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NOTICE OF MUNICIPAL PLANNING

TRIBUNAL MEETING

OF STELLENBOSCH MUNICIPALITY

FRIDAY, 2021-06-18 FROM 10:00-15:00

VOLUME 2

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THE STELLENBOSCH MUNICIPALITY			
PLANNING REPORT: LAND USE AND LAND DEVELOPMENT APPLICATION: **REVISED APPLICATION FOR REZONING FROM AGRICULTURE & RURAL ZONE TO SUBDIVISIONAL AREA OVERLAY ZONE, SUBDIVISION INTO 8 PORTIONS AND CONSENT TO PERMIT AN INDUSTRIAL AND BUSINESS DEVELOPMENT: PORTION 2 OF FARM 744, PAARL.**			
Application Reference number	File Ref: Farm 744/2, Paarl Division (LU/11252)	Revised Application Date	2020/05/14

PART A: APPLICANT DETAILS			
First name(s) & Surname	Anton Lotz and André Roux		
Company name	Anton Lotz Town & Regional Planning and A Roux Town Planning in association		
SACPLAN registration number	PR. Pln A/1138/1999 & PR. Pln A/2141/2015		
Registered owner(s)	Safamco Enterprises (Pty) Ltd	Is the applicant properly authorised to submit the application	Yes

PART B: PROPERTY DETAILS			
Property description	Remainder Portion 2 of Farm 744	Town/ City	Paarl District
Physical address	Merchant Street, Klapmuts		
Extent (m² /ha)	21,1299 ha	Current zoning	Agriculture & Rural Zone
Existing Development and Current land use	Mostly vacant, with isolated industrial and residential buildings on the southern portion of the property		
Any unauthorised land use/building work	None		
Title Deed Nr.	T24204/1971		

PART C: APPLICATION DETAILS	
Applications(s)	***Initial land use application that was before the MPT in March 2021 and referred back to the applicant to address various concern raised by the MPT.*** Application is made i.t.o. Sections 15(2)(a), 15(2)(d) and 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-law (2015) for: • To rezone the Remainder of Portion 2 of Farm 744, Paarl, from Agriculture & Rural Zone to Subdivisional Area to allow for the following uses to develop 90 500m² of Industrial and Business floor area as a Basket of Rights: o 3 x portions zoned Industrial Zone. (±18.66ha); o 2 x portions zoned Public Roads & Parking Zone. (±2.34ha); o 1 x portion zoned Private Open Space Zone. (±964m²); o 1 x portion zoned Utility Services Zone. (±500m²) • The subdivision of Remainder Portion 2 of Farm 744, Paarl into seven portions: o Portion 1 (±4.45ha) zoned Industrial Zone; o Portion 2 (±13.1389ha) zoned Industrial Zone; o Portion 3 (±1.0774ha) zoned Industrial Zone; o Portion 4 (±5180m²) zoned Public Roads & Parking Zone o Portion 5 (±1,8256ha) zoned Public Roads & Parking Zone; o Portion 6 (±964m2) zoned Private Open Space Zone; o Portion 7 (±500m²) zoned Utility Services Zone. • Consent Use to allow Business Premises on Portions 1 and 2 of the proposed development. ***The application was referred back to the applicant by the MPT for the following reasons:*** • *to address the integration that this property should facilitate between the existing Klapmuts town and the proposed development, and* • *to submit a supporting detailed precinct plan to spatially illustrate how these concerns will be addressed.*

	Revised Land Use Application has been amended as follows to address the concerns raised by the MPT in March 2021 and thus the application under consideration is as follows: Application is made i.t.o. Sections 15(2)(a), 15(2)(d) and 15(2)(o) of the Stellenbosch Municipality Land Use Planning By-law (2015) for: • To rezone the Remainder of Portion 2 of Farm 744, Paarl, from Agriculture & Rural Zone to Subdivisional Area to allow for the following uses to develop 90 500m² of Industrial and Business floor area as a Basket of Rights: o 3 x erven zoned Industrial Zone (±17.87ha); o 2 x erven zoned Public Roads & Parking Zone (±2.34ha); o 1 x erf zoned Private Open Space Zone (±0.1ha); o 1 x erf zoned Utility Service Zone (±0.05ha) o ***1 x erf zoned Transport Facilities Zone (±0.7664ha);*** As indicated on Plan No: 18096-002, Dated: 2021-05-13, Drawn By: Anton Lotz Town & Regional Planning. • The subdivision of Remainder Portion 2 of Farm 744, Paarl into eight portions: o Portion 1 (±4.4312ha) zoned Industrial Zone; o Portion 2 (±12.3729ha) zoned Industrial Zone; o Portion 3 (±1.0774ha) zoned Industrial Zone; o Portion 4 (±5180m²) zoned Public Roads & Parking Zone o Portion 5 (±1,8256ha) zoned Public Roads & Parking Zone; o Portion 6 (±964m²) zoned Private Open Space Zone; o Portion 7 (±500m²) zoned Utility Services Zone. o ***Portion 8 (±7664m²) zoned Transport Zone*** • Consent Use to allow Business Premises on Portions 1 and 2 of the proposed development.
Purpose of Application	To facilitate a light-industrial development precinct, which will comprise: Manufacturing facilities, a Data centre, Business and Distribution centres, with a total floor area of 90 500m².

Pre-consultation	A number of pre-application meetings and discussions took place between the applicant and the department.

PART D: APPLICATION BACKGROUND

1. Location of the Property

Klapmuts is strategically located within the Greater Cape Metropolitan Region as it is located on the N1 transport corridor – which carries 93% of metropolitan bound freight for economic activity and residence within the metropolitan region. To date, the settlement is characterized by residential use and limited commercial and work-related activity.

The subject property is located to the west of Klapmuts, abutting the existing residential area on the western edge of Klapmuts town. The property is bounded by land uses that include residential, agricultural and the railway line which forms the northern boundary of the property (see **ANNEXURE A** for locality plan).

2. The prevailing development context of the subject / neighbouring area

The land to the west of the property (Portion 5 of Farm 742) consists of farmland currently utilised for vineyards, fruit cultivation and livestock grazing. Portion 5 of Farm 742 which adjoins the subject property to the west, already has development rights to develop 1577 Residential Units together with associated services and facilities, as approved in 2011. An application is currently in process to amend the approval granted for Portion 5 of Farm 742 which has taken the proposal under discussion into consideration to facilitate a holistic development to ensure an integrated development proposal.

The subject property is bounded by the railway line on its northern side. The portion of land that is located on the Northern Side of the railway line, is owned by the Municipality and is vacant and zoned for Utility Services Zone (Municipal related uses). The Klapmuts Village development which is located to the east of the subject property consists mostly of low-income and informal housing developments.

3. Historic use and development of the property, incl. existing and illegal uses

The subject property is predominantly vacant, with the only structures on the site being the current owner's isolated industrial and residential buildings which are located on the southern boundary of the property and these structures are to be retained and formalised. The remainder of the subject

property consists of disturbed natural vegetation. The property has also been mined for sand in the past and as a result much of the property's topsoil has been removed.

4. Overview of application

In 2011 the Stellenbosch Municipality granted rezoning and subdivision approval for the Klapmuts Hills development, which is located on Portion 5 of Farm 742, Paarl and situated to the west of the subject property. The approval granted consisted of a Development Framework, the rezoning and subdivision of the property with a number of departures to permit urban development within an approved Basket of Rights which would facilitate the development of 1 577 residential units together with associated services and facilities. Due to a number of factors, these rights have not yet been taken up by the owners.

With the acquisition of the subject property by the owners (Safamco Enterprises (Pty) Ltd) of Portion 5 of Farm 742, which is located on the western boundary of the subject property a new vision was developed for the enlarged land area, with a focus on developing a dynamic, innovative and sustainable hub which includes the subject property and application under consideration. The revised vision and concept for the whole development (Ptn 2 of Farm 744 and Ptn 5 of Farm 742) resulted in the rebranding of the development as *Stellenbosch Bridge*.

Application submitted in March 2021which was referred back to the applicant.

The application under consideration / land unit will form an integrated part of "Stellenbosch Bridge" development. The subject property will thus form the light-industrial precinct along the eastern edge of the larger "*Stellenbosch Bridge" Development*. The vision for this industrial precinct is to function as a manufacturing, logistics and data centre area for the "*Innovation Precinct*" component of the "*Stellenbosch Bridge Development*".

Revised application under consideration.

This application served before the Stellenbosch Municipal Planning Tribunal in March this year but was referred back to the applicant to address concerns raised by the members of the MPT regarded the fact that the initial proposal did not facilitate any form of integration with the existing residential area of Klapmuts located to the east of the subject property as a result of the proposed layout of the industrial area.

PART E: APPLICATION OVERVIEW AND MOTIVATION

1. The Stellenbosch Bridge Development Concept

"Stellenbosch Bridge" is a visionary development of which the majority of the development is to be located on Portion 5 of Farm 742 and the subject property (Farm 744 Ptn 2) will form the Light Industrial precinct. The "Stellenbosch Bridge" development will be focussed around an innovation precinct that will attract local and international innovation stakeholders to locate in a mixed-use, live, work, play and innovate environment. It will attract investment by connecting and building bridges between people, science, business, innovation and entrepreneurship in one place.

It is the intention of the owners to develop this project over the next 15 to 20 years and to integrate it with the larger Stellenbosch spatial vision for the Klapmuts area with the participation of all stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the Western Cape Government.

To facilitate an efficient roll-out of the development, a "Package of Plans" process is also being proposed to facilitate an element of flexibility in the implementation of the approved land use rights that are to be granted. The applicant will submit a series of phased applications for the development *with a bulk register that will be updated as the development rights are taken up.* The development proposal submitted for the subject property has been aligned will the development framework of the "Stellenbosch Bridge" to ensure a cohesive development.

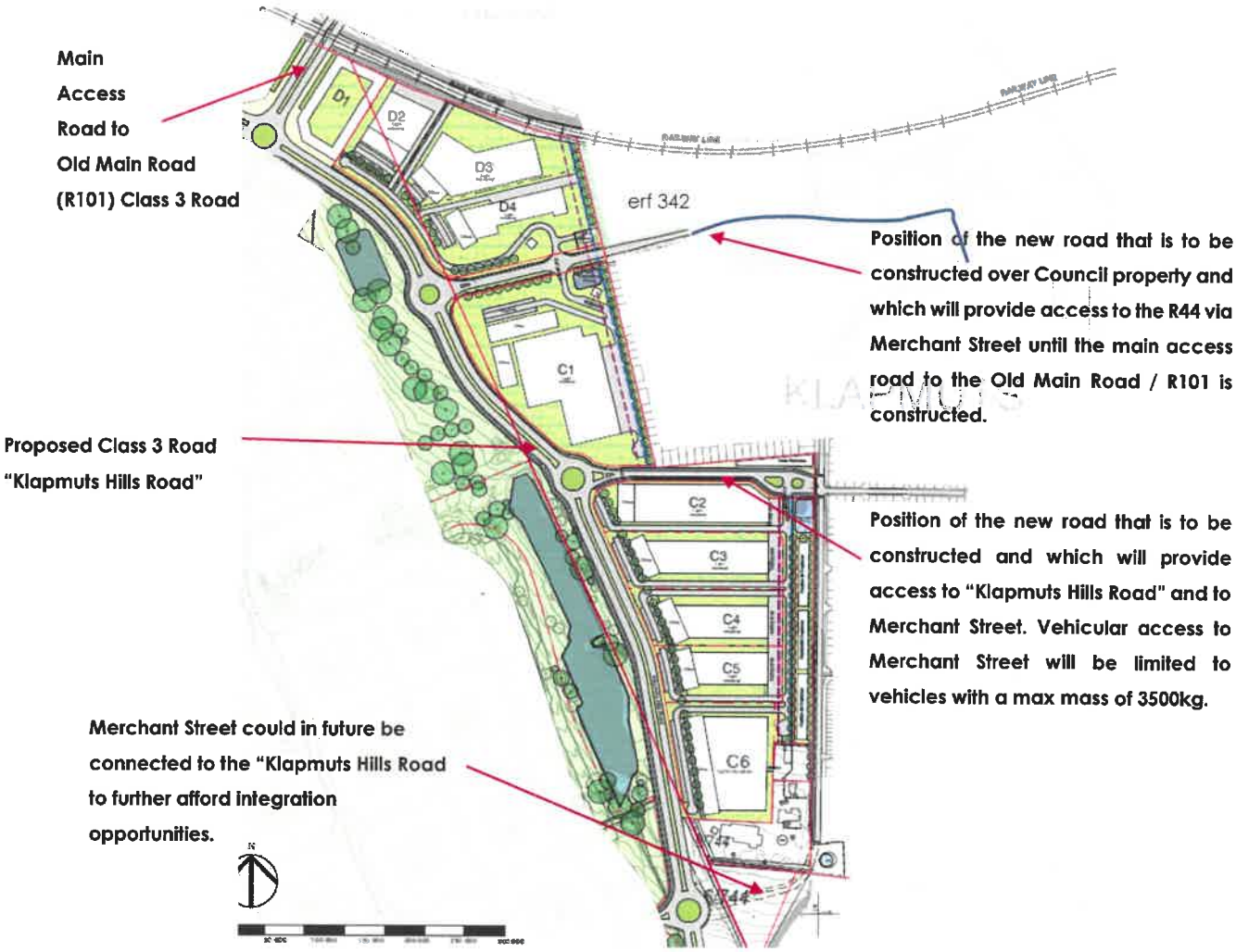
The "Innovation Precinct" will be the heart of the Stellenbosch Bridge development where entrepreneurs, researchers, academics and corporates will connect to develop and incubate new products and services for fast-growing and promising industry clusters. The precinct will have a mixed-land-use character providing for all aspects of a live-work-play environment designed around significant public spaces. The subject property with the application under consideration will form the Light Industry precincts of the "Stellenbosch Bridge" development.

2. Overview of the revised proposal

The subject property is to be developed as an industrial park offering opportunities for business, manufacturing, distribution/warehousing and data centres, all linked to the innovation precinct. The range and nature of uses will be managed through the basket of rights that is being applied for.

A bulk register for the total development is to be created, which must be updated and submitted with each development proposal submitted for approval.

The initial light industrial development proposed was only to be linked to Merchant Street via a new road which is to be constructed over Council owned land (Erf 342). Access to the Old Main Road (R101) would be provided at a later stage once the new Class 3 road which is located on the western side of the subject property has been developed and which also runs over Portion 5 of Farm 742 via the rail underpass and Council property to the Old Main Road (R101). Approval has been granted for the development of Farm 742 Ptn 5 and thus the alignment and design of the class 3 road is in process and once approved, construction will commence.



The revised proposal has introduced an additional access road to be constructed between "Klapmuts Hills Road" and Merchant Street. Access to Merchant Street will be limited to vehicles with maximum mass of 3500Kg and thus vehicles that exceed 3500kg mass will be required to use "Klapmuts Hills Road" to access the industrial properties from the Old Main Road (R101). The revised proposal also makes provision for Merchant Street to be extended to provide a third link road between the Klapmuts Hills Road"/ Class 3 Road and the existing residential areas of Klapmuts.

The revised application under consideration will facilitate the subdivision of the subject property (Portion 2 of Farm 744) into 8 portions, allowing the following land uses to be created:

- **3 x erven zoned Industrial Zone** allowing for industrial development; (Note that one of these portions will accommodate the existing industrial and residential buildings, which will be retained by private ownership, and will not form part of the Stellenbosch Bridge development);
- **2 x erven zoned Public Roads & Parking Zone** allowing for public road reserves;
- **1 x erf zoned Private Open Space Zone** allowing for a small portion of land to be consolidated with a portion of Portion 5 of Farm 742 which will form part of the Stellenbosch Bridge private open space system;
- **1 x erf zoned Utility Service Zone** allowing for an electrical substation.
- ***1 x erf zoned Transport Facilities Zone.***

A Basket of Rights which include a ***total of 90 500m² floor area*** is also being applied for.

The amendments made to the layout plan, facilitate integration with the existing residential area as the proposal has provided additional access roads that facilitate better integration with the existing residential area located to the east of the subject property. The introduction of the residential component into the layout along the Merchant Street boundary of the subject property has provide a transitional zone that will link the existing residential area with the proposed industrial area. The residential component will consist of Duplex residential units with the intension of providing existing residents of Klapmuts with the opportunity to purchase an affordable residential unit.

The amendments to the layout also include an NMT component with a small taxi drop off area which is to be located on the corner of Merchant Street and the new "Link Road" which joins Merchant Street to "Klapmuts Hills Road". The location of the small business component is to provide commercial services to the employees and residents of the proposed industrial and adjoining residential area. The proposal makes provision for NMT / pedestrian movement to and from the industrial area and the local business activities in this area will be limited to small spaza shop and/or trading stalls serving passing pedestrians.

Setback lines proposed for the industrial area are more restrictive than the 3m permitted by the Industrial Zone as a 20m minimum setback line is proposed that will ensure adequate separation between the introduced residential units and the industrial buildings. The incorporation of parking / loading areas on the eastern side of the proposed industrial buildings will further ensure that the industrial buildings are setback from the proposed residential units.

The office components of the light industrial properties face on to "Klapmuts Hills Road" and the boundary wall located on eastern boundary of the industrial components adjoining the residential component will be planted with trees to soften any impact on the surrounding residential area and the residential component that is proposed. The planted trees will ensure that the loading areas are concealed from most of the surrounding public streets and adjoining residential areas. Access to the industrial components loading bays / areas is such that the heavy vehicles will only have access to the high order roads.

As the amendments made to the proposal include a residential component and the proposed zoning of Industrial does not make provision for a residential component, the applicant has proposed that the area identified for the residential development with the taxi drop off component are to be zoned to Transport Facility Zone, with the understanding that once approval of the application under consideration has been obtained a land use application will be submitted to facilitate the development of this component of land for residential and as a Taxi drop off area. A condition of approval will be imposed should the application be supported by the Tribunal, to ensure that this aspect of the proposal is implemented as motivated by the applicant. The proposal as submitted is seen to be a sensible way in creating a desirable interface between the existing residential area and the new development, whilst providing affordable housing opportunities for the residents of Klapmuts.

The layout of each component of the development will be determined when the relevant Precinct Plan, subdivision plans are submitted. The following principles will be used to guide the design of the layout:

- The internal road layout will be subject to input from the project traffic engineer and will include consultation with the Municipal engineering department. This will include the overall internal road layout, road reserve widths and cross-section designs, intersections and site accesses.
- Sufficient provision will be made for on-site parking and loading facilities, in accordance with the Municipality's regulations and standards with input from an appointed traffic engineer.
- The design must ensure minimal impact on the adjacent residential area.

- Landscaped buffer areas will be created between the residential area and the industrial properties.
- The industrial properties will also obtain access from the new internal access roads only.
- Landscaping and open spaces will comprise a minimum of 10% of each site to ensure a high-quality and inviting urban space.
- Development will be restricted to light-industrial activities only, such as clean manufacturing, commercial warehouses, distribution centres, show rooms and data centres. No noxious restricted industrial activity will be permitted.
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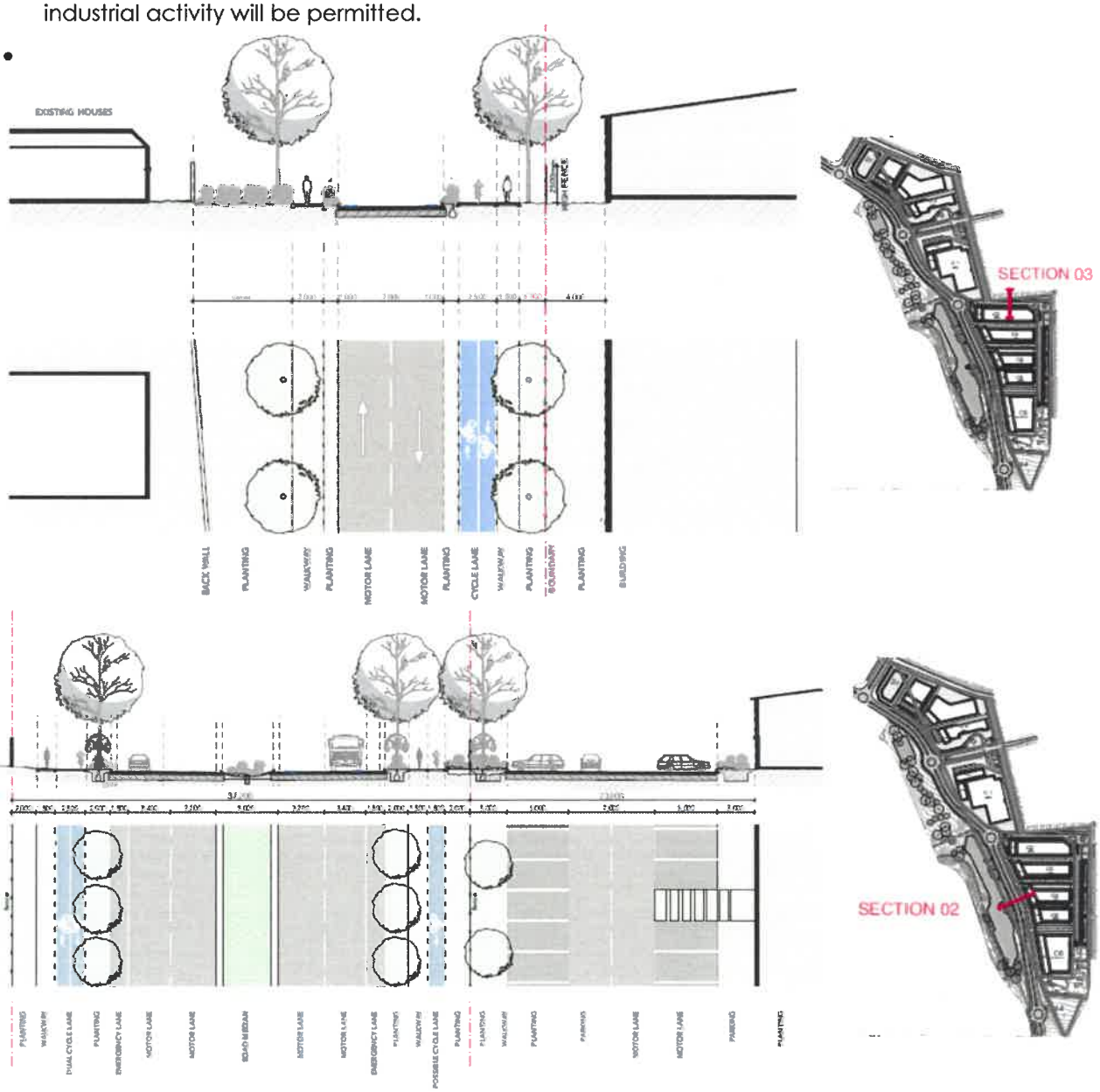


