking service is expected to have significant benefits for the broader development, as discussed in the cost benefit analysis above, by facilitating continued economic growth and job creation through the establishment of an efficient transport system.

4.5 Views of organized labour

On 20 April 2018 a letter was sent to the following unions:

- Independent Municipal and Allied Trade Union (IMATU)
- South African Municipal Workers Union (SAMWU)

The Unions have not yet had the opportunity to respond. However it is unlikely that their views will alter the current findings of this report, although their views will be important should a S78 (3) report be required.

Copies of the correspondence are contained in Appendix A.

4.6 Trends in the sustainable provision of municipal services

Section 78(1)(b) states that a municipality “may take into account any developing trends in the sustainable provision of municipal services generally.”

The provision of services by the municipality must be provided in a sustainable manner, where the costs is not going to grow faster than the benefit the service or facility is bringing. Our experience from the public transport sector where public transport systems have been rolled out through external mechanisms in Cape Town, Johannesburg and Tshwane is that the income has not realised as anticipated, resulting in the public transport service sustainability being questioned.

We need to learn from the experience of the above Cities and make the necessary adjustments to the income stream to ensure that at a low case scenario, the parking system will still operate in a sustainable manner.

With regards to the specific focus of this assessment, Cape Town, Johannesburg, George, Pretoria, Polokwane and eThekweni have all considered external options for the provision of services. The typical approach has been to allow bus operations to be run by the private sector (usually a company or companies representing consortia of existing bus and minibus taxi owners and operators). The contracts governing the bus operations are usually managed by the Municipality via a transport department. The relevant department is also expected to manage contracts governing fare management, infrastructure design and development, inspection and monitoring(intelligent parking systems) and marketing and communications rather than providing these services internally.

5. Conclusions

5.1 Aspects Reviewed

The above report has provided an overview of the extent of the parking service as identified in Chapter 1 of this report, considered the process that the Municipality must follow in terms of section 78(1) of the MSA, and then reviewed each issue listed by section 78(1). These include the costs and benefits of providing the service, the Municipality's capacity to provide the service, and international and local trends with respect to transport service provision.

5.2 Conclusions

The conclusions reached from interviewing key municipal officials and considering each of the aspects required by s78 (1) are that the Municipality does not currently have the financial resources or organisational capacity to internally provide a public transport service. The major factors counting against it are the increased budget required to cover the establishment and recurring costs of the service, the significant increase in staffing that would be required and a national shift in the approach to sustainable transport.

Irrespective of the mechanism selected to deliver a parking service (internal vs. external), the Municipality should consider pursuing an alternative approach to parking service in and around the Stellenbosch and Franshoek CBD, based on the experience of other cities and towns. The experience of Boulder in the USA can be beneficial as it has become world renowned for its sustainable transport system, that strike a good balance between non-motorised transport modes and the private vehicle.