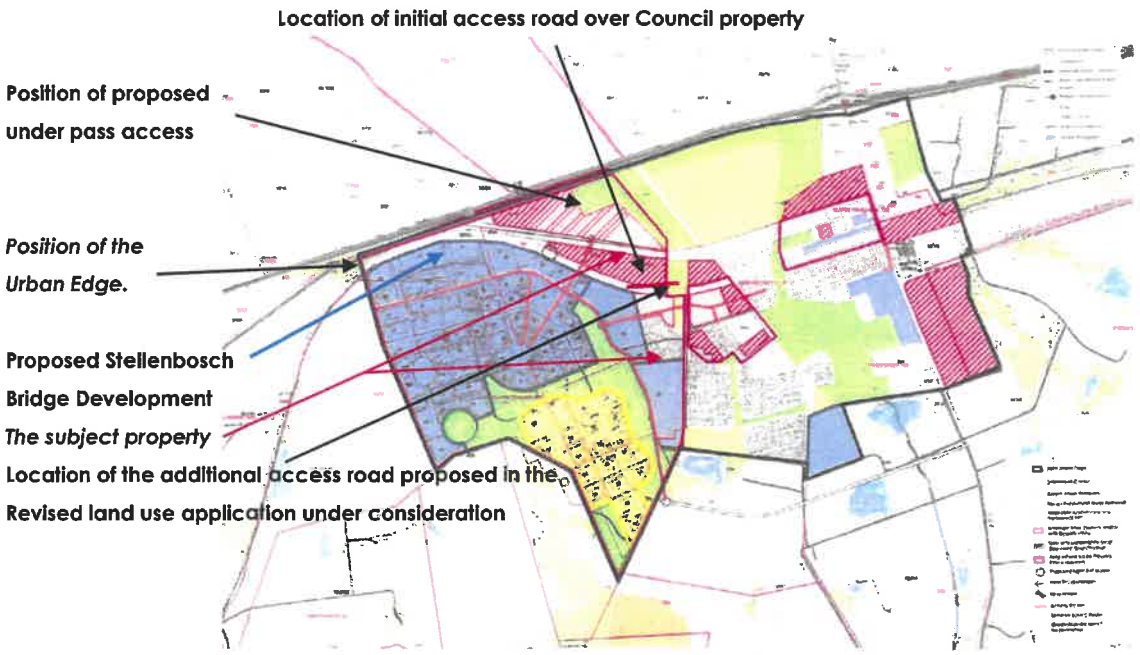
TYPICAL STREET SECTIONS (Refer to Annexure U)

3. Applicant's Motivation

- Compliance with LUPA and SPLUMA: The proposed development supports the land use development principles contained in LUPA and SPLUMA and it ensures improved utilisation of land with economic opportunities to be created to the benefit of the local community. The proposed development will be spatially compact and resource-frugal. It will not contribute towards urban sprawl and optimizes the use of existing resources and infrastructure.

- Consistency with PSDF: The proposal is aligned with the policies of the PSDF as it involves the development of a property within the urban edge, being a natural extension of the existing urban area, and will add significantly to job creation and business development opportunities across a variety of sectors.

- Consistency with MSDF: The Stellenbosch Municipality have been consulted extensively during the development and design process of the Stellenbosch Bridge development concept and plans. The draft indicative development plan for the Stellenbosch Bridge development, which includes the subject property, therefore incorporates the proposals of the MSDF. The MSDF also includes the Innovation Precinct Concept Plan as reference for the future development of Klapmuts. This proposed development responds positively to the principles and proposals of the 2019 MSDF as it contributes to higher-density infill development within the approved Klapmuts urban edge and the development of higher-density mixed-use development, with an emphasis on integrating employment opportunities.



Extract of the Klapmuts Urban Edge.

- Agricultural Viability: Previous soil studies undertaken for the property confirmed that the site has a low agricultural rating. This is largely as a result of surface and subsurface layers of the soils that have been removed in previous sand and gravel mining activities. The unviability of the site for agricultural activity is further confirmed by the site's inclusion within the Klapmuts urban edge for at least the last 18 years.

- Socio-Economic Impact: The existing Klapmuts community has a high-unemployment rate and the socio-economic status of most families is low. The local community is in dire need of economic investment and accessible employment opportunities. It is foreseen that the proposed light-industrial development will be a catalyst for local economic growth and will create employment opportunities for semi-skilled and unskilled labour. It will also create opportunities for residents to be upskilled. Temporary economic and employment opportunities will also be created for the local community during the construction phase of the development.

- Compatibility with Surrounding Uses: The property presents a good location for light-industrial development as proposed. Developments of this nature are not always conducive within the centre of urban areas, due to the industrial nature of the land uses and the large portions of land required for these facilities. No restricted, noxious uses will be permitted, thereby ensuring a limited impact on the adjacent residential area.

- Impact on Safety, Health and Wellbeing of the Surrounding Community: The development will be designed to be sensitive to the existing surrounding community with wide landscaped buffer/parking areas to be provided between the proposed industrial development and surrounding residential communities. The proposed land uses will be light-industrial only. No form of industrial activity will be permitted that may be potentially hazardous to the surrounding community or environment will be permitted.

- Heritage Impact: The subject property is not located within a heritage conservation area and does not contain any heritage elements.

- Impact on the Biophysical Environment: Due to disturbance by human activity in the past, the property does not contain sensitive environmental elements and it is thus not anticipated that the proposed development will result in any negative environment impact. A ROD has been issued in this respect.

- Traffic Impact: A Traffic Impact Statement (TIS) has been prepared by the project traffic engineer and the study supports the proposed development, subject to key upgrades to the existing external road network.

- Impact on Municipal Engineering Services: A Civil Engineering Report has also been prepared by the project civil engineer and the report supports the proposed development, subject to certain bulk service upgrades.

PART F: PUBLIC PARTICIPATION, COMMENTS AND RESPONSE

1. Process followed

The applicant has, in terms of the Section 45 of the Stellenbosch Municipality Land Use Planning By-Law, 2015, notified the external departments, advertised in the local newspaper and notified (serving notices) all interested and affected parties, as well as community organisations and a notice was also placed on the property. The advertising period was from 20 August 2020 to 21 September 2020.

Methods of Advertising				Date Published	Closing date for objections / comments
Press (Eikestad News)	**Y**	N	N/A	20 August 2020	21 September 2020
Notices	**Y**	N	N/A	20 August 2020	21 September 2020
Ward councillor	**Y**	N	N/A	20 August 2020	21 September 2020
On-site display	**Y**	N	N/A	20 August 2020	21 September 2020
Community organisations	**Y**	N	N/A	20 August 2020	21 September 2020
State departments	**Y**	N	N/A	20 August 2020	21 October 2020

2. Public & stakeholder Inputs

No comments to the application were received from interested parties and property owners or community organisations.

A comment was received form the local ward councillor (Emily Fredericks), stating "*as long as the development supports the SPLUMA and LUPA principles and are in line with the Klapmuts and Stellenbosch SDF Spatial Development Framework I don't have any objections*" (See **ANNEXURE E**).

3. Government related inputs received

a) The **Department of Environmental Affairs and Development Planning** confirm that, although the proposed rezoning, subdivision and consent use does not trigger any listed activities in terms of the NEMA EIA Regulations, and an Environmental Authorisation has been granted by the **Department of Environmental Affairs and Development Planning**. (see **ANNEXURE H**).

b) The **Department of Agriculture (Elsenburg)** supports the proposal under consideration. (see **ANNEXURE I**).

c) **Heritage Western Cape**, in response to a submission of a Notice of Intent to Develop, confirmed support for the proposal (see **Annexure J**).

a) The **Road Network Management Directorate of the Department of Transport and Public Works** supported the proposal, subject to conditions (see **ANNEXURE K**):

4. Comments from internal service departments

b) The **Manager: Spatial Planning** supports the proposal (see **ANNXURE L**).

c) The **Manager: Health Department (Winelands District)** supports the proposal, subject to the following conditions (see **ANNEXURE O**):

i) No Pollution such as water, air, dust or noise pollution may occur on any part of the premises/development during the operational phase of the proposed development.
ii) Proper preventative measures must be put in place beforehand.
iii) The proposed light industrial development adjacent to the residential area must not cause any health nuisances to residents.
iv) The quality of the potable water on the premises/development must at all times comply with the minimum bacteriological and chemical standards for potable water as determined by SANS code 241.
v) Refuse collection and storage at the proposed development must be done in a way that will not cause a health nuisance.

vi) The sewerage system from the proposed development must be connected to an approved sewerage system according to Stellenbosch Municipality's specifications, condition and approval.

vii) Sewage disposal on the premises/development must at all times take place in a nuisance-free manner and shall be the owner's responsibility.

viii) The Department reserves the right to set further requirements during the operational phase.

d) The **Manager: Development (Infrastructure Services)** supported the proposal, subject to conditions (see **ANNEXURE N**):

PART G: ASSESSMENT OF LAND USE AND LAND DEVELOPMENT APPLICATION

1. Legislative and Policy Context of land use and land development application

The legislative/ principles/ policies/ guidelines/ plans which are considered as relevant to the subject land use and land development application, are as follows:

- Greater Cape Metro Regional Spatial Implementation Framework (GCMRSIF), 2019
- Provincial Spatial Development Framework, 2014
- Stellenbosch Municipality Land Use Planning Bylaw, 2015
- Stellenbosch Municipality Zoning Scheme Bylaw, 2019
- Stellenbosch Municipality Spatial Development Framework (2019)
- National Environmental Management Act, 1998 (Act No 1991 of 1998)
- National Heritage Resources Act, 1999 (No 25 of 1999)
- Subdivisional of Agricultural Land (Act 70 of 1970)

It is noted that the subject land use and land development application was submitted and processed in accordance with and in compliance with the prescripts of the said Bylaw.

2. Assessment of grounds of the land use and land development application

As noted above the proposed development forms part of the "Stellenbosch Bridge" which consists of the "Innovation Precinct and Residential Component", which was approved by the Stellenbosch Municipal Planning Tribunal in March this year and is located to the west of the subject property on Portion 5 of Farm 742.

The industrial development proposed on the subject property forms the industrial precinct of this development and will accommodate Light Industrial, Business, Manufacturing, Distribution/Warehousing and a Data Centre component of the Bridge Development. The application under consideration on Portion 2 of Farm 744 will facilitate the rezoning and subdivision of the subject property to create 8 portions, allowing the following land uses to be created:

- **3 x erven zoned Industrial Zone** allowing for industrial development; (Note that one of these portions will accommodate the existing industrial and residential buildings, which will be retained by private ownership, and will not form part of the Stellenbosch Bridge development);
- **2 x erven zoned Public Roads & Parking Zone** allowing for public road reserves;
- **1 x erf zoned Private Open Space Zone (±0.1ha)** allowing for a small portion of land to be consolidated with a portion of Portion 5 of Farm 742 which will form part of the Stellenbosch Bridge private open space system;
- **1 x erf zoned Utility Service Zone (±0.05ha)** allowing for an electrical substation.
- ***1 x erf zoned Transport Facilities Zone (±0.7664ha)***

The approval of the application is to facilitate an industrial precinct with a basket of land use rights for which separate subdivision applications for each precinct will be submitted, to facilitate the development of each precinct as part of the "Package of Plans" process. The applications submitted for each precinct will comprise, a subdivision plan, site development plan, landscaping plan and design guidelines. The application under consideration therefore does not contain a detailed internal layout plan for each portion created as this aspect will be addressed at a later stage. The approval granted will only establish the principle for the development and thereby provide a basket of land use rights which can be implemented.

As noted above, initially access to the development was only via Merchant Street over Council land and the internal class 3 road over the subject property and the adjoining property, Ptn 5 of Farm 742, which is to be developed to create the main access route taking access from the Old Main Road / R101 via a rail underpass and over Council land. The revised layout has also included an additional access road which will also link the proposed industrial development to Merchant Street. The revised proposal thus makes provision for better integration with its surroundings as now access to the proposed industrial area can be taken from a number of routes.

The proposed access roads to the development via Merchant Street will ensure that the residence residing in the residential areas of Klapmuts have easy access to the industrial area which will ensure that the proposed industrial area is integrated with the surrounding area. The proposed access routes with extensive NMT facilities will further ensure that residents of the adjoining residential area working in the proposed industrial area have easy access to work opportunities and facilitate integration.

2.1 SPLUMA Principles

2.1.1 Spatial Justice

The proposed development will ensure the optimal utilization of land which will create economic opportunities for the local community. The proposal under discussion will contribute significantly to employment creation which is within walking distance of the surrounding community.

2.1.2 Spatial Sustainability

The proposed development will be spatially compact and will not contribute towards urban sprawl as it will form a natural extension of the Klapmuts village, being situated directly adjacent to the existing urban area. The subject property is located well within the urban edge and the proposal will also not result in the loss of viable agricultural land or environmentally sensitive areas as the property has been mined in the past resulting in most of the topsoil being lost. The subject property is thus not conducive for agricultural activities and also does not contain any sensitive environmental biodiversity.

2.1.3 Efficiency

The proposed development optimizes the use of existing resources and infrastructure within the approved urban edge. The development will be integrated within the existing urban area and will contribute towards a mix of land uses.

2.1.4 Spatial Resilience

The revised proposal has facilitated a development that will enhance the use of the subject property and will ensure divers employment opportunities for the surrounding community.

2.1.5 Good Administration

The application has been taken through the public participation process by the Stellenbosch Municipality and the Applicant and all relevant departments were requested to provide comment. The proposal has been forwarded to the Municipal Planning Tribunal for a decision in terms of the system of Delegations for Land Use Development within the WC24 Municipality and was referred back to include an element of inclusivity which was lacking in the initial application.

2.2 Greater Cape Metro Regional Spatial Implementation Framework

The Greater Cape Metro Regional Spatial Implementation Framework has taken note of Klapmuts area as it has identified it as Regional node and has provided the following comment:

To take development proposals forward, the following needs to be considered:

- Existing infrastructure (i.e. N1, R101, R44 and the Paarl-Bellville railway line and station) which dictate the location of certain transport, modal change or break-of-bulk land uses.
- Existing development footprint of Klapmuts as well as potential development land parcels including land north of the N1 and the N1-R101-railway line corridor east of Klapmuts, the latter extending up to Paarl South Industrial and including a proposed green logistics hub.
- Potential for an in-land port and agri-processing, packaging and dispatch platform.
- Avoiding daily movement across the N1 between place of work and residence or social facilities.

Achieving an appropriate metro gateway.

- Addressing the Klapmuts development issue clearly requires a collaborative sub-regional growth management spatial framework between the Stellenbosch and Drakenstein Municipalities in order to avoid unsustainable "twin developments".

2.3 Western Cape Provincial Spatial Development Framework

The Western Cape Provincial Spatial Development Framework does not discuss regional nodes, but the framework sets out high-level transitions required to achieve the optimised development. The PSDF strategically aligns with these transitional agendas to ensure the optimization and alignment of Provincial planning policies with infrastructure delivery.

2.4 Stellenbosch Municipal Spatial Development Framework.

The subject property falls within the Klapmuts urban edge and is identified for urban development. The MSDF recognises the "innovation precinct" and "smart city" development in Klapmuts of which the subject property will form the Industrial precinct.

The proposed development supports the MSDF's proposals for Klapmuts as it does not impede on nature areas surrounding Klapmuts, prioritises higher-density infill development within the urban edge and unlocks the development potential of Klapmuts with an emphasis on job creation.

2.5 Applicable planning policies and guidelines

The focus of the **Integrated Development Plan (IDP)** is on economic growth and development of the area with a specific emphasis on poor communities. The focus on using infrastructure, industrial development and commercial development as an enabler for job creation further purports the need for integration of infrastructure and superstructure development. Klapmuts and Stellenbosch Town are considered strategic priorities for the Municipality. The positioning of Stellenbosch Bridge as an economic development hub is key, the basis for which is grounded in the IDP as a strategic implementation document of the Stellenbosch Municipality.

2.6 Service infrastructure capacity and sustainability

2.6.1 A Services Report was conducted by WEC Consult. The following external bulk services upgrades are required to accommodate the proposed development:

- The property is not located immediately adjacent to existing bulk water reticulation infrastructure. For the development to connect to the bulk reticulation network two new bulk connector / link pipelines are required. The Municipality have made provision in their budget to have these upgrades designed and constructed. It is expected that these bulk network upgrades will be completed prior to the completion of the infrastructure for the proposed development.

- The property is not located immediately adjacent to existing bulk sewer reticulation infrastructure. For the development to connect to the bulk reticulation network, additional bulk connector / link pipelines are required. No other upgrades to the bulk sewer distribution network are required. Sufficient sewer treatment capacity is available in the Klapmuts WWTW to accommodate the development.

- Runoff provisions are made for cases of minor storms (1:2 year) by providing adequate stormwater infrastructure in the road reserve. Excess runoff during major storms will be conveyed along existing drainage paths and residential streets. Overland flow escape routes will be provided at all low points and other strategic locations. A detailed stormwater management plan will be compiled and submitted to the local authority, where more detailed information regarding the flood calculations and position and size of detention ponds will be provided.

- There will be no upgrades required to the downstream water courses and piped stormwater systems. Stormwater detention ponds will be designed and constructed to ensure that the post development stormwater runoff does not increase from the pre-development scenario. No provision needs to be made for any future connection. Design of bulk stormwater infrastructure will make allowance for all future phases of this development falling within the same catchment area.

2.6.2 An electrical services report was prepared by Dihlase Consulting Engineers (Pty) Ltd (see **ANNEXURE R**). A supply of 6200kVA is recommended for the proposed development. The nearest point of connection to the existing external electrical network is the Eskom Klapmuts 132kv substation. This connection will be realized via an 11kV underground cable system fed from the Klapmuts substation to an 11kV switching station located on the Stellenbosch Bridge development site.

2.6.3 The municipal Civil Engineering Department confirmed that the proposed development is supported, subject to the required external bulk services infrastructure and conditions as contained in their memorandum dated 21 December 2020. (see **ANNEXURE P**)

2.7 Any investigations carried out in terms of other laws that are relevant to the consideration of the subject application

2.7.1 A **Traffic Impact Study** was done **by ICE Group** (see **ANNEXURE O**). The findings and recommendations can be summarised as follows:

- The proposed development has the potential to generate 461 peak hour trips (369 in, 92 out during the AM park hour and vice versa during the PM peak hour);

- To accommodate the background traffic, the following upgrades are considered necessary:

  - Dualling of the R44 north of its intersection with the Klapmuts-Simondium Road;

  - The provision of dedicated left-turn lanes on the northern and southern R44-approachesat the R44 / Stellengate Boulevard intersection;

- To accommodate the proposed development traffic, the following upgrades are considered necessary:

  - The provision of a dedicated left-turn lane along the Stellengate Boulevard approach at the R44 / Stellengate Boulevard intersection;
  - A roundabout at the Groenfontein Road / Merchant Street intersection.

- The detail on the internal layouts, on-site accommodation of vehicles, refuse removal, parking, etc will be addressed with the submission of site development plans;

- A taxi rank exists less than 300m from the site. It is suggested that the provision of public transport embayment's be considered along the access road and / or at the accesses to the potential pockets within the proposed development;

From a traffic engineering perspective, the application is supported, as confirmed by the comments received from the Directorate Infrastructure Services.

2.7.2 A **Visual Impact Assessment** was done **by Megan Anderson Landscape Architect** (see **ANNEXURE P**). The scenic resources of the area can be described as natural, rural and per-urban and are rated high. The Zone of Visual Influence of the proposed development is Local, limited to the Upper Klapmuts River valley area, between 500m's to 2km. Receptors are highly, moderately and minimally sensitive. The highly sensitive receptors are the surrounding homesteads, nature reserves, secondary scenic drives (R301, R44 and N1) and residents of Bennetsville. The visual absorption capacity of the proposed development is moderate, i.e. there will be partial screening by topography and vegetation. The visual intrusion will be moderate to low.

The following mitigation measures are recommended:

- Enforcing the proposed Architectural and Landscape Principles, Codes, Guidelines and Concepts provided by OL Architects and Square One Landscape Architects.
- Comprehensive planning regarding lighting in order to minimise light pollution on the cultural and rural landscape.
- Construction mitigation measures to be included in the EMP.
- Production of an Operational Management Plan to guide and control the Stellenbosch Bridge Light Industrial Development including buildings, infrastructure and landscaping in future.

The Visual Impact Assessment concludes that if the above recommendations and mitigation measures are enforced, that the proposed development will have a moderate visual impact and, in time, with the maturing of trees that should be planted, the development will not detract negatively from the highly rated Cape Winelands scene.

2.7.3 A **Botanical Site Sensitivity Assessment** was done by Capensis). The study area has been identified as a site of Very High sensitivity under the terrestrial biodiversity category by the Screening Tool. This sensitivity rating has been assessed through a desktop study and a field visit. The findings of the site visit are that the site is in a very poor condition from a botanical perspective and contains no important species or habitats. The ecological functioning has been significantly altered through disturbances related to historical agriculture, sand/laterite mining, dumping, too frequent fires and invasive species. The study area is surrounded by Klapmuts on the east and farmland on the west. It does not connect to any intact remnants of indigenous vegetation.

2.7.4 A **Heritage Notice of Intent to Develop** was prepared by Cindy Postlethwayt. It is confirmed that the proposed development has no heritage impact as the property is situated within the urban edge, has been fallow for some time, has no historical associations of significance, has no structures of heritage significance, adjoins a low income settlement and land approved for residential development.

2.7.5 A **Socio-Economic Assessment** was undertaken by Multipurpose Business Solutions (see **Annexure Q**). According to the report, a number of benefits are associated with the proposed Stellenbosch Bridge development:

- Job creation: The proposed development on the subject property could sustain 1 352 to 1 487 jobs per annum in the Stellenbosch Municipal Area over 4 years during the construction period. An estimated 1 900 job opportunities could arise from the development of and provision for 90 500 m^2 of Gross lettable Area. These figures do not include additional employment (indirect and induced employment) created by the needs of the operating components and outsourcing opportunities.

- Economic income: A combined initial investment of R1 486 million (R1 188 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R4 101 million in the Western Cape Province over the construction period. In addition, approximately R 614 million will accrue to the Stellenbosch Municipal area.

- Revenue accruing to public authorities: The total cumulative rates over the first 10 years from the commencement of construction of the industrial components is estimated at R128.9 million.

New business development: The light industrial activity and related uses would include a mix of warehousing, light manufacturing and other related business and service activities. These activities will require a range of goods and services that could be provided by existing and or new businesses operating in the Stellenbosch and/or Drakenstein Municipalities. As the area to be used for business purposes is a consent use application, the area to be used for business purposes would have to be subservient to the industrial component and to ensure this a restriction will be imposed on the amount of floor area that may be developed solely for business purposes.

Many of the negative socio-economic impacts that were identified in the study could be mitigated by introducing the measures proposed by various specialists. Monitoring of specifically

the social impact and assessing the outcomes over time would further enhance the social and economic fabric within the development and the surrounding Klapmuts communities. The recommended enhancement and mitigation measures contained in other specialist reports and those required to support mitigation of several impacts identified and assessed in the Socio-economic Impact Assessment Report, must be implemented.

2.8 The applicable provisions of the zoning scheme

The property is currently zoned Agricultural & Rural Zone but has not been used for agricultural purposes for some time. It is proposed to rezone the property to Subdivisional Area Overlay Zone, to allow for the subdivision of the property into 8 portions, which include portions zoned Industrial Zone. The industrial zones portions will permit the proposed industrial activities, while the application for consent will facilitate additional business land uses to be possible. The revised application has also proposed to includ a residential component (Portion 8) with a taxi drop off area and an additional access road to facilitate integration with the adjoining residential area.

As the zoning applied for (Industrial) does not make provision for residential land uses the applicant has applied to rezone Portion 8 to Transport Facility Zone with the understanding that, on approval of this application an application to rezone Portion 8 to the appropriate zone will be submitted to facilitate the residential and other land uses required to facilitate the integration of the proposed industrial development with the existing adjoining residential neighborhood.

The development parameters applicable to the development in terms of the number of parking bays required; setback lines, bulk, storeys and height of buildings will be determined by the Stellenbosch Municipality Zoning Scheme By-law 2019, or as indicated on the site development plan that is approved for each precinct, notwithstanding the fact that 90 500m² of bulk which has been approved, as no indication has been provide by the application as to how the total bulk applied for (90 500m²) will be distributed across the newly created portion;

2.9 General Desirability in accordance with possible impacts on neighbouring properties and surrounding areas

2.9.1 Compatibility with surrounding area

The proposed development is deemed compatible with the surrounding area and the proposal submitted is considered to be a good location for light-industrial development, as the subject property is located on the outskirts of the existing Klapmuts village. As a result, will have a minimal negative impact on the existing community, while still having a positive impact as employment

opportunities will be create for the local community due to accessibility of the development to the surrounding community.

The industrial development will *not accommodate heavy industrial or noxious industrial activities*, thereby ensuring that the impact on the adjacent residential area is minimal. To further ensure minimal impact on the adjoining residential area the proposed industrial buildings will be setback from the residential boundary line as this area is to be used for parking purposes which will be landscaped.

2.9.2 Integration with existing Klapmuts Community

The socio-economic and physical integration of the Stellenbosch Bridge project as a whole with the Klapmuts town have been central to the planning of the project and will guide decision-making throughout the construction and operations of the mixed-use innovation development in order to maximize the socio-economic benefits of the project.

The development is contiguous to the town, within the Klapmuts urban edge, thereby enabling its physical integration. The primary movement system consists of a number of public roads of which a new eastern link via Merchant Street will facilitate direct movement integration with the existing residential area. The new link road has been designed as a lower order public link road to limit external traffic use which will negatively impact the section of town that it runs through.

As the primary access route for the development on the subject property is via the Old Main Road / R101, a condition will be imposed to ensure that the applicant obtained approval for the underpass as part of the initial approval granted for the "Bridge Development", to ensure that the traffic generated by the approval of the application under consideration (Rezoning for Light Industrial purposes) has a limited impact on the residents along Merchant Street over the long term.

The revised proposal has made provision for improved integration with the existing community as now an additional access road is proposed which facilitates better access to the proposed light industrial facilities from Merchant Street. The additional access road will provide easy access to the industrial area from the surrounding residential area which was previously not possible. The revised proposal has also made provision for NMT facilities and a drop off zone for taxis and has also included a residential and small commercial component to aid in integrating the development with the adjoining existing residential area.

Access for heavy vehicles to the industrial area adjoining the additional access road has also been provided and conditions of approval can be imposed to ensure that these vehicles make use of the Class 3 road and do not move through the existing residential area of Klapmuts to link up with the R44.

The link roads introduced in the revised proposal will ensure that the proposed industrial area is integrated with the existing residential area of Klapmuts, as now residents working in the newly created industrial area and adjoining residential area of the "The Stellenbosch Bridge" will be able to access work opportunities that will be created over the short and long term.

As the proposed zoning of Industrial does not make provision for residential land uses the area proposed for the residential component with the drop off area for taxis is to be zoned for Transport Facility Zone with the understanding that a land use application will be submitted to facilitate the development of this component for residential with the drop off area for taxi's. (Refer to Plan No J1307 attached as **Appendix N**) To further ensure that the industrial uses have little impact on the existing and proposed residential components the boundary line between the Industrial area and the residential area is to be screened with planted trees / landscaping. The industrial buildings will also be setback from the residential boundary line to further ensure limited impact of the industrial component on the surrounding residential area.

To ensure that the main access route via the underpass is constructed, a restriction on the amount of floor area that may be developed on the subject property will be imposed as a condition of approval. The restriction on bulk / floor area that may be developed will aid in reducing the volume of traffic that will make use of the secondary access routes via Merchant Street to the R44.

To ensure implementation of the bulk allocated, a bulk register will form part of the SDP and subdivision process to facilitate the development rights of each precinct. This condition will be imposed primarily due to the fact that the proposed Light Industrial development is located on a separate property to "The Stellenbosch Bridge" development and to limit the impact of the additional traffic that will be generated as the land use rights are established. The condition will also ensure that the primary access road is constructed as this will limit the development potential of the industrial precinct.

A social investment strategy will also be implemented, and these programs will facilitate the socio-economic upliftment of the Klapmuts community through employment creation, economic income, skills development and training, small business development, capacity building and local business development opportunities created by the project, thereby ensuring the long-term socio-economic integration of the town and the development.

Socio-economic integration for the project will also entail social investment into the local community by the developer beyond the potential benefits intrinsically linked to the project itself. These social investment initiatives will be intended to ensure that downstream benefits from the project accrue to the local population, to fund community social projects via the sales and operations of the project and to ensure a local procurement initiative for employment and SMMEs.

During construction a targeted socio-economic benefit achieved through an Implementation Plan for the project which will include a Procurement Strategy. KPAs will be set out to ensure the successful implementation thereof.

2.9.3 Socio-economic Impact

The Klapmuts community has a high unemployment rate and the socio-economic status of most families are low. The local community is in need of economic investment and job opportunities. The proposed development is expected to generate many employment opportunities for semi-skilled and unskilled labour and could result in a significant positive impact on local economic growth.

2.9.4 Visual impact

The surrounding environment is classified as rural and semi-urban and the subject property is highly visible in the surrounding area, especially from the surrounding homesteads, nature reserves, secondary scenic drives and the existing residential area. Despite this, the visual impact of the proposed development is considered acceptable as it will result in a natural extension of the existing urban area within the urban edge.

A number of mitigation measures will also be implemented as recommended by the Visual Impact Assessment, which include appropriate architectural design and landscaping (controlled by approved architectural guidelines) and appropriate lighting.

2.9.5 Noise pollution

As mentioned, the proposed development is planned to accommodate manufacturing, distribution/warehousing and data centres linked to the innovation precinct. These land uses are generally classified as "light-industrial" activities. Due to the location of the property on the periphery of Klapmuts, and the light-industrial nature of the activities (as opposed to heavier industrial land uses), noise pollution will not impact negatively on the surrounding environment. Conditions will be imposed to mitigate against noise impact, as suggested by the Winelands District Health Department.

3. Assessment of comments on application

Except for the letter of support received from the local ward councillor, no other comments / objections were received from interested and affected property owners or interested groups.

PART H: SUMMARY OF KEY FINDINGS OF ASSESSMENT

After having independently considered and weighted all the relevant information the evaluation of the subject land use and land development application concludes that:

1. The locality of the property on the periphery of the existing Klapmuts village is considered suitable for the proposed light-industrial development, as it will minimise impact on the adjoining Residential area, while still being accessible to the local community;

2. The proposed development will contribute to local economic growth and job creation as a high number of temporary and permanent employment opportunities are expected to be created during construction and operation;

3. The property is not considered to be viable agricultural land due to past and current activities that have taken place on the property;

4. Sufficient service capacity is available to accommodate the proposed development once the relevant upgrades required have been made to the existing infrastructure;

5. The proposal is consistent with the provisions and proposals of the MSDF as the property is situated within the urban edge and delineated by the SDF for urban development. The MSDF recognises the "innovation precinct" and "smart city" development in Klapmuts South, of which the subject property forms part of;

6. A restriction on the amount of bulk / Floor Area of industrial and business buildings that may be developed by the developer on the subject property will be imposed as a condition of approval to ensure that the primary access road which will connect the industrial area to the Old Main Road / R101 is constructed prior to the 90 500m² of industrial and business buildings being constructed and to limit the impact of the additional traffic that will be generated as the land use rights are established on the subject property;

7. A restriction will also be placed on the amount of Bulk / Area of building that may be developed solely for business purposes to ensure that the majority of the buildings are restricted to industrial purposes as applied for;

8. The development parameters applicable in terms of the Stellenbosch Municipality By-Law 2019 in relation to parking provisions, setback lines, bulk, number of storeys and total height of buildings are applicable to the newly created properties, notwithstanding the fact that 90 500m² of bulk has been approved;

9. The proposal makes provision for sensible integration between the existing residential area and the proposed development as improved access has been provided with a higher density residential component which will form a transitional zone between the existing residential area and proposed industrial area.

PART I: RECOMMENDATION

1. That the following applications in terms of the Stellenbosch Municipal Land Use Planning By-Law, promulgated by notice number 354/2015, dated 20 October 2015, on Portion 2 of Farm 744, Paarl, namely:

1.1 **The rezoning** of Remainder Portion 2 of Farm 744, Paarl, from Agriculture and Rural Zone to Subdivisional Area in terms of Section 15(2)(a) of the said Bylaw to allow for the following uses to develop 90 500m² of Industrial and Business floor area as a Basket of Rights:

3 x erven zoned Industrial Zone (±17.87ha);
2 x erven zoned Public Roads & Parking Zone (±2.34ha);
1 x erf zoned Private Open Space Zone (±0.1ha);
1 x erf zoned Utility Service Zone (±0.05ha);
1 x erf zoned Transport Facilities Zone (±0.77ha)

As indicated on Plan No: 18096-002, Dated: 2021-05-13, Drawn By: AR & RC, for Anton Lotz Town & Regional Planning, attached as **Annexure B.**

1.2 **The subdivision** of Remainder Portion 2 of Farm 744, Paarl, into 8 portions in terms of Section 15(2)(d) of the said Bylaw in accordance with the subdivision plan with plan number 18096-002, Rev E, dated 2020-07-29, to allow for the following:

- Portion 1 (±4.4312ha) zoned Industrial Zone;
- Portion 2 (±12.3729ha) zoned Industrial Zone;
- Portion 3 (±1.0774ha) zoned Industrial Zone;
- Portion 4 (±5180m²) zoned Public Roads & Parking Zone
- Portion 5 (±1,8256ha) zoned Public Roads & Parking Zone;
- Portion 6 (±964m²) zoned Private Open Space Zone;
- Portion 7 (±500m2) zoned Utility Services Zone.
- ***Portion 8 (±7664m²) zoned Transport Zone.***

As indicated on Plan No: 18096-002, Dated: 2021-05-13, Drawn By: AR & RC, for Anton Lotz Town & Regional Planning, attached as **Annexure B.**

1.3 **Consent** to allow **Business Premises** on **Portions 1** and **2** of the proposed development in terms of Section 15(2)(o) of the said Bylaw.

BE APPROVED in terms of Section 60 of the said Bylaw and **BE SUBJECT** to conditions in terms of Section 66 of the said Bylaw:

2. **CONDITIONS** of approval:

2.1. The approval applies only to the application in question and shall not be construed as authority to depart from any other legal prescriptions or requirements from Council.

2.2. An electronic copy (shp,dwg,dxf) of the Subdivision Plan which was preliminary approved by the SG be submitted to the Directorate: Planning and Economic Development.
That the following information must be indicated on this plan:
Newly allocated Erf Numbers,
Co-ordinates,
Survey Dimensions,
Street names (If approved by Council).

2.3. A phasing plan be submitted for approval by the Directorate: Planning and Economic Development indicating the sequence and timeframe of development.

2.4. A detailed subdivision plan clearly indicating the street names and street numbering be submitted for approval in terms of the Stellenbosch Municipal Planning Bylaw for each portion / precinct that is created by this approval.

2.5. A site development plan, landscaping plan, and architectural guidelines be submitted for each property that is created by this approval with the subdivision plan for each precinct.

2.6. An updated bulk register be submitted with each site development plan to the satisfaction of the Directorate: Infrastructure Services.

2.7. All public places and public streets that vested in the Local Authority be clearly defined and indicated and be provided with erf numbers on the approved SG plans and be transferred to the Local Authority upon transfer of the first unit/erf in the subdivision. All cost for the surveying and transfer of public land will be for the account of the applicant/developer.

2.8. An Operational Management Plan, inclusive of architectural guidelines and a detailed Landscaping Plan be submitted for approval by the Directorate: Planning and Economic Development for the total development that implements the recommendations made in the Visual Impact Assessment done by Megan Anderson Landscape Architect attached as **Annexure P** of this report before transfer of any property (excluding Portion 3).

2.9. Architectural and aesthetic guidelines be submitted for approval by the Directorate: Planning and Economic Development with the subdivision application for each precinct and that these guidelines comply with the Operational Management Plan required above.

2.10. The Stellenbosch Municipality Zoning Scheme By-law 2019 or Approved Site Development Plan parameters in terms of parking setbacks, bulk and height of buildings are applicable to the newly created properties, notwithstanding the fact that 90 500m² of bulk has been approved.

2.11. The industrial buildings on **Portion 2** located along the common boundary with the proposed residential area to be located on **Portion 8** are to be setback a minimum of 20m from the common boundary at any point.

2.12. The industrial activities in these buildings will not accommodate heavy industrial or noxious industrial activities but be light industrial activities which will not have a negative impact on the adjoining residential areas and must be defined as a use that may not include manufacturing that may cause any health nuisances to residents, noise disturbance, air pollution or is dependent on heavy vehicles or freight transfer.

2.13. A Service agreement be signed with the Directorate: Infrastructure Service before any property is transferred or any construction takes place and that this agreement contains the relevant conditions of approval as imposed by the Directorate: Infrastructure Service in their memo dated 21 December 2020 and that these conditions be complied with, as attached as **Annexure N**;

2.14. Development charges are payable towards bulk civil services as imposed by the Directorate: Infrastructure Services in their memo dated 21 December 2020 as attached as **Annexure N**;

2.15. No subdivided portion of land may be transferred prior to the construction of the Class 3 access road which will provide direct access for this development to the Old Main Road / R101via Portion 5 of Farm 742 and the railway line underpass, except for **Portion 3**;

2.16. No subdivided portion of land may be transferred prior to the construction of the link road across Erf 342 that provide one of the access routes for the development via Merchant Street and the R44, except for **Portion 3**;

2.17. No civil construction vehicles or equipment that have a weight that exceeds 3.5 tons may make use of Merchant Street to access the subject property during the installation of the civil services, without the approval of the Directorate: Infrastructure Services;

2.18. Only 15% of the bulk / floor area may be developed for exclusively Business purposes on Portions 1 and 2 of the proposed development. (Plan No: 18096-002, Dated: 2021-05-13, Drawn By: Anton Lotz Town & Regional Planning.)

2.19. The bulk approved for the residential component will form part of the 90 500m² of floor area approved for this property;

2.20. The internal road layout for the various subdivisions within the precincts must make provision for NMT routes / public transport parking embayment's and pedestrian routes which link the proposed industrial area with the adjoining residential area and public roads. These facilities must be to the satisfaction of the Directorate: Infrastructure Services;

2.21. No subdivided portion of land may be transferred prior to the submission of the land use application to rezone and subdivide unregistered **Portion 8** of this application to facilitate the development of this portion of the development for Duplexes / Town Houses with a minimum density of 25 units / ha with a Taxi Drop Off Area;

2.22. The conditions of approval as imposed by the Road Network Management Directorate of the Department of Transport and Public Works be complied with, as attached as **Annexure K** of this report;

2.23. A socio-economic development implementation plan be submitted for approval by the Municipality before any construction takes place in order to implement the recommendations made in the Socio-economic Impact Assessment done by Multi-purpose Business Solutions.

3. The **REASONS** for the above decisions are as follows:

3.1 The development will contribute significantly to employment creation in the Klapmuts area.

3.2 The property is situated within the urban edge and identified by the MSDF for urban development.

3.3 The property is well located for a light-industrial development, being on the periphery of the existing Klapmuts settlement.

3.4 The Industrial activities will be limited to light industrial activities that have minimal negative impact on the surrounding area / no heavy industrial uses will be permitted.

3.5 The Industrial building will be located away from the property boundary that adjoins the new residential area by landscaped parking areas.

3.6 The proposal makes provision for sensible integration between the existing residential area and the proposed development as improved access has been provided with a higher density residential component which will form a transitional zone between the existing residential area and proposed industrial area.

3.7 A restriction will also be placed on the amount of Bulk / Area of building that may be developed solely for business purposes to ensure that the majority of the buildings are restricted to industrial purposes as applied for;

4. Matters on the application **TO BE NOTED:**

4.1 The conditions imposed by the DEPARTMENT OF ENVIRONMENT AFFAIRS AND DEVELOPMENT PLANNING in their letter dated (insert date) (Environmental Authorization), attached as **Annexure P.**

4.2 The conditions imposed by HERITAGE WESTERN CAPE in their letter dated (insert date) (Environmental Authorization), attached as **Annexure J.**

4.3 The conditions imposed by the HEALTH DEPARTMENT (WINELANDS DISTRICT) in their letter dated (insert date) (Environmental Authorization), attached as **Annexure O.**

PART J: ANNEXURES

ANNEXURE A:	LOCALITY PLAN
ANNEXURE B:	**REVISED** SUBDIVISION & ZONING PLAN
ANNEXURE C:	APPLICANT'S ***REVISED*** AND INITIAL MOTIVATION
ANNEXURE D:	COPY OF TITLE DEED / CONVEYANCER CERTIFICATE
ANNEXURE E:	PUBLIC PARTICIPATION PORTFOLIO OF EVIDENCE
ANNEXURE F:	DRAFT STELLENBOSCH BRIDGE DEVELOPMENT FRAMEWORK
ANNEXURE G:	DRAFT STELLENBOSCH BRIDGE MASTER PLAN
ANNEXURE H:	APPROVAL FROM THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING
ANNEXURE I:	COMMENT FROM THE DEPARTMENT OF AGRICULTURE (ESLENBURG)
ANNEXURE J:	COMMENT FROM HERITAGE WESTERN CAPE
ANNEXURE K:	COMMENT FROM THE DEPARTMENT OF TRANSPORT AND PUBLIC WORKS
ANNEXURE L:	COMMENT FROM MANAGER: SPATIAL PLANNING
ANNEXURE M:	COMMENT FROM MANAGER: HEALTH DEPARTMENT (WINELANDS DISTRICT)
ANNEXURE N:	COMMENT FROM MANAGER: DEVELOPMENT (INFRASTRUCTURE SERVICES)
ANNEXURE O:	TRAFFIC IMPACT STUDY
ANNEXURE P:	VISUAL IMPACT ASSESSMENT
ANNEXURE Q:	SOCIO-ECONOMIC IMPACT ASSESSMENT
ANNEXURE R:	DEVELOPMENT MANUAL
ANNEXURE S:	ADDITIONAL MOTIVATION AND PLANS PROVIDED BY THE APPLICANT FOR THE REVISED APPLICATION;
ANNEXURE T:	DRAFT SITE DEVELOPMENT PLAN ***(ADDITION INFORMATION)***
ANNEXURE U:	NMT NETWORK PLANS ***(ADDITION INFORMATION)***

PART K: COMPILATION OF PLANNING APPLICATION ASSESSMENT REPORT

APPLICATION FOR REZONING FROM AGRICULTURE & RURAL ZONE TO SUBDIVISIONAL AREA OVERLAY ZONE, SUBDIVISION INTO 7 PORTIONS AND CONSENT USE TO PERMIT AN INDUSTRIAL AND BUSINESS DEVELOPMENT: REMAINDER PORTION 2 OF FARM 744, PAARL.

Author of Planning Assessment Report:

Name: R P Fooy

Capacity: Senior Town Planner

SACPLAN Registration: —

Signature: RP Fooy

Date: 27/05/2021

PART L : REVIEW OF PLANNING APPLICATION ASSESSMENT REPORT

APPLICATION FOR REZONING FROM AGRICULTURE & RURAL ZONE TO SUBDIVISIONAL AREA OVERLAY ZONE, SUBDIVISION INTO 7 PORTIONS AND CONSENT TO PERMIT AN INDUSTRIAL AND BUSINESS DEVELOPMENT: PORTION 2 OF FARM 744, PAARL.

Review of Planning Assessment Report:

Name: _____

Capacity: _____

SACPLAN Registration: _____

Signature: _____

Date: _____

PART M: ADMINISTRATION OF PLANNING APPLICATION ASSESSMENT REPORT

APPLICATION FOR REZONING FROM AGRICULTURE & RURAL ZONE TO SUBDIVISIONAL AREA OVERLAY ZONE, SUBDIVISION INTO 7 PORTIONS AND CONSENT TO PERMIT AN INDUSTRIAL AND BUSINESS DEVELOPMENT: PORTION 2 OF FARM 744, PAARL.

Administrator to Stellenbosch Municipal Planning Tribunal:

It is hereby confirmed that proper notice was served of the Municipal Planning Tribunal meeting at which this land use and land development application will serve for consideration.

The land use and land development application will serve at the scheduled meeting of the Stellenbosch Municipal Planning Tribunal on:

Date: 18 June 2021

Name: Lenacia Kamineth

Capacity: Senior Administratie Officer

Signature: [signature]

Date: 28.05.2021

PART N: SUBMISSION OF PLANNING APPLICATION ASSESSMENT REPORT

APPLICATION FOR REZONING FROM AGRICULTURE & RURAL ZONE TO SUBDIVISIONAL AREA OVERLAY ZONE, SUBDIVISION INTO 7 PORTIONS AND CONSENT TO PERMIT AN INDUSTRIAL AND BUSINESS DEVELOPMENT: PORTION 2 OF FARM 744, PAARL.

Authorised Employee to assess and make a recommendation on a land use and land development application for consideration by the authorised decision maker:

As the duly authorised official in terms of Section 56 of the Stellenbosch Municipal Land Use Planning Bylaw (2015) to assess and make a recommendation on the above planning application, the subject planning report is hereby submitted for consideration to the duly authorised decision maker in accordance with the Categorisation Model for Land Use and Land Development Applications as approved by the Stellenbosch Municipality in accordance with Section 69(1) of the said Bylaw.

In terms of the Categorisation Model duly approved in terms of Section 69(1) of the said Bylaw vide Item 7.7.1 and dated 8 April 2020, the subject application is categorised as follows:

Category:

Decision Making Authority: SMPT

Rational: Rezoning of Subdivisional Area and subdivision of area greater than 50000m²

Name: Shaan Carstens

Capacity: Snr Man. Dev. Man.

SACPLAN Registration: A/1551

Signature:

Date: 27/5/2021

PART O: ADMINISTRATION OF PLANNING APPLICATION ASSESSMENT REPORT

APPLICATION FOR REZONING FROM AGRICULTURE & RURAL ZONE TO SUBDIVISIONAL AREA OVERLAY ZONE, SUBDIVISION INTO 7 PORTIONS AND CONSENT TO PERMIT AN INDUSTRIAL AND BUSINESS DEVELOPMENT: PORTION 2 OF FARM 744, PAARL.

Administrator to Stellenbosch Municipal Planning Tribunal:

It is hereby confirmed that proper notice was served of the Municipal Planning Tribunal meeting at which this land use and land development application will serve for consideration.

The land use and land development application will serve at the scheduled meeting of the Stellenbosch Municipal Planning Tribunal on:

Date: 18 JUNE 2021

Name: LENAZIA KAMINETH

Capacity: SENIOR ADMINISTRATIVE OFFICER

Signature: L. KAMINETH.

Date: 28.05.2021

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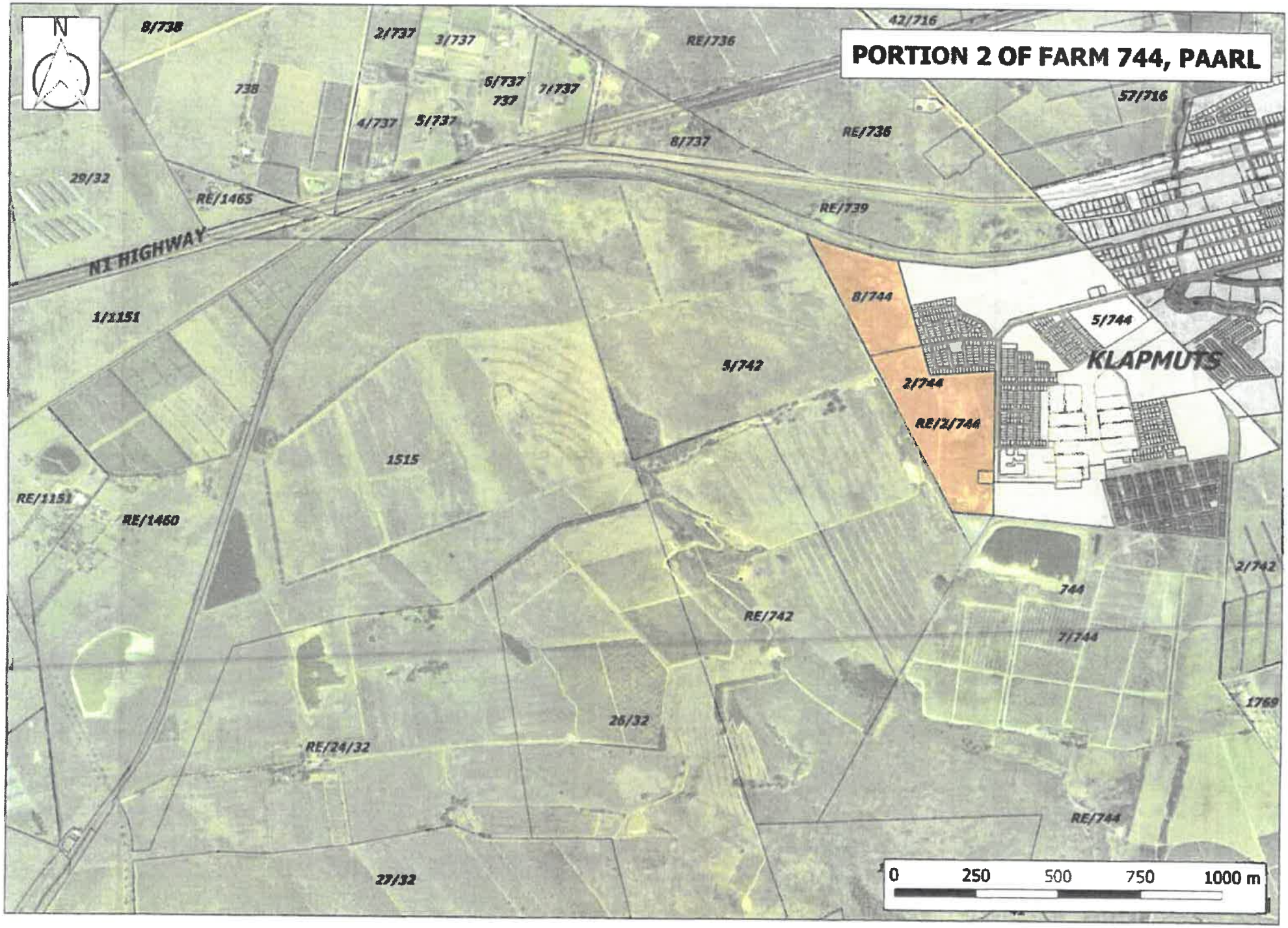
MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE A

LOCALITY PLAN


PORTION 2 OF FARM 744, PAARL
N
8/738
2/737
3/737
RE/736
42/716
738
6/737
737
7/737
57/716
4/737
5/737
8/737
RE/736
29/32
RE/1465
RE/739
N1 HIGHWAY
8/744
5/744
KLAPMUTS
1/1151
5/742
2/744
RE/2/744
1515
RE/1151
RE/1460
2/742
744
RE/742
7/744
1769
26/32
RE/24/32
RE/744
27/32
0
250
500
750
1000 m

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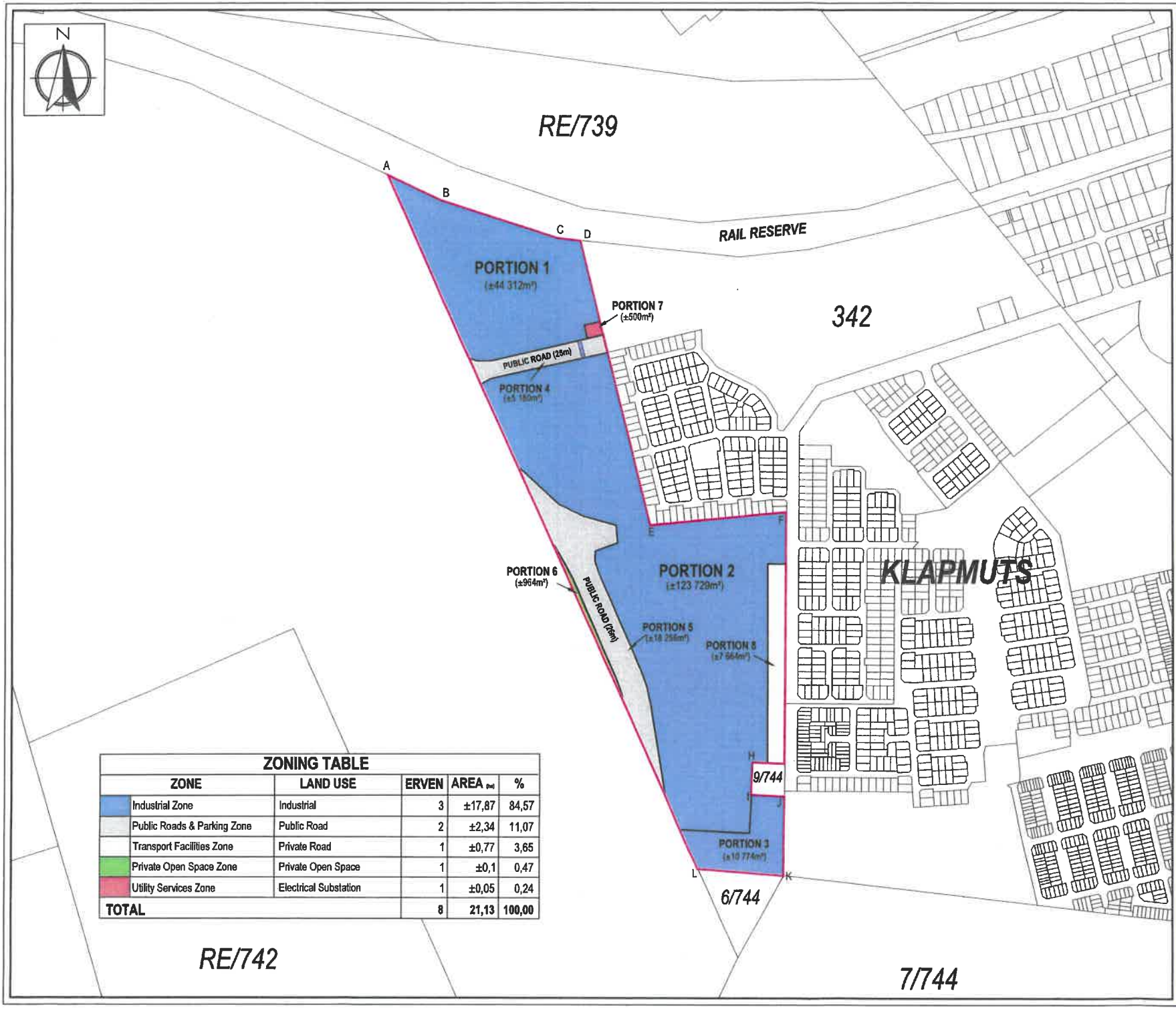
ANNEXURE B

REVISED SUBDIVISION & ZONING PLAN



ZONING TABLE				
ZONE	LAND USE	ERVEN	AREA (ha)	%
Industrial Zone	Industrial	3	±17,87	84,57
Public Roads & Parking Zone	Public Road	2	±2,34	11,07
Transport Facilities Zone	Private Road	1	±0,77	3,65
Private Open Space Zone	Private Open Space	1	±0,1	0,47
Utility Services Zone	Electrical Substation	1	±0,05	0,24
TOTAL		8	21,13	100,00

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BRIDGE | BHULORHO | BRUG

REVISION HISTORY:

Rev A: Proposed subdivision of Portion 2 of Farm 744, Paarl
Rev B: Add updated road reserves.
Rev C: Update public road layout.
Rev D: Update public road alignment.
Rev E: Add Portion 7 and change of Zoning
Rev F: Add Portion 8

NOTES:

- Figure ABCDEFGHIJKL represents Portion 2 of Farm 744, Paarl.
- All distances and areas are provisional and must be verified by cadastral survey.

Proposed 5m private services servitude.

TITLE:

PROPOSED SUBDIVISION & ZONING PLAN

43

SCALE:

1:5000 (A3)

PROPERTY DESCRIPTION:

PORTION 2 OF FARM 744, PAARL

PROJECT DETAILS:

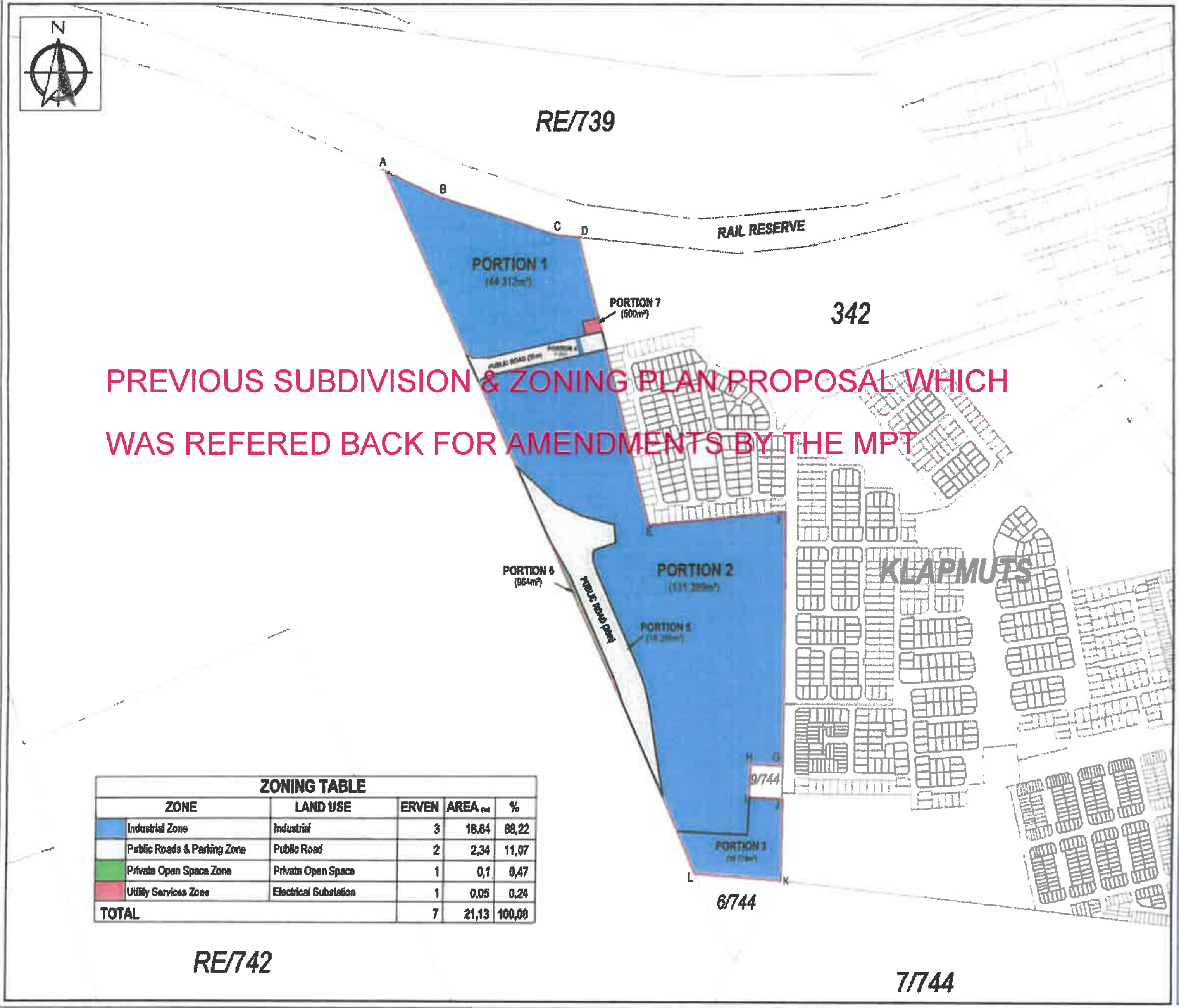
Project Name:	Stellenbosch Bridge
Project No:	18096
Client:	Stellenbosch Bridge (Pty) Ltd
Municipality:	Stellenbosch Municipality

PLAN DETAILS:

Plan No:	18096-002
Revision:	F
Date:	2021-05-13
Drawn by:	AR & RC
Checked by:	AL

AntonLotz
TOWN & REGIONAL PLANNING

AROUX
TOWN PLANNING



ZONING TABLE

ZONE	LAND USE	ERVEN	AREA (ha)	%
Industrial Zone	Industrial	3	18,64	88,22
Public Roads & Parking Zone	Public Road	2	2,34	11,07
Private Open Space Zone	Private Open Space	1	0,1	0,47
Utility Services Zone	Electrical Substation	1	0,05	0,24
TOTAL		7	21,13	100,00

STELLENBOSCH
BRIDGE I BHULORHO I BRUG

REVISION HISTORY:
Rev A: Proposed subdivision of Portion 2 of Farm 744, Paarl
Rev B: Add updated road reserves.
Rev C: Update public road layout.
Rev D: Update public road alignment.
Rev E: Add Portion 7 and change of Zoning

NOTES:
- Figure ABCDEFGHIJKL represents Portion 2 of Farm 744, Paarl.
- All distances and areas are provisional and must be verified by cadastral survey.

Proposed 5m private services servitude.

TITLE:
PROPOSED SUBDIVISION & ZONING PLAN

SCALE:
1:5000 (A3)

PROPERTY DESCRIPTION:
PORTION 2 OF FARM 744, PAARL

PROJECT DETAILS:
Project Name: Stellenbosch Bridge
Project No: 18096
Client: Stellenbosch Bridge (Pty) Ltd
Municipality: Stellenbosch Municipality

PLAN DETAILS:
Plan No: 18096-002
Revision: E
Date: 2020-07-29
Drawn by: AR & RC
Checked by: AL

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ANNEXURE C

APPLICANT'S REVISED AND INITIAL MOTIVATION

AntonLotz
TOWN & REGIONAL PLANNING

P O Box 51799 Waterfront 8002
Cellphone + 27 (0)83 487 7869
Email: alotz@iafrica.com

14 May 2021

Our Ref: 2015 908

PORTION 2 of FARM 744, PAARL: STELLENBOSCH BRIDGE, KLAPMUTS – INDUSTRIAL-RESIDENTIAL INTERFACE & INTEGRATION

In response to the decision of the MPT dated 19 March 2021, please find attached a revised Zoning and Subdivision Plan no 18096-002 Rev F together with a motivation for proposed amendments to address the concerns raised. We have also included a land use and movement network plan, an indicative development plan for the industrial precinct as well as cross-sections to address the matters of integration and the industrial-residential interface.

1. Amended Plan of Subdivision

The revised proposal is for subdivision into 8 portions to accommodate a portion of land adjacent to existing Merchant Street for which application will be made for a future residential development in order to improve the interface between the development and the existing residential areas. As per Zoning and Subdivision Plan no 18096-002 Rev F dated 2021-05-13:

- Subdivision into 8 portions to accommodate:
  - 3 x erven zoned Industrial Zone
  - 2 x erven zoned Public Roads & Parking Zone
  - 1 x erf zoned Transport Facilities Zone
  - 1 x erf zoned Private Open Space Zone
  - 1 x erf zoned Utility Service Zone

Following approval of this application a future application will be launched to rezone the Transport Facilities Zone to an appropriate zone to accommodate a social or affordable housing project as part of the Stellenbosch Bridge development which will be in line with the Municipality's housing policy currently being drafted.

In considering the input of MPT and finalising a revised development concept for this application the following arguments were taken into consideration.

2. Location of Space-extensive Land Uses

The design of the Stellenbosch Bridge project as a mixed-use precinct has focussed on the integration of a variety of land uses both vertically and horizontally to ensure a dynamic and sustainable precinct. Important to the functioning of the Innovation Precinct is the incorporation of clusters of industry that serve the innovation role-players and contribute to a balanced urban eco-system.

As illustrated by the perspective below, in considering the topography of the site, the urban design team identified the more level areas adjacent to the existing town (Farm 744/2) and the railway line to the north to be the best locations for the more space extensive uses of the development including the data centres and larger-scale manufacturing. They considered that by means of design management and landscaping they could manage the interface between the uses.

In addition, it was considered beneficial to locate the manufacturing uses near the labour force already present in Klapmuts, thereby enhancing ease of access and convenience. A technical college site was initially also considered for part of this site, but at the time of conception another site had been identified in Klapmuts for a secondary school, so it was decided to offer more light industrial sites to increase the job opportunities for the community. It was never the intent to use the industrial precinct as a buffer between the existing town and the Stellenbosch Bridge development.

3. Local Land Use and Movement Network

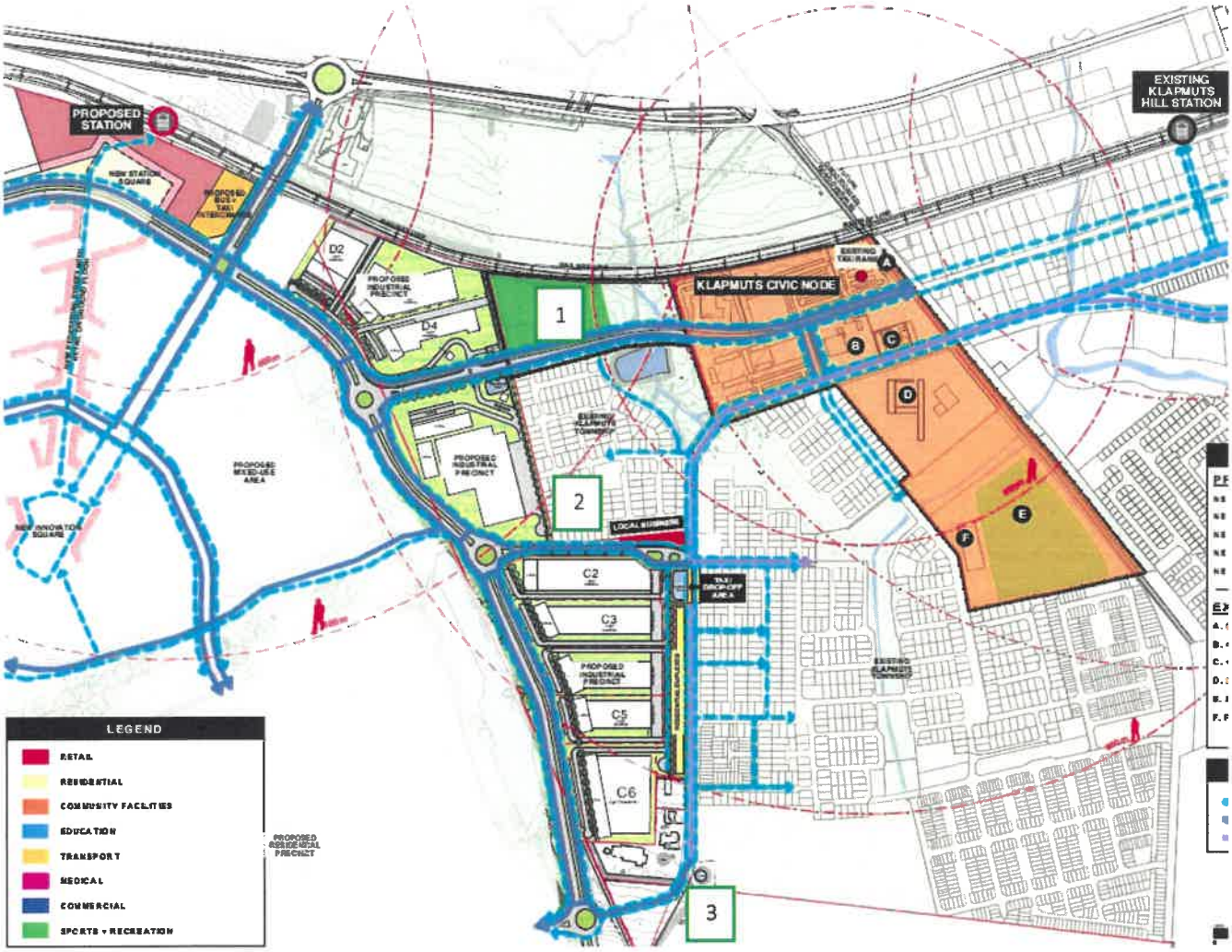
The Klapmuts Land Use and Movement Network Plan illustrates the movement and land use integration envisaged between the Stellenbosch Bridge development and the existing town and in our opinion how the municipal-owned Erf 342 can be used to create a civic node serving the surrounding neighbourhoods. Given the location of the clinic, primary school and taxi rank there is an opportunity to add additional civic functions as well as creating the thresholds for commercial facilities such as shops, serving the surrounding areas and passing trade. Of longer-term benefit will be the east-west link created between the Stellenbosch Bridge station/retail area and allowing convenient pedestrian and NMT movement between the areas.

We have taken into consideration the MPT comments about the limitation of physical linkages between the town and the new development area and have redesigned the industrial precinct to allow a third road link (numbered No 2 in drawing below).

The proposed east/west road is bound by a cycle lane, and a pedestrian sidewalk on both sides. As requested by the Municipality, this link is to be designed to prevent heavy vehicles (above 3.5 tons) from accessing the existing residential streets. This road will be a private road which by means of which the management of heavier vehicles can be controlled. The road will be subdivided when the industrial zoned Portion 2 is subdivided for implementation – the Industrial Zone allows for private road.

The site shown as 'local business' is intended to consist of a small spaza shop or trading stalls serving pedestrians and cyclists employed in the the light industrial estate, as well as circulating between the existing residential neighbourhood and Stellenbosch Bridge.

In total three movement linkages, indicated in the drawing below are provided for, each designed with sufficient space to accommodate pedestrian/NMT usage and ensuring that commercial, employment and social facilities are generally within walking distance (800m) of the surrounding communities.

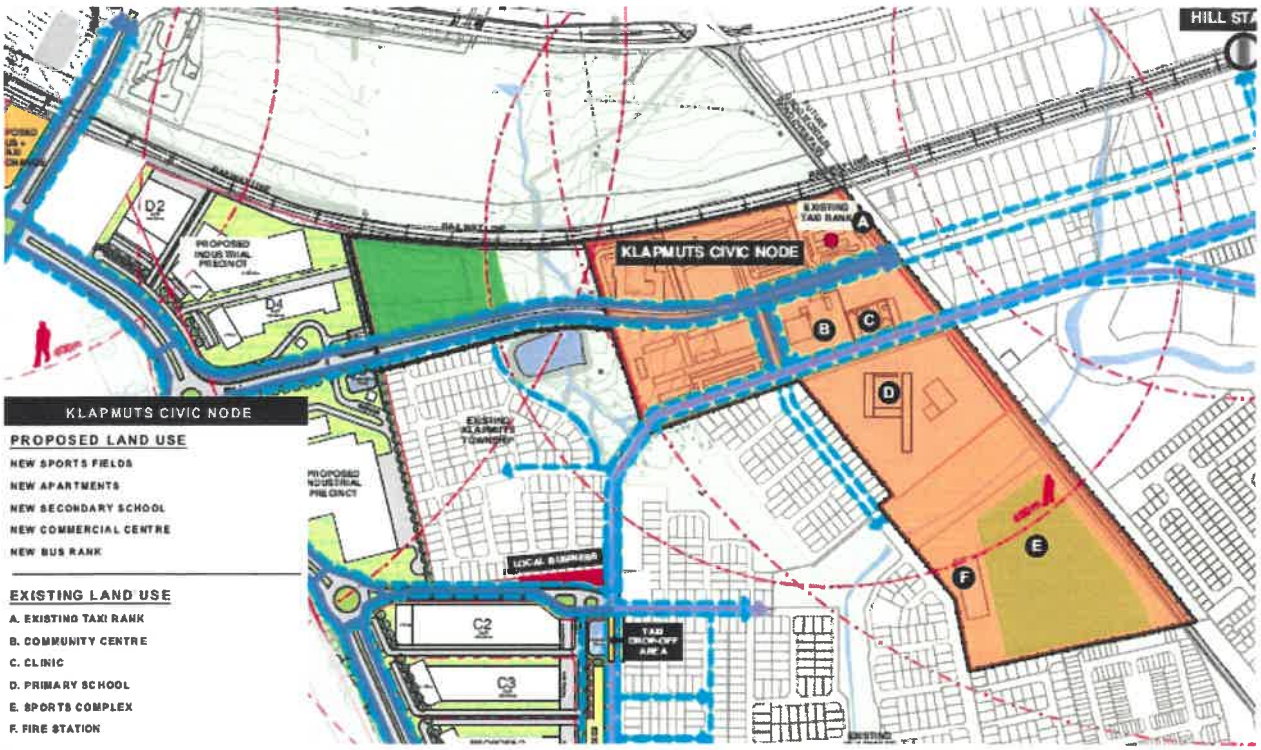


4. Integration of Residential and Local Business

Following the input of the members of the MPT further consideration was given to the interface between the existing residential areas and the industrial precinct. Along the southern section of Merchant Street the opportunity was identified to incorporate a residential strip of walk-up apartments enjoying direct access from Merchant Street and providing a two-storey residential option which can address the raised concern of the missed opportunity of providing a site for affordable or social housing provision as part of the development. As residential rights do not currently form part of the application for this Precinct a separate application will be launched immediately on approval to rezone this site from the proposed Transport Facilities Zone (thereby ensuring that the site cannot be used for industrial as an avoidance of the commitment in future) to Multi-unit Residential and allocate residential rights to this site as part of the development's basket of rights.

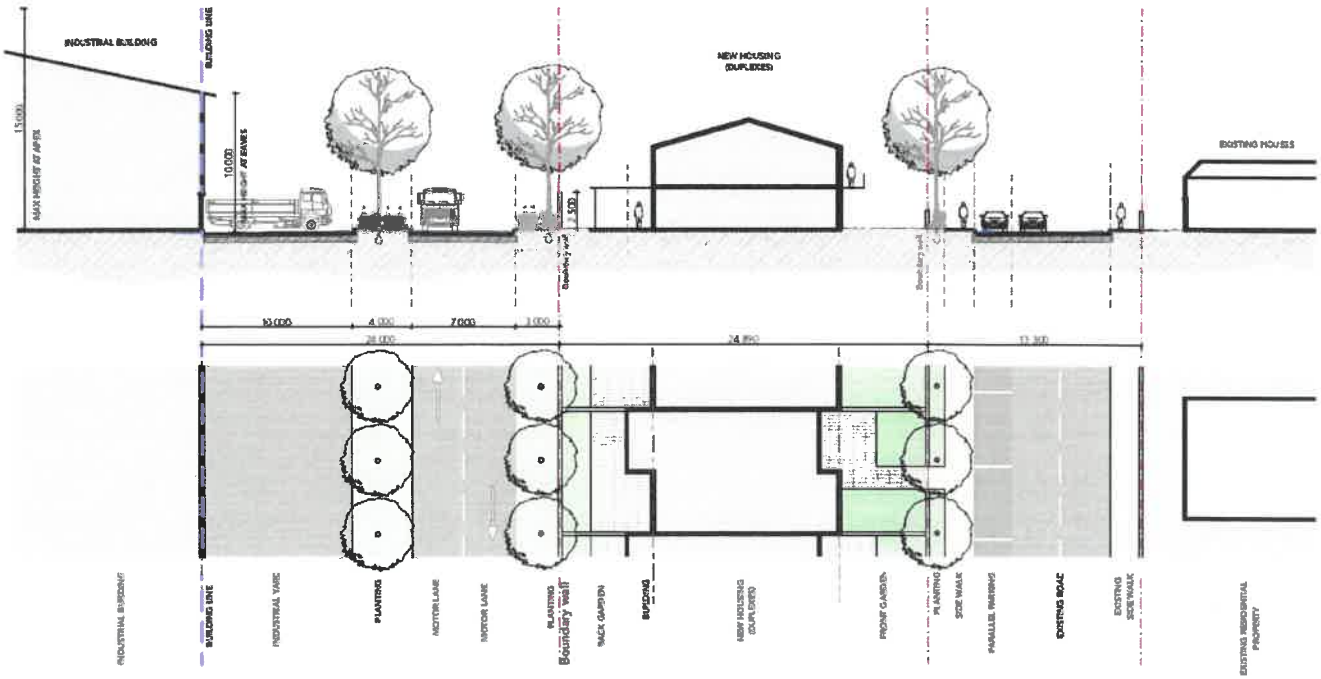
The site was also considered for business use, but we are of the opinion that such as extensive area of business will not be sustainable within this location as the catchment area will be limited to a relatively small area of residents. Even with NMT/pedestrian movement to and from the industrial area it is likely that only limited commercial opportunity will exist, hence the only amenity proposed in the immediate vicinity is the site shown as local business which would probably consist of a spaza shop and/or trading stalls serving pedestrians and the industrial complex workers heading in an east/west direction between the existing residential neighbourhood and Stellenbosch Bridge. Larger retail will require a more central position, hence the proposal of shops adjacent to the Taxi Rank where the local community can access the facility more conveniently and it can benefit from a larger transient market.

The roads in this area will also be better suited to handle the additional traffic. Below is a proposed land-use plan that could unlock the potential of this community node.

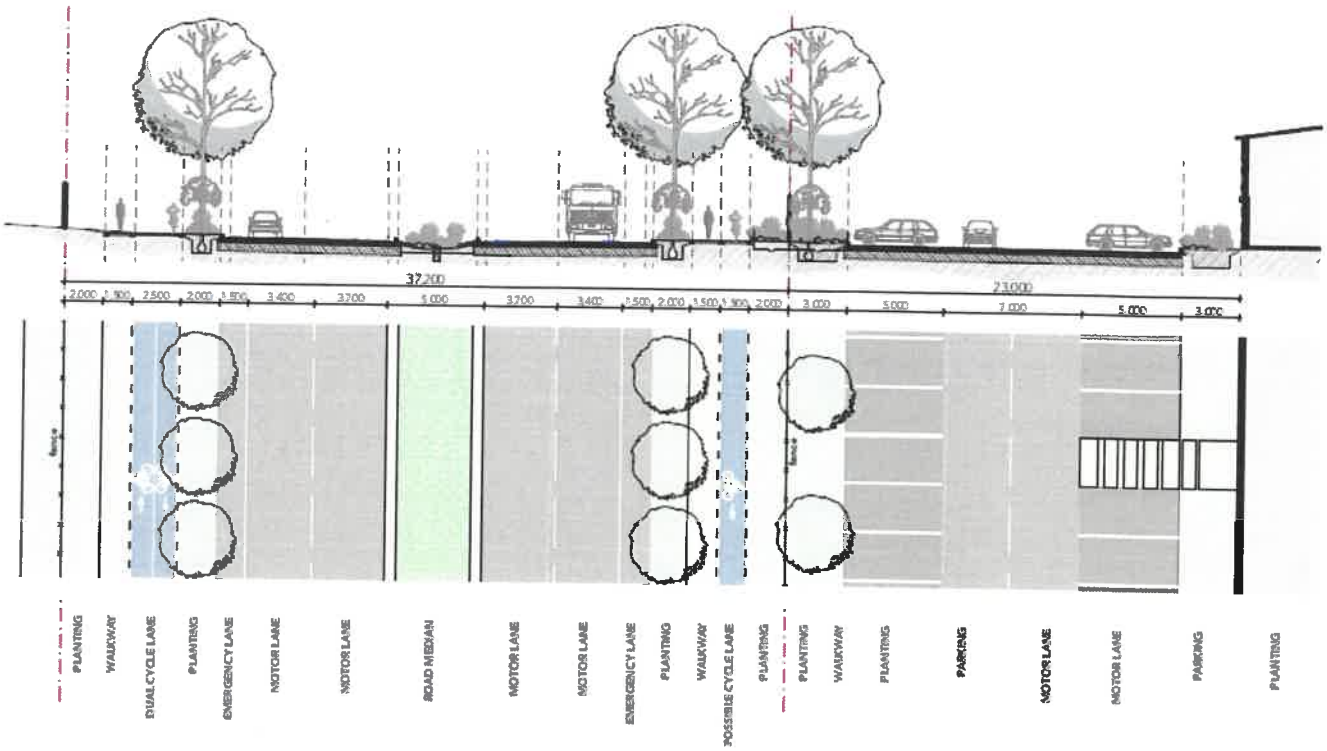


5. Design of Industrial Interface

As per the Draft Site Development Plan, setback lines are proposed to be more restrictive than the 3m permitted by this zone. The design guidelines propose a minimum of 20m which facilitates a larger separation between the residential and industrial buildings. The draft SDP proposes the incorporation of parking/loading areas east of the buildings to create a further setback from the residential units. The design allows for loading to be either from the currently shown back area, or a side area. The specific intent of this design is that the office components of the light industrial businesses face on to the new Klapmuts Hills Road (this will be the tenants main entrance road). The boundary wall of the back area will be bordered by trees to soften the impact to the back of the existing residential units, or the adjacent residential duplexes proposed are show in the section drawing below.



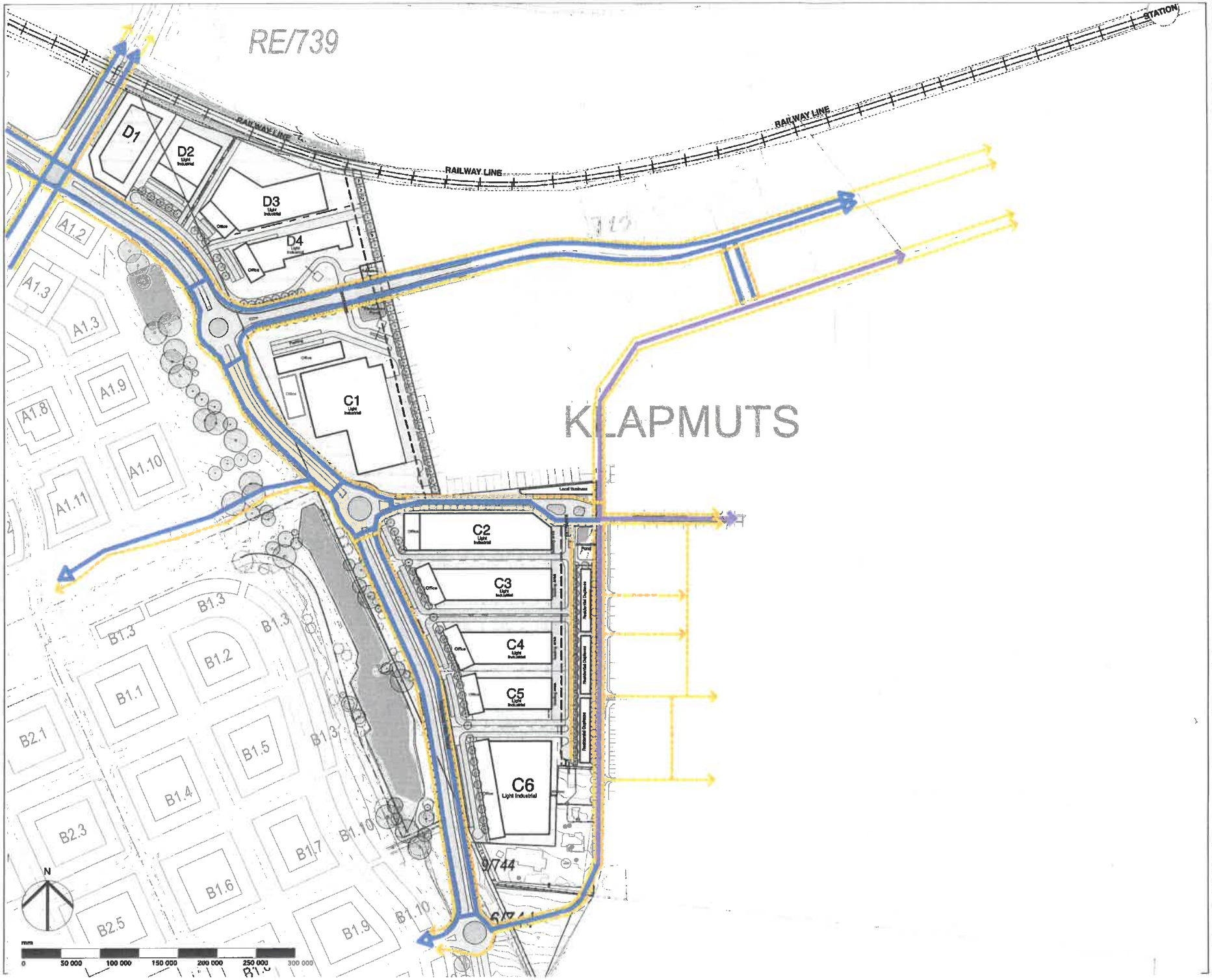
This will ensure that the loading areas are concealed from view of all surrounding public streets. Access to the loading bays / areas of the industrial component should be such that it ensures that the heavy vehicles have easy access to the high order roads only. The intention is to create a pleasant 'face' to the public edges of the small industrial estate, with a transparent boundary fence, complimented by well-maintained lanscaping. From a commercial point of view the (restrained) advertising opportunity of facing onto Klapmuts Hills Road (as indicated in the section drawing below) will enhance the value of the development for potential light industrial tenants/owners.



We trust that the additional detail provided gives assurance that the interface between the industrial and residential uses will be appropriately managed through landscaping and design control and that the additional road link together with the pedestrian and NMT facilities allowed for along all three roads between the development and the existing town will allow sufficient connection for easy access. The incorporation of an affordable/social housing provision and local business opportunities responds to the inputs provided by the MPT and is considered an improvement to the original proposal.

Yours sincerely

Anton Lotz



NOTE

LEGEND

- DEDICATED CYCLE PATH
- CYCLIST USES STREET
- PEDESTRIAN NETWORK

51

PROJECT

ARCHITECT

OL

DRAWING TITLE

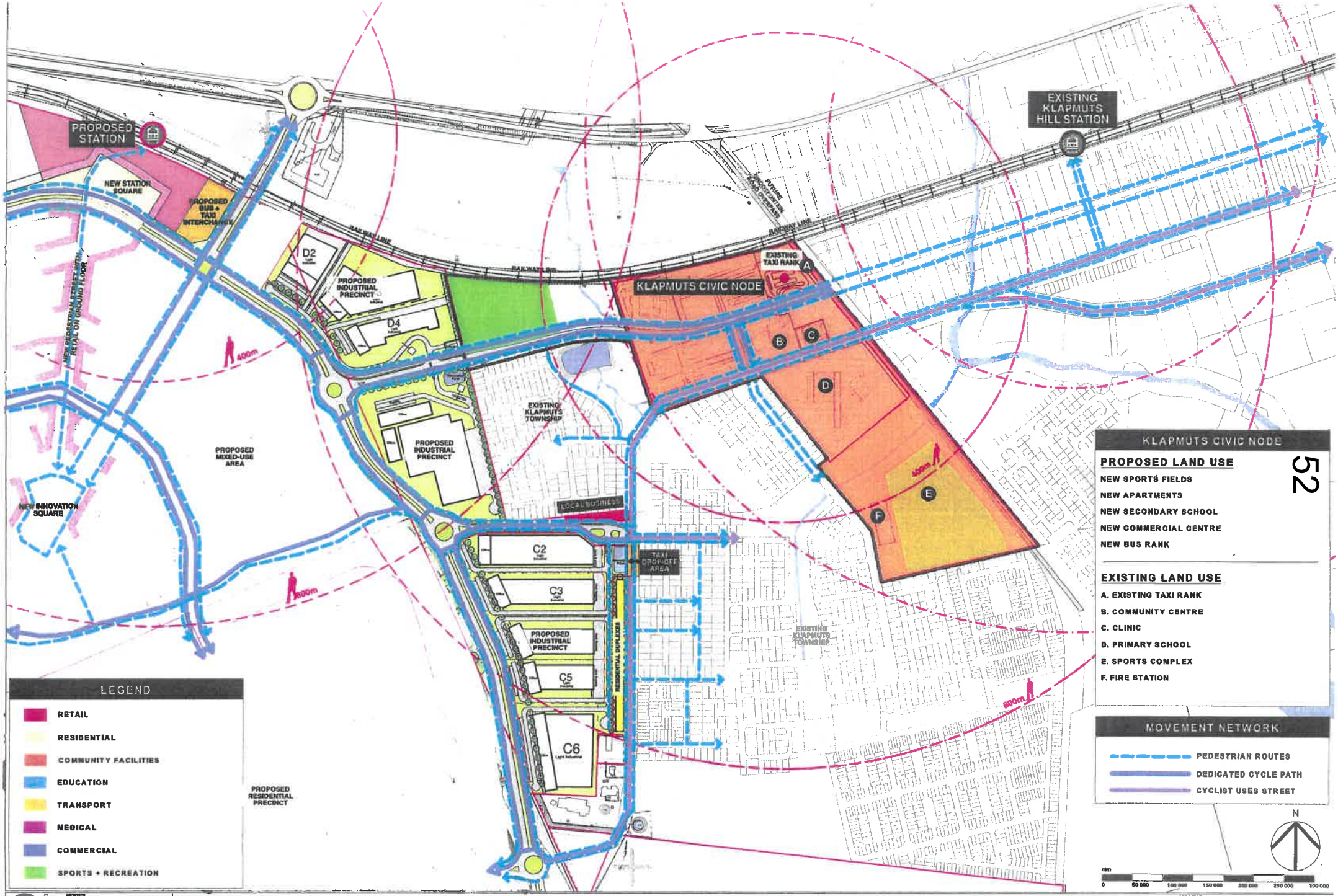
BUILDING CLASSIFICATION	CLIMATIC ZONE
RESPONSIBLE PERSON	DATE APPROVED
DESIGN	
DRAWN	

For Information

DRAWING PATH

SCALE	SHEET SIZE
AS INDICATED	A0

A



LEGEND

- RETAIL
- RESIDENTIAL
- COMMUNITY FACILITIES
- EDUCATION
- TRANSPORT
- MEDICAL
- COMMERCIAL
- SPORTS + RECREATION

KLAPMUTS CIVIC NODE

52

PROPOSED LAND USE

- NEW SPORTS FIELDS
- NEW APARTMENTS
- NEW SECONDARY SCHOOL
- NEW COMMERCIAL CENTRE
- NEW BUS RANK

EXISTING LAND USE

- A. EXISTING TAXI RANK
- B. COMMUNITY CENTRE
- C. CLINIC
- D. PRIMARY SCHOOL
- E. SPORTS COMPLEX
- F. FIRE STATION

MOVEMENT NETWORK

- PEDESTRIAN ROUTES
- DEDICATED CYCLE PATH
- CYCLIST USES STREET

N

mm 0 50 000 100 000 150 000 200 000 250 000 300 000

ARCHITECTS
Osmond Lange Architects and Planners
Nolrose Arch
OSMOND LANGE ARCHITECTS + PLANNERS

PROJECT: Stellenbosch Bridge

PROJECT No. J1307 | DRAWING NUMBER | REVISION -

Lh 11252.
Amendment work out to planner

REMAINDER PORTION 2 OF FARM 744, PAARL

APPLICATION FOR REZONING, SUBDIVISION AND CONSENT

SUBMITTED TO THE STELLENBOSCH MUNICIPALITY

ON BEHALF OF

STELLENBOSCH BRIDGE PROPERTIES (PTY) LTD

JUNE 2020

(Revision 3)

AROUX TOWN PLANNING

AntonLotz

EXECUTIVE SUMMARY

THE APPLICATION

Application is hereby made for the following in terms of the Stellenbosch Municipality: Land Use Planning By-law, 2015 in relation to Remainder of Portion 2 of Farm 744, Paarl:

- Application to rezone Remainder of Portion 2 of Farm 744, Paarl from Agriculture & Rural Zone to Subdivisional Area Overlay Zone, including the approval of a Basket of Rights providing for a floor area of 90 500m².
- Application to subdivide Remainder of Portion 2 of Farm 744, Paarl into six portions, to provide for:
  - 2 x portions zoned Subdivisional Area Overlay Zone
  - 2 x portions zoned Industrial Zone
  - 2 x portions zoned Public Roads & Parking Zone
- Application for Consent of Council to allow Business Premises on Portions 1 and 2.

Table I provides a summary of the property and application details:

Table I – Summary of Property and Application Details			
Property Description	Remainder of Portion 2 of Farm 744, Paarl		
Registered Owner	Safamco Enterprises (Pty) Ltd		
Applicant	Anton Lotz Town & Regional Planning and ARoux Town Planning in association		
Property Extent	21,1299 ha		
Current Zoning	Agriculture and Rural Zone		
Current Land Use	Vacant		
Applicable Zoning Scheme	Stellenbosch Municipality Zoning Scheme By-law (2019)		
Municipality	Stellenbosch Municipality		
Title Deed	T24204/1971	**Title Deed Restrictions**	None
Subject to NEMA	Yes, environmental basic assessment in process	**Subject to NEMA**	Yes, NID to be submitted to HWC as part of environmental basic assessment process
Proposed Development / Land Use	Manufacturing, data centre and distribution and business uses with a floor area of 90 500m²		
Policy Compliant	Yes		

Town

THE PROPOSAL

- In 2011 the Stellenbosch Municipality granted approval for the Klapmuts Hills development, which included approval of the Development Framework, rezoning, subdivision and departures to permit urban development on this site within an approved Basket of Rights.

- The residential market was in a deep slump by the time these rights were approved which resulted in a significant delay in implementation of the rights. During this time a new vision was developed for Klapmuts which includes the establishment of an innovation hub. The development was renamed as *Stellenbosch Bridge* and includes various landholdings forming the innovation precinct development.

- The site (Remainder Portion 2 of Farm 744, Paarl) consists of the portion of land situated between the western edge of the existing Klapmuts urban area and the Klapmuts Hills site to the west (Portion 5 of Farm 742, Paarl). Despite its agricultural zoning, the site has been included within the Klapmuts urban edge for a number of years.

- Although currently owned by a separate entity, the site forms part of the larger Stellenbosch Bridge development site and, according to the draft Stellenbosch Bridge master development plan, forms the light-industrial precinct along the eastern edge. The vision for this precinct is to function as a manufacturing, logistics and data centre area for the Innovation Precinct. This development will fulfill an important role in the innovation precinct concept and functioning of the Stellenbosch Bridge development.

- A series of separate applications are being submitted to the Stellenbosch Municipality to allow the phased implementation of development rights for the Stellenbosch Bridge development on separate land units. Therefore, although the subject property forms part of the Stellenbosch Bridge development site, it was agreed with the Municipality that a separate land use application (including rezoning and subdivision) will be submitted for this site.

- Application is made to rezone the site to Subdivisional Area and to subdivide it into six portions, including portions for future light-industrial development, public roads, private open space and existing industrial buildings. Application is made for the approval of a Basket of Rights for a total floor area of 90 500m² for manufacturing, logistics, business and data centre uses. An application for Council's consent for Business Premises is therefore also included.

- Portions 1 and 6 of the proposed subdivision (to be zoned Subdivisional Area Overlay Zone) will at a later stage (separate application) be consolidated with portions of the adjacent Portion 5 of Farm 742 (to be subdivided as part of a separate application).

- Although Portion 2 will contain separate industrial land units, these units will be developed as a sectional-title scheme. This portion will therefore not be subdivided, but a precinct plan and SDP's will be submitted after approval of this application.

MOTIVATION

- The proposed development complies with the land use development principles contained in LUPA and SPLUMA and is also aligned with the Stellenbosch Municipality's SDF (2019).
- Although zoned as Agriculture & Rural, the site is not deemed viable agricultural land. Soil studies confirmed that the site has a low agricultural rating and has been mined for sand. The site has been included within the Klapmuts urban edge for at least the last 18 years.
- The existing Klapmuts community has a high unemployment rate and the area is in dire need of economic investment and accessible employment creation. The proposed development will form an integral part of the Stellenbosch Bridge Innovation Precinct which will be a catalyst for local economic growth.
- The development layout will ensure that a sufficient buffer area is created between the manufacturing, data centre and distribution uses and the existing residential uses to the east.
- Due to human activity, the site does not contain any sensitive environmental or heritage elements. An environmental basic assessment is currently being conducted, which include specialist studies. The draft basic assessment report, which will include specialist reports, will be provided when available.
- A traffic impact statement (TIS) has been prepared by the project traffic engineers. Only minor road improvements are required to accommodate this development. The development of the Stellenbosch Bridge Innovation Precinct will result in the phasing in of several road upgrade projects that will also be of benefit to this development.
- Sufficient service capacity is available to accommodate the proposed development, which in part is linked to the installation of bulk service infrastructure which is being undertaken by the developer as part of the Stellenbosch Bridge development.

CONCLUSION

The proposed development of manufacturing, distribution, business and data centre uses will make a positive socio-economic contribution to Klapmuts, where unemployment levels are currently high. Forming part of the Stellenbosch Bridge development, it is in line with the Municipality's spatial vision for the area and will contribute to Klapmuts becoming a significant regional economic centre.

Anton Lotz Town & Regional Planning and ARoux Town Planning in association recommends that this application, for the rezoning of Remainder Portion 2 of Farm 744, Paarl from Agriculture & Rural Zone to Subdivision Area, for the subdivision of the property into six portions to accommodate a floor area of 90500m², and consent of Business Premises be considered for approval.

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Annexure J	Civil Engineering Services Report
Annexure K	Electrical Services Report

1.0 INTRODUCTION

1.1 PROPERTY AND APPLICATION DETAILS

Table 1 below provides a summary of the property and application details:

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Registered Owner	Safamco Enterprises (Pty) Ltd
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Property Extent	21,1299 ha
Current Zoning	Agriculture and Rural Zone
Current Land Use	Vacant
Applicable Zoning Scheme	Stellenbosch Municipality Zoning Scheme By-Law 2019
Municipality	Stellenbosch Municipality
Title Deed	T24204/1971
Registration Date	13 September 1971
Title Deed Restrictions	None (refer to conveyancer certificate – Annexure D)
Proposed Development / Land Use	Rezoning and subdivision to accommodate manufacturing, data centre, business and distribution uses with a floor area of 90500m²
Application Components	• Rezoning from Agriculture & Rural Zone to Subdivisional Area Overlay Zone • Subdivision into 6 portions to accommodate: o 2 x portions zoned Subdivisional Area Overlay Zone o 2 x portions zoned Industrial Zone o 2 x portions zoned Public Roads & Parking Zone • Consent of Council to allow Business Premises on Portions 1 and 2.
Subject to NEMA	Yes – environmental basic assessment in process
Subject to PHRA / SAHRA	Yes – Notice of Intent to Development must be submitted to HWC - being done as part of basic assessment process
Policy Compliant	Yes

1.2 BACKGROUND

Klapmuts enjoys the benefit of a strategic location in relation to the Cape Town metropolitan area, Paarl and Stellenbosch as well as excellent regional and national accessibility due to its proximity to the N1 Freeway and the Cape Town - Gauteng railway line. The locational advantages of Klapmuts encouraged a group of investors to form the Stellenbosch Wine and Country (Pty Ltd and invest in land adjacent to the Klapmuts urban edge for a large-scale, higher-density residential development that would add higher-income residential units to the town.

After a lengthy process to include the site into the Klapmuts urban edge, get environmental authorization, and apply for rezoning and subdivision, the Stellenbosch Municipality granted approval for the Klapmuts Hills development on Portion 3 of Farm 742, Paarl and the Remainder of Farm 742, Paarl (now registered as Portion 5 of Farm 742, Paarl) in 2011. The approval included the Development Framework, rezoning, subdivision and departures to permit urban development within an approved Basket of Rights which allowed for 1 577 residential units and a Gross Lettable Area (GLA) of 23 200m² for retail and other uses for associated services and facilities to the residential development.

The residential market was in a deep slump by the time these rights were approved in 2011 which resulted in a significant delay in implementation of the rights. During 2017/2018 Beal Consulting undertook the Klapmuts Special Development Area Economic Feasibility Study on behalf of the Stellenbosch Municipality. This document went through substantial public participation and received widespread endorsement, including from the local community for the establishment of an innovation hub in Klapmuts.

The new vision for Klapmuts allowed a reimagination of what the Klapmuts Hills land could be used for. At the same time the ownership structure of Stellenbosch Wine and Country (Pty) Ltd went through significant change which resulted in a renaming and rebranding of both the company and the development to Stellenbosch Bridge (Pty) Ltd and Stellenbosch Bridge respectively. Stellenbosch Bridge validated the vision for the landholdings as a dynamic, innovative and sustainable hub, building bridges locally and globally.

Specialist consultants were appointed with members of the original project team to research and design a mixed-use innovation precinct on the Stellenbosch Bridge site, which include the previous Klapmuts Hills site and additional landholdings surrounding this site. The planning team also provided input to the 2018/2019 Stellenbosch MSDF to allow the vision of the Klapmuts innovation hub to guide decisions on the Klapmuts urban edge and spatial budget. Klapmuts has in the Stellenbosch MSDF been designated as the secondary node to the town of Stellenbosch and the growth and development thereof as an innovation hub will hold significant socio-economic benefit for the town and the region.

The envisioned Stellenbosch Bridge Innovation Precinct is a significant development which needs to be developed logically and in phases to ensure the success and viability thereof. At the same time, the development site involves various land units, some of which already have been through application processes and have valid development rights has and others that only recently got incorporated into the Klapmuts urban edge and still need to be subjected to various application processes.

Market interest in the innovation precinct is already significant and to avoid unnecessary long process delays which could potentially result in the missing of an economic growth cycle a series of applications will be submitted in terms of a clear vision and development framework for the innovation precinct to facilitate an expedient roll-out of rights and services. A Package of Plans process is proposed to allow flexibility in the implementation of the approved rights according to appropriate levels of information in terms of which the authorities can verify and monitor the rollout.

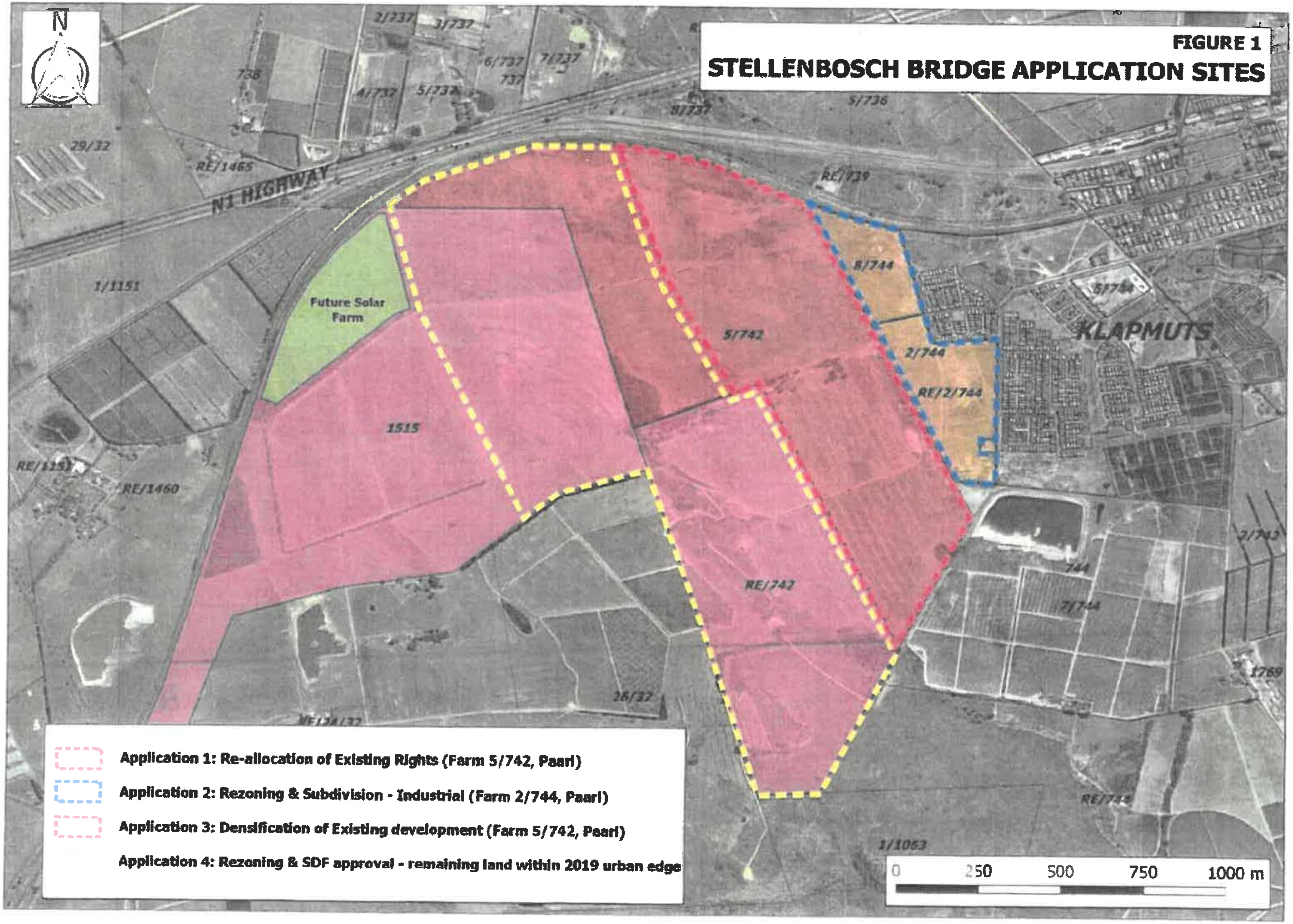
Four applications are planned (also refer to **Figure 1**):

- **Application 1** (recently submitted): Reallocation of the existing rights approved for Farm 742/5 in terms of the vision for the redevelopment of the site as part of the innovation precinct and in terms of the services capacities already provided for;
- **Application 2** (this application): Rezoning and Subdivision of Remainder Farm 744/2 which has at least before 2001 been part of the Klapmuts urban edge and forms part of the larger development;
- **Application 3**: Densification on Farm 742/5 in terms of the Development Framework with supporting documentation and plans for the Stellenbosch Bridge Innovation Precinct;
- **Application 4**: Development Rights for land included into the urban edge in terms of the 2019 Stellenbosch MSDF.

Remainder of Portion 2 of Farm 744, Paarl (from here-on referred to as "the site") is the portion of land situated between the western edge of the existing Klapmuts urban area and the Klapmuts Hills site to the west (Portion 5 of Farm 742, Paarl). Despite its agricultural zoning, the site has been included within the Klapmuts urban edge for a number of years and envisaged to form part of the town's expansion westwards.

Although currently owned by a separate entity, the site forms part of the larger Stellenbosch Bridge development site and, according to the Stellenbosch Bridge development framework, forms the light-industrial precinct along the eastern edge of the Stellenbosch Bridge development. The vision for this precinct is to function as a manufacturing, logistics and data centre area for the Innovation Precinct. This development will fulfill an important role in the innovation precinct concept and function of the Stellenbosch Bridge development.

FIGURE 1
STELLENBOSCH BRIDGE APPLICATION SITES



Application 1: Re-allocation of Existing Rights (Farm 5/742, Paarl)

Application 2: Rezoning & Subdivision - Industrial (Farm 2/744, Paarl)

Application 3: Densification of Existing development (Farm 5/742, Paarl)

Application 4: Rezoning & SDF approval - remaining land within 2019 urban edge

As mentioned above, a series of separate applications are being submitted to the Stellenbosch Municipality to allow the phased implementation of development rights for the Stellenbosch Bridge development on separate land units. Therefore, although the subject property forms part of the Stellenbosch Bridge development site, it was agreed with the Municipality during pre-submission consultation that a separate land use application (including rezoning, subdivision and consent) be submitted for this site. This is due to (1) the site's location within the existing Klapmuts urban edge and (2) higher levels of accessibility to transport and services infrastructure. The development of the site will be aligned will the development framework of the Stellenbosch Bridge development, but allows a quicker time-frame for implementation.

Anton Lotz Town & Regional Planning and ARoux Town Planning have been appointed as part of a multi-disciplinary project team for the Stellenbosch Bridge development. Power of attorney has been provided by the current property owner to submit this application for rezoning, subdivision and consent on their behalf (refer to **Annexure B**).

1.3 STATUTORY INFORMATION OF THE PROPERTY

1.3.1 Property Ownership and Registration

The subject property is officially registered as Remainder of Portion 2 of Farm 744, Paarl. Although the site was previously subdivided to form Portion 8 and Remainder of Portion 2 of Farm 744, Paarl respectively, these portions were never formally registered. The subject property therefore remains Remainder Portion 2 of Farm 744, Paarl.

The property is currently owned by Safamco Enterprises (Pty) Ltd, as confirmed in the title deed (refer to **Annexure C**). An agreement of sale is in place between Stellenbosch Bridge (Pty) Ltd and Safamco (Pty) Ltd.

1.3.2 Restrictive Title Deed Conditions

As confirmed in the attached conveyancer certificate (**Annexure D**), the property's title deed does not contain any restrictive conditions.

1.3.3 Servitudes

The site contains one unregistered servitude, namely a 9m wide pipeline servitude along the southwestern and southern boundaries of the site. Refer to the SG diagrams, attached as **Annexure E**.

1.3.4 Zoning and Land Use Rights

The property is currently zoned Agriculture & Rural Zone in terms of the Stellenbosch Municipality Zoning Scheme By-Law (2019).

1.4 PRE-SUBMISSION CONSULTATION

The Stellenbosch Municipality have been consulted on a regular basis regarding the development layout and requirements for the application. This include a formal meeting with Me Hedre Dednam, Manager of Land Use Management at the Stellenbosch Municipality, on 17 July 2019. Notes of this meeting is attached as **Annexure F**

2.0 NATURE OF THE APPLICATION

2.1 COMPONENTS OF THE APPLICATION

Application is hereby made for the following in terms of the Stellenbosch Municipality: Land Use Planning By-law, 2015 in relation to Remainder Portion 2 of Farm 744, Paarl:

- Application for rezoning of Remainder Portion 2 of Farm 744, Paarl from Agriculture & Rural Zone to Subdivisional Area Overlay Zone in terms of Section 15(2)(a) of the Stellenbosch Municipality: Land Use Planning By-law, 2015, including a Basket of Rights of 90 500m² floor area;
- Application for subdivision of Remainder Portion 2 of Farm 744, Paarl into six portions in terms of Section 15(2)(d) of the Stellenbosch Municipality: Land Use Planning By-law, 2015, to provide for:
    - 2 x portions zoned Subdivisional Area Overlay Zone
    - 2 x portions zoned Industrial Zone
    - 2 x portions zoned Public Roads & Parking Zone
- Application for Council's consent to permit business premises on Portions 1 and 2 in terms of Section 15(2)(o) of the Stellenbosch Municipality: Land Use Planning By-law, 2015.

2.2 REZONING AND SUBDIVISION

Application is made to rezone the property from the existing Agriculture & Rural Zone to Subdivisional Area Overlay Zone. This is to allow the subdivision of the property into 6 portions with multiple zonings, in accordance with the proposed Subdivision Plan, attached as **Annexure G**. Portions 4 and 5 will be zoned Public Road and Parking and Portion 6 will be zoned Subdivisional Area as its use will be open space once consolidated with the adjacent land unit. The existing buildings on the site will be accommodated on Portion 3 to be zoned Industrial Zone and will be retained by the existing land owner.

The two remaining portions, Portions 1 and 2, will be zoned Subdivisional Area Overlay Zone and Industrial Zone respectively and will contain the proposed development. A Basket of Rights for a total floor area of 90 500m² is being applied for and will apply to these two portions. The approval of the Basket of Rights will allow a range of manufacturing, logistics, business and data centre uses.

Note that Portion 1 will at a later stage be consolidated with a portion of the adjacent Portion 5 of Farm 742 (to be subdivided as part of a separate land use application). The zoning for the

consolidated portion will be confirmed at stage once the subdivision of the electrical infrastructure is finalised, hence the proposed Subdivision Overlay Zone for this portion.

Although Portion 2 will contain separate industrial land units, these units will be developed as a sectional-title scheme. This portion will therefore not be subdivided, but a precinct plan and SDP's will be submitted after approval of this application.

2.3 CONSENT

Application is also made for the Consent of Council to allow Business Premises on Portions 1 and 2. The intention is to allow the opportunity for better integration of a range of appropriate commercial, professional and/or retail uses with the intended industrial uses as part of an integrated mixed-use innovation precinct.

2.4 APPROVALS REQUIRED IN TERMS OF OTHER LEGISLATION

2.4.1 Approval in terms of National Environmental Management Act (NEMA)

An Environmental Basic Assessment process is required for development on this site. Legacy Environmental Management Consulting has been appointed as the environmental practitioner to undertake the basic assessment. The process has been initiated and the environmental authorisation (EA) from the Department of Environmental Affairs and Development Planning will be provided when available.

2.4.2 Approval in terms of National Heritage Resources Act

Due to the size of the site (larger than 5000m^2) a Notice of Intent to Develop (NID) must be submitted to Heritage Western Cape (HWC) in terms of Section 38 of the National Heritage Resources Act (No.25 of 1999). The NID will be done by a heritage specialist as part of the environmental basic assessment.

2.4.3 Approval in terms of Subdivision of Agricultural Land Act

Although the property is zoned Agriculture & Rural Zone, it has been located within the Klapmuts urban edge for some time. The Department of Agriculture is therefore currently being consulted to determine whether approval for the subdivision of this property in terms of the Subdivision of Agricultural Land Act No.70 of 1970 is applicable. Clarification on this matter will be provided shortly.

3.0 CONTEXTUAL ANALYSIS AND SITE DESCRIPTION

3.1 LOCALITY

Klapmuts is strategically located within a metropolitan region as it enjoys good road and rail accessibility. It is located 50 km east of the Cape Town CBD and approximately 15 km from Kraaifontein, Paarl and Stellenbosch. Klapmuts falls under the administrative jurisdiction of the Stellenbosch Municipality (refer to **Figure 2**).

The subject site is situated to the west of the Klapmuts village at the foot of Klapmutskop (refer to **Figure 3**).

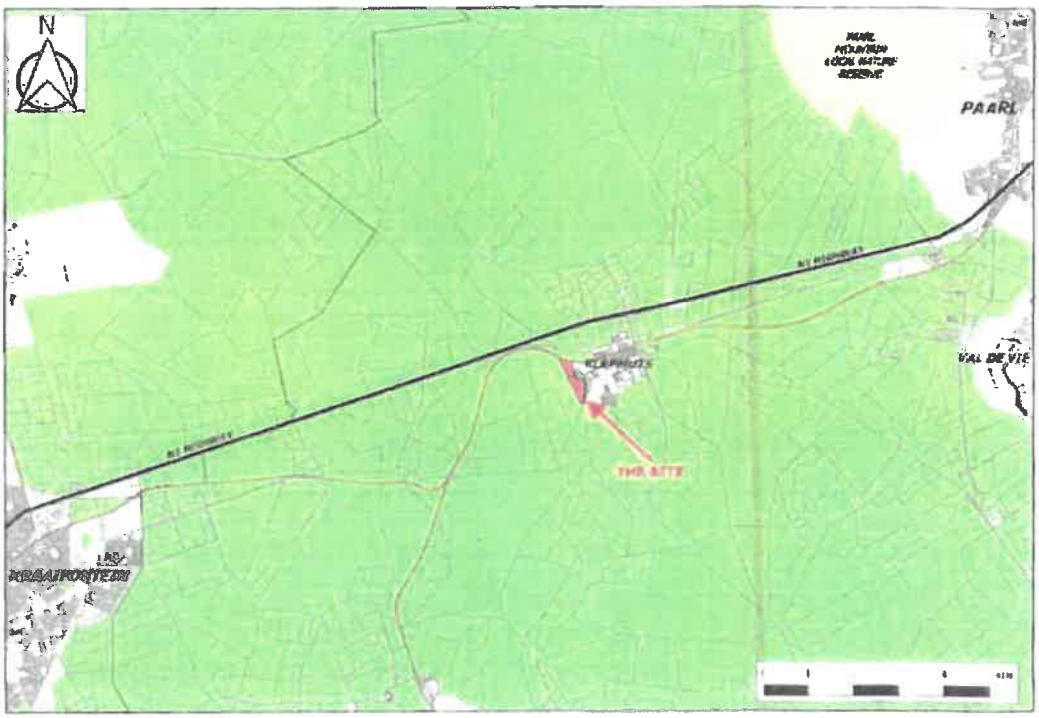
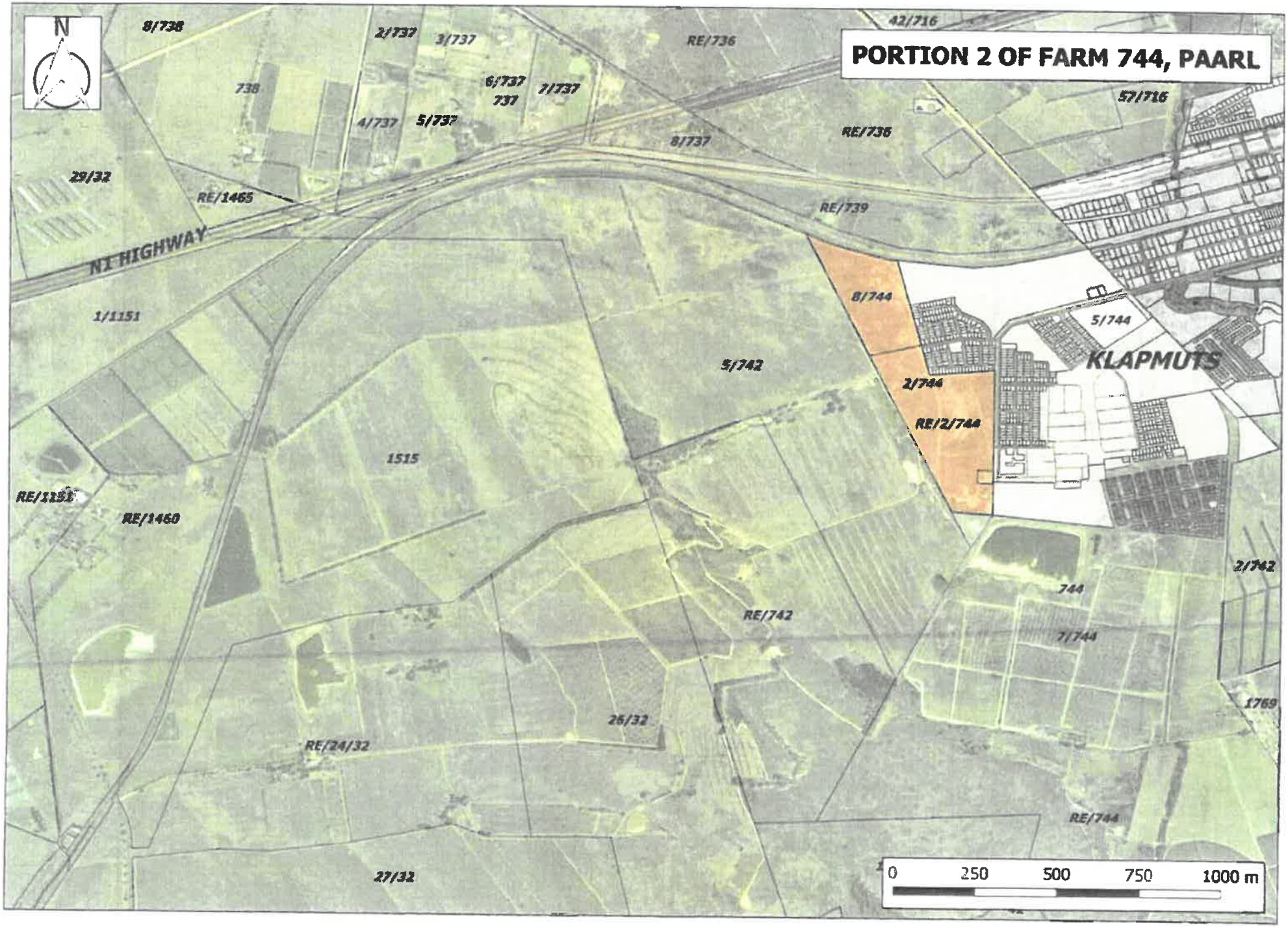


Figure 2 – Regional Context

3.2 CHARACTER OF THE AREA

The location is predominantly rural, with surrounding farms such as Muldersvlei and Elsenburg south of the site containing mainly vineyards with limited cultivation of fruit and the keeping of livestock. Tree lanes, windbreaks, and homesteads add to the aesthetic appeal of the setting. The landscape offers both short distance views over the agricultural landscape and Klapmutskop and long-distance


PORTION 2 OF FARM 744, PAARL
N
8/738
2/737
3/737
RE/736
42/716
738
6/737
737
7/737
4/737
5/737
8/737
RE/736
57/716
29/32
RE/1465
RE/739
N1 HIGHWAY
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KLAPMUTS
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5/742
2/744
RE/2/744
1515
RE/1151
RE/1460
2/742
744
RE/742
7/744
1769
26/32
RE/24/32
RE/744
27/32
0
250
500
750
1000 m

views across the valleys to the surrounding mountains such as Simonsberg, Paarl Berg, as well as the Klein Drakenstein and Du Toitskloof Mountains.

The Klapmuts Village east of the site consists mostly of low-income and informal housing (refer to **Figure 4**).

Figure 4 – Site image, illustrating the existing informal housing adjacent to the site's eastern boundary

3.3 TRANSPORTATION CONTEXT

Klapmuts is situated at the intersection of Old Paarl Road (R101), the R44, and the Franschhoek Road and is within easy access to the N1 Freeway. Its regional road accessibility is therefore very good (refer to **Figure 5**).

Figure 5 – Transportation Context

Linkages with the transport system are further enhanced by the mainline railway between Cape Town and Gauteng as well as the suburban rail link between Stikland and Wellington which runs through the town and is served by the Klapmuts station in the centre of the village. In addition to providing public transport access to towns like Paarl, Wellington as well as Kraaifontein and Brackenfell, the railway line also provides a link to Stellenbosch via a change-over at Muldersvlei Station.

Both the road and rail access from Klapmuts to the surrounding towns and metropolitan Cape Town are very good.

3.4 SOCIO-ECONOMIC CONTEXT

The Klapmuts population increased by 5% year-on-year between the 2001 and 2011 census period. Stellenbosch's draft Urban Development Strategy (2017) assigns this growth to natural population growth and in-migration particularly from the 20 to 29 age cohorts. The average household size in Klapmuts is 3.7 and is slightly higher than the municipal-wide average. Almost a third of households in Klapmuts have five or more inhabitants which may indicate some level of overcrowding.

The average household income in the Stellenbosch Municipality has steadily increased between 2001 and 2011, from R97,880 to R154,617 (or by 4.8%). Measuring levels of poverty and inequality for the period 2006 to 2011, Statistics South Africa's 2014 Poverty Trends Report specifies that the lower-bound poverty line (LBPL) for March 2011 was set at R443. A little more than 20% of Klapmuts' households would therefore be below this poverty line beyond which households would need to sacrifice essential food items to obtain non-food items. Of further significance is that 47% of Klapmuts' households earn up to R38,200 – considered the broader low-income bracket – compared to the municipal-wide index of 32% while 21% of its households do not earn any income.

According the demographic analysis undertaken in terms of the Municipality's Urban Development Strategy, a third of households qualify for social housing; i.e. households with a combined income of R2,500 to R7,500 each month.

It is estimated that around 17% of Klapmuts' labour force is unemployed, which is significantly higher in Klapmuts when compared to the municipal-wide level.

3.5 SITE DESCRIPTION

3.5.1 Existing Land Use and Structures

The site has a total extent of 21,13ha and is zoned Agriculture & Rural Zone.

(t)? Town own

The site is mostly vacant with the only structures on the site being the current owner's industrial and residential buildings close to the site's southern boundary (refer to **Figure 6**). All of these structures will be retained, and a separate portion will be created as part of the proposed subdivision. This portion will be retained by the current owner.

The remainder of the site contains disturbed natural vegetation (refer to **Figure 7**). The site was mined for sand and gravel in the past. As a result, much of the site's topsoil has been removed.

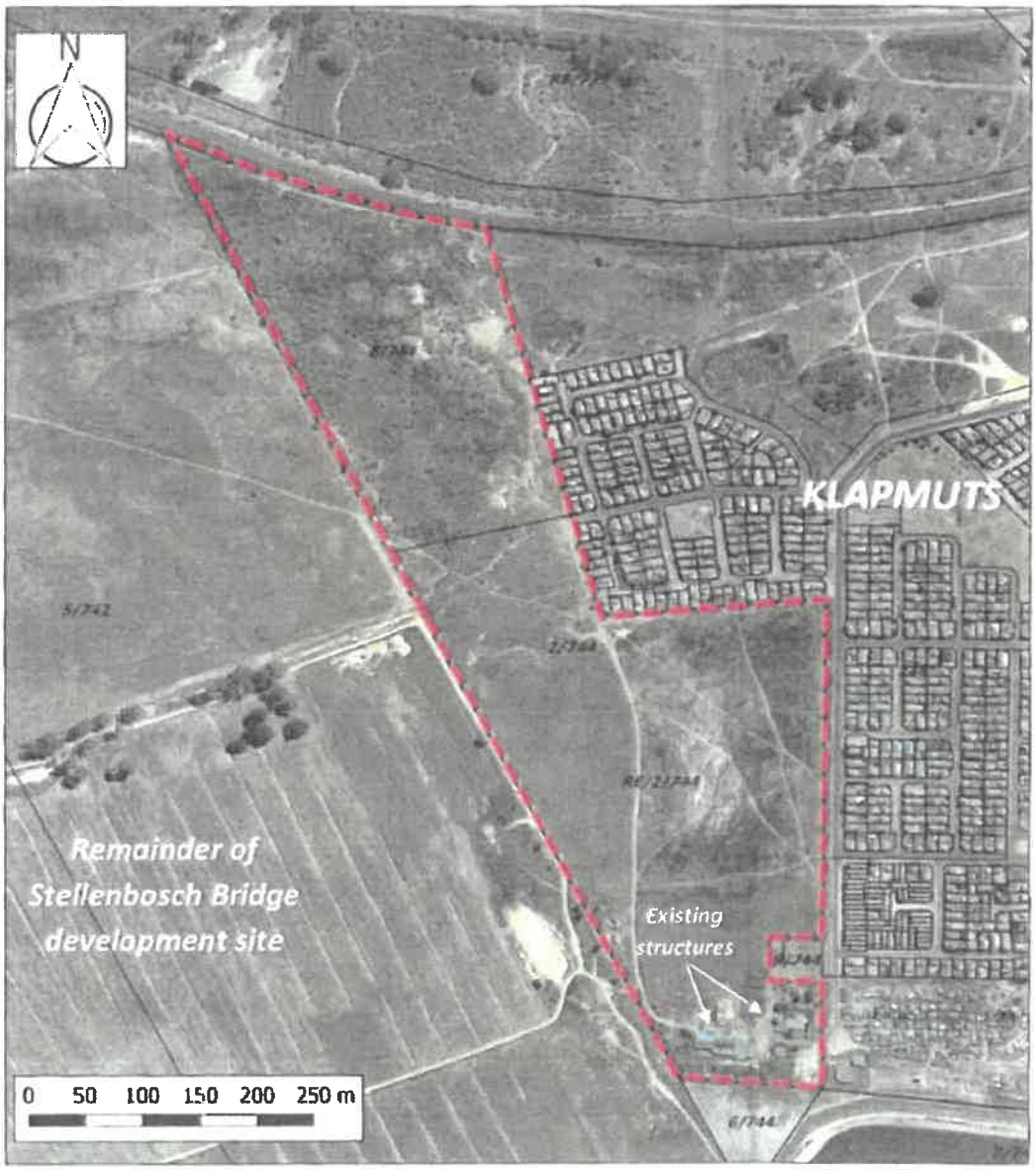


Figure 6 – Aerial Image

Figure 7 – Site image, viewed from the eastern boundary towards to the west

3.5.2 Topography and Drainage

The site lies directly west of Klapmuts at a slightly higher elevation and at the foot of the hill overlooking Klapmuts from the west. The site slopes from the southwest in a north-easterly direction, with a total elevation change of approximately 17m. There are no clear drainage lines across the site and the site is not affected by any floodlines. There are some areas of surface spoil present on the northern half of the site.

The site does not contain any strongly defined topographical features and no significant streams or large dams although localised pooling may take place during high rainfall periods due to the sand and gravel having been removed.

3.5.3 Geology and Soils

The dominant underlying geological material is coarse porphyritic Cape granite. The majority of soils have developed from locally derived colluvial material which ranges from fairly sandy, coarse-grained material to fairly clayey, highly weathered reddish material.

The site's soil has been disturbed by human activity (most likely for sand and gravel mining in the past) without any rehabilitation taken place of the area after mining. Owing to the shallow nature of the soils, wetness is a major problem during the rainy season. As most of the "better" surface and subsurface layers of the soils have been removed, with only the deeper clay layers remaining, these soils have a low agricultural rating.

3.5.4 Fauna and Flora

The site was previously used for sand and gravel mining and are currently infested by alien vegetation. No significant vegetation areas are present on the site.

Small mammals, including Steenbok, game birds as well as reptiles and rodents may visit the site from time to time from the naturally vegetated Klapmutskop. The biodiversity of the site is low due to the lack of natural vegetation.

3.5.5 Visibility of the Site

The site is of a relatively low-lying nature and adjacent to existing residential areas. Therefore it has limited visibility from surrounding developed areas and major routes.

4.0 THE DEVELOPMENT PROPOSAL

4.1 BACKGROUND OF THE STELLENBOSCH BRIDGE DEVELOPMENT

4.1.1 The Development Concept

Stellenbosch Bridge is a visionary development – it is focussed around an innovation precinct that will attract local and international innovation stakeholders to locate in a mixed-use, live, work, play and innovate environment. It will attract investment by connecting and building bridges between people, science, business, innovation and entrepreneurship in one place.

It is the intention of the owners to develop this project over the next 15 to 20 years, fully integrated into the larger Stellenbosch spatial vision, and with the participation of all stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the Western Cape Government. To this end the owners recently donated 30 hectares of the property to University of Stellenbosch to provide space to amongst others Innovus, the commercialization arm of the University of Stellenbosch and allow the institution to become a key partner.

Stellenbosch Bridge will enhance business development and innovation through clustering, and co-location of fast-growing sectors and public and private research establishments from South Africa, Africa and the rest of the World. The emphasis on state-of-the-art technology and smart systems will ensure that Stellenbosch Bridge is the premier address to locate a business on the African continent. The accessible location of Stellenbosch Bridge will be strengthened through virtual networks that span globally.

Stellenbosch Bridge will facilitate investment in local people encouraging tenants to focus on skills development, capability building and job creation. It will be an inclusive and sustainable development that will benefit a broad range of citizens for generations to come. The primary thrust of this development is economic progress and advancement through science, technology and innovation. It is a place where individual brilliance and talent meets resourced establishments, venture capitalists and government support.

Coupling technology with infrastructure design and sustainability this development will become a model for modernized development and living, working and leisure trends. Stellenbosch Bridge aspires to use the latest smart and green technologies and is a showcase destination for technology development and a prosperous knowledge economy.

4.1.2 The Concept Master Plan

Stellenbosch Bridge is made up of four development erven. At the heart of the development will be the innovation precinct where entrepreneurs, researchers, academics and corporates will connect to develop and incubate new products and services for fast-growing and promising industry clusters. The precinct will have a mixed-use character providing for all aspects of a live-work-play environment designed around significant public spaces.

Linked to the innovation precinct are business hubs, green and smart industry precincts, dedicated living spaces, a transportation node, as well as retail and logistic precincts all integrated by a network of green spaces to connect its citizens and communities.

The design concept will be focussed on the core principles of liveability, community, culture, green technology and connectivity. It is a space which considers people first, with a strong focus on public spaces, movement and green design.

Above all, Stellenbosch Bridge will focus on quality of life, where emphasis is placed on enjoyment and living a healthy and active lifestyle. The design will prioritize walking and cycling, thus promoting the health of its citizens. Entertainment, food and culture will be designed as a central feature of public life. Stellenbosch Bridge will be a safe environment.

Refer to **Figure 8** for the Stellenbosch Bridge Master Development Plan. This plan demonstrates the vision for the larger Stellenbosch Bridge development.

4.2 THE PROPOSED DEVELOPMENT

The site is proposed to be developed as an industrial environment offering opportunities for manufacturing, distribution/warehousing and data centres linked to the innovation precinct. The integration of business uses into the precincts will also be encouraged to ensure better functionality and efficiency. The range and nature of uses will be managed through the basket of rights and a bulk register to be updated and submitted with each SDP application.

The proposed development will be accessed from the new proposed road link between Merchant Road and the Stellenbosch Bridge road. This road will ensure direct access to the site from the R44 to the west. The alignment and design of this road is in process at the Municipality and once approved, construction will commence.

It is important to note that Portion 1 will only be subdivided to accommodate services infrastructure. A sectional title scheme will be registered for both portions 1 and 2 and each light-industrial land unit will be registered as a separate section. Application is made at this stage for the rezoning and subdivision of the site to create the different development precincts, and for the approval of the total

Basket of Rights for the proposed development floor area of 90 500m². The Development Framework Plan demonstrates the integration of this development site (Precincts C & D) into the framework (refer to **Figure 9**).

An indicative internal development layout plan with private internal roads has been prepared and is attached as **Figure 10**. A separate application for precinct plan approval will be submitted at a later stage and will contain the final detail of the internal development layouts including internal road reserves, land units and open spaces. These will be followed by site development plan (SDP) approvals accompanied by landscaping plans and architectural design guideline confirmation.

The final design of the internal development layout will be motivated as part of the above-mentioned Precinct Plan and SDP approval applications, with the following principles to guide the layout design:

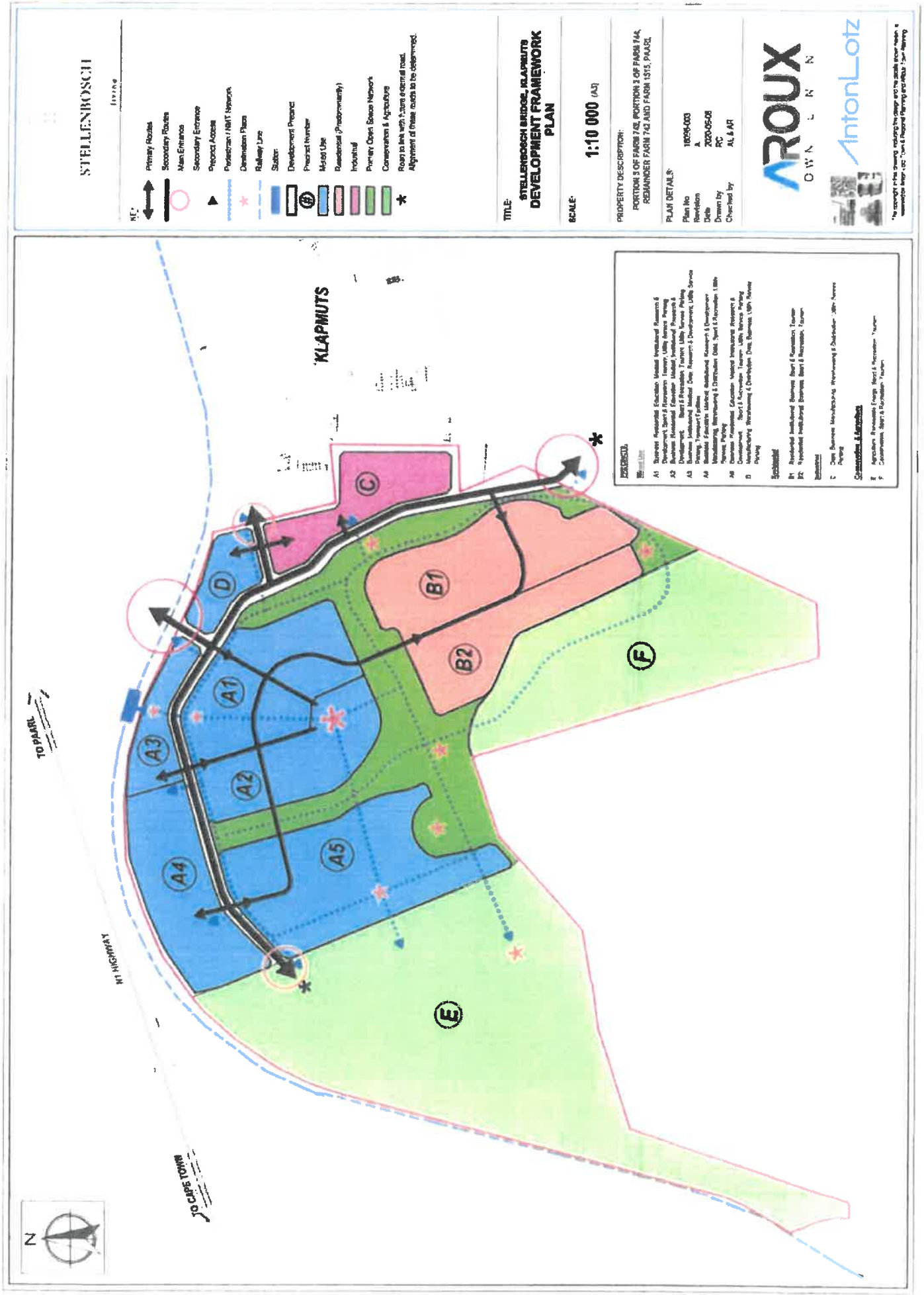
- The internal road layout will be subject to input from the project traffic engineer and will include consultation with the Municipal engineering department. This will include the overall internal road layout, road reserve widths and cross-section designs, intersections and site accesses.
- Sufficient provision will be made for on-site parking and loading facilities, in accordance with the Municipality's regulations and standards;
- The design will ensure that impact on the adjacent residential area is minimised. Landscaped buffer areas will be created between the residential area and the industrial properties. The industrial properties will also obtain access from internal access roads only, not from the existing road along the site's eastern boundary.
- Landscaping and open spaces will comprise a minimum of 10% of each site to ensure a high-quality and inviting urban space.
- Industrial development will be restricted to light-industrial activities such as clean manufacturing, commercial warehouses, distribution centres, show rooms and data centres. No noxious restricted industrial activity will be permitted.

Note that a Design Manual / Architectural Guideline has been prepared by the project architects for the proposed development and includes design guidelines pertaining to road cross-sections, street interfaces, architectural style, materials, etc. A copy of this document is attached as **Annexure G**.

4.3 THE PROPOSED SUBDIVISION

The proposed subdivision and zoning plan is attached as **Annexure H**. It is proposed to subdivide the property into six portions, namely:

- **Portion 1** (4,48ha): This portion will accommodate the first data centre for the development as well as other light-industrial uses. As mentioned, Portion 1 will be subdivided at a later stage to create separate electrical infrastructure erven and will also be consolidated with a portion of the


STELLENBOSCH
KEY:
Primary Routes
Secondary Routes
Main Entrance
Secondary Entrance
Precinct Access
Pedestrian / NMT Network
Destination Place
Railway Line
Station
Development Precinct
Precinct Number
Mixed Use
Residential (Predominantly)
Industrial
Primary Open Space Network
Conservation & Agriculture
Route to link with future external road. Alignment of these routes to be determined.
TITLE:
STELLENBOSCH BRIDGE, KLAPMUTS
DEVELOPMENT FRAMEWORK PLAN
SCALE:
1:10 000 (A3)
PROPERTY DESCRIPTION:
PORTION 3 OF FARM 742, PORTION 2 OF FARM 744, REMAINDER FARM 742 AND FARM 1515, PAARL
PLAN DETAILS:
Plan No 18035-003
Revision A
Date 2020-05-08
Drawn by RC
Checked by AL & AR
AROUX
OWNERS
AntonLotz
KLAPMUTS
TO PAARL
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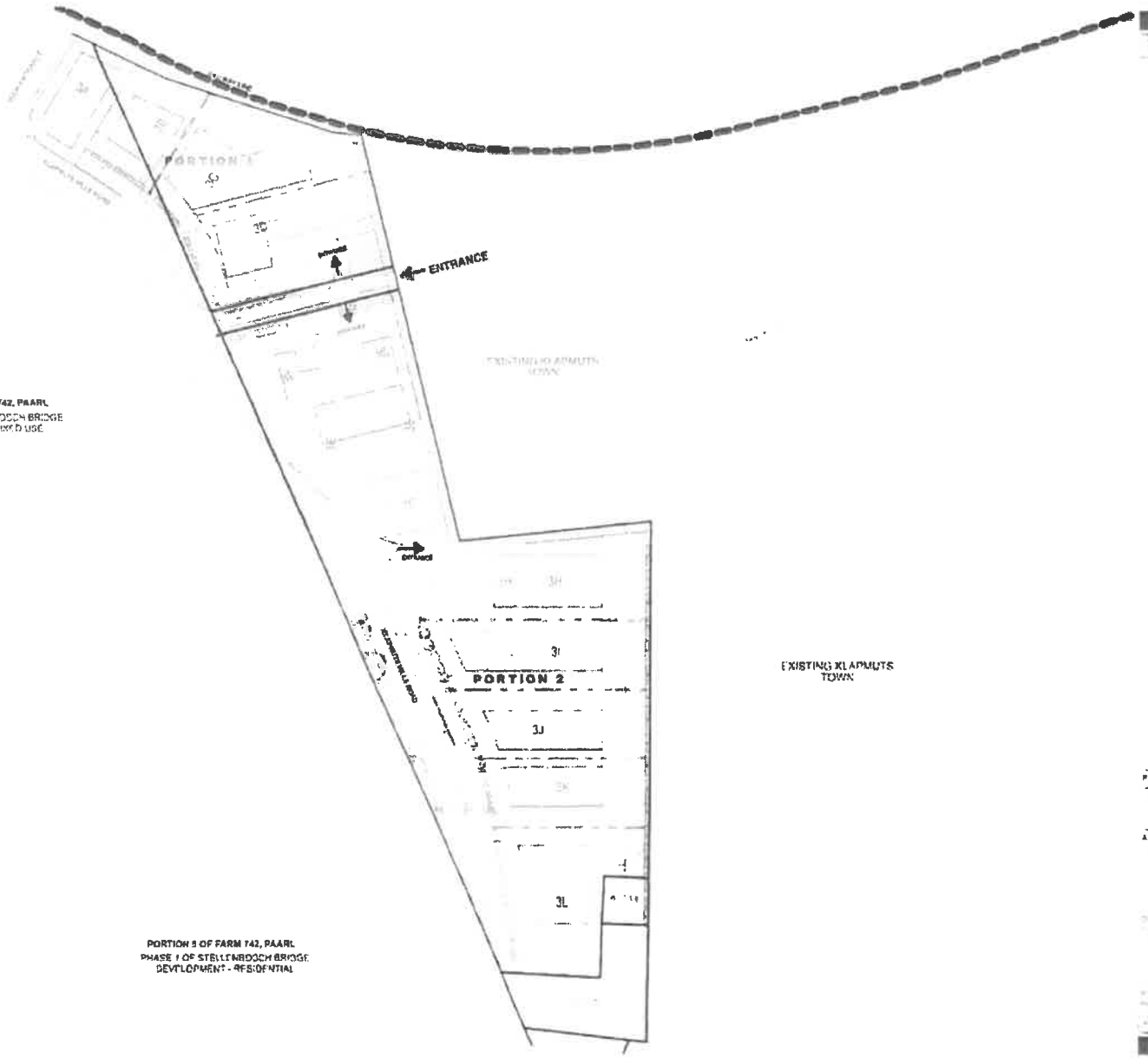
ENTRANCE
PORTION 2
EXISTING KLAPMUTS TOWN
PORTION 5 OF FARM 742, PAARL
PHASE 2 OF STELLENBOSCH BRIDGE DEVELOPMENT - MIXED USE
PORTION 5 OF FARM 742, PAARL
PHASE 1 OF STELLENBOSCH BRIDGE DEVELOPMENT - RESIDENTIAL
PROJECT
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adjacent Portion 5 of Farm 742, Paarl (to be subdivided as part of a separate land use application). The zoning for the consolidated portion will be confirmed at that stage, hence the proposed Subdivision Overlay Zone for this portion. The development of this portion will form part of a sectional-title scheme (when consolidated with the future adjacent portion).

- **Portions 2** (13,14ha): This portion will also accommodate future light-industrial developments. A sectional title scheme will be registered on this portion with each light-industrial land unit to be registered as a separate section. As no further subdivision of this portion is envisaged at this stage, the Industrial Zone is proposed for this portion.

- **Portion 3** (1,07ha): This portion accommodates the existing industrial and residential structures on the southern portion of the site, which will be retained. It is proposed to be zoned Industrial as it is deemed to most appropriate zone to accommodate the existing uses.

- **Portions 4 and 5** (5180m² and 18 256m² respectively): These portions provide for public road reserves. Portion 4 accommodates the 25m wide road reserve that traverses the site in an east-west direction. This road will provide access to the proposed development as well as the remainder of the Stellenbosch Bridge development to the west. Portion 5 provides for a portion of the main boulevard that will serve the larger development. Both portions will be zoned Public Roads and Parking Zone.

- **Portion 6** (964m²): As seen on the Stellenbosch Bridge master development plan, this portion will be consolidated with the residential precinct in future. It is therefore proposed that this portion be zoned Subdivisional Area Overlay Zone.

The proposed subdivision plan also makes provision for a 5,0m private services servitude which crosses the 25m wide access road reserve. This servitude is required to accommodate private service lines crossing the public road reserve.

5.0 MOTIVATION – NEED & DESIRABILITY

5.1 CONSISTENCY WITH PLANNING LEGISLATION (SPLUMA & LUPA)

Both the Spatial Planning and Land Use Management Act No.16 of 2013 (SPLUMA) and the Western Cape Land Use Planning Act No.3 of 2014 (LUPA) prescribe a set of land use planning principles to guide land use planning. The proposed amended development framework adheres to the land use principles relevant to development proposals as follows:

- ***Spatial Justice*** – The proposed development will ensure the improved utilization of land with economic opportunities to be created to the benefit of, in particular, the local community which is classified as a previously disadvantaged community. The proposed development will contribute significantly to employment creation within walking distance from the community.

- ***Spatial Sustainability*** – The proposed development will be spatially compact and resource-frugal. It will not contribute towards urban sprawl as it will form a natural extension of the Klapmuts village, being situated directly adjacent to the existing urban area. The proposed development will also not result in the loss of viable agricultural land or environmentally sensitive areas. It has been confirmed that the site is not conducive for agricultural activities and does not contain any sensitive environmental biodiversity, hence its inclusion inside the urban edge.

- ***Efficiency*** – The proposed development optimizes the use of existing resources and infrastructure within the approved urban edge. The development will be integrated within the existing urban area and will contribute towards a mix of land uses, in particular residential (existing) and light-industrial (proposed) uses.

- **Good administration** – The proposed development is aligned with the provincial and municipal spatial development frameworks and land use policies.

5.2 CONSISTENCY WITH SPATIAL DEVELOPMENT FRAMEWORKS AND MUNICIPAL POLICIES

5.2.1 Western Cape Provincial Spatial Development Framework

The Western Cape Spatial Development Framework (PSDF) was approved by the executive authority in 2014 and endorsed by the Provincial Cabinet to replace the previous PSDF.

The PSDF's policy framework covers Provincial spatial planning's three interrelated themes, namely (1) Sustainable use of the Western Cape's spatial assets, (2) Opening-up opportunities in the Provincial space-economy, and (3) Developing integrated and sustainable settlements.

Sustainable Use of Spatial Assets

The PSDF emphasises that the Province's biodiversity and agricultural resources should be protected as the unique scenic and cultural landscapes, which underpin the tourism economy, are being eroded and fragmented from inappropriate development.

The site is included within the Klapmuts urban edge and has been proclaimed by the Municipality as land suitable for development, being a natural extension of the existing urban area and confirmed as not being viable for agricultural activity (due largely to soil disturbance of previous mining activity).

The proposed development is designed to remain sensitive to the surrounding rural setting. Protected environmental elements in the surrounding area will not be affected.

Opening Up Opportunities in Space-economy

The PSDF's strategy of opening-up opportunities in the urban space-economy places emphasis on the upgrading of the built environment in dysfunctional townships so they became enabling living environments. Incentives should be put in place to attract economic activities close to dormitory residential areas, facilitate brownfields development (e.g. mixed-use development and densification in appropriate locations) and private sector involvement in the rental and gap housing markets.

The existing Klapmuts community has limited job creation opportunities outside of the agricultural sector and a development such as this will add significantly to job creation and business development opportunities across a variety of sectors.

Developing Integrated and Sustainable Settlements

The PSDF promotes smart growth of urban settlements by ensuring efficient use of land and infrastructure by containing urban sprawl and prioritising infill, intensification and redevelopment within settlements. It further encourages the increase of densities of settlements and dwelling units in new housing projects.

The proposed development responds positively to this strategy of the PSDF as it facilitates more efficient use of land that is currently underutilised and not contributing towards the local economy. As mentioned, the site is situated within the urban edge and the proposed development will ensure the natural expansion of the existing urban area. It also contributes towards mixed-use intensification and the provision of employment opportunities within walking distance from the existing community.

It is thus evident that the proposed development is consistent with the policies of the PSDF.

5.2.2 Stellenbosch Municipal Spatial Development Framework

The Stellenbosch Municipal Spatial Development Framework (2019 MSDF) was approved by the Council of the Stellenbosch Municipality on 2 August 2019.

The 2019 MSDF highlights the following key principles in working towards it vision of developing a "Valley of Opportunity and Innovation":

1) Maintain and grow the assets of the Stellenbosch Municipality's natural environment and farming areas.
2) Respect and grow our cultural heritage, the legacy of physical artefacts and intangible attributes of society inherited from past generations maintained in the present and preserved for the benefit of future generations.
3) Within developable areas – areas not set aside for limited development owing to its natural or cultural significance – allow future opportunity to build on existing infrastructure investment, on the opportunity inherent in these systems when reconfigured, augmented or expanded.
4) Clarify and respect the different roles and potentials of existing settlements.
5) Address human needs – for housing, infrastructure, and facilities – clearly in terms of the constraints and opportunity related to natural assets, cultural assets, infrastructure, and the role of settlements.
6) Pursue balanced communities.
7) Focus energy on a few catalytic areas that offer extensive opportunity and address present risk.

Klapmuts

Located as it is on the N1 transport corridor, which carries 93% of metropolitan bound freight traffic, Klapmuts is a potentially significant centre for economic activity and residence within the metropolitan region and Stellenbosch Municipality. To date, the settlement is characterized by residential use and limited commercial and work-related activity. Public sector resource constraints have prevented the infrastructure investment required to enable and unlock the full potential of the area for private sector economic development.

Significant progress has been made in planning for a "Innovation Precinct" or "Smart City" district west of but contiguous to Klapmuts south. This include a land agreement with the University of Stellenbosch to possibly establish university related activities in this area. The urban edge has been adjusted in recognition of the opportunity associated with this initiative.

The 2019 MSDF include the following proposals for Klapmuts:

- **Protective Actions:**
  - Maintain and improve the nature areas surrounding Klapmuts;
  - Work to increasingly connect and integrate nature areas, also with urban green areas, to form an integrated green web or framework across the municipal area;
  - Improve public continuity, access and space along the stream corridors;
  - Retain and improve the relationship between Klapmuts and surrounding agricultural land;
  - As a general principle, contain the footprint of Klapmuts as far as possible within the existing urban edge;
  - Retain the strong sense of transition between agriculture and human settlements at the entrances to the town;
  - Maintain the integrity of historically and culturally significant precincts and places.

- **Change Actions:**
  - Prioritise informal settlements for upgrading and service provision;
  - Pro-actively support higher density infill residential opportunity in Klapmuts South;
  - Retain and actively support mixed use redevelopment and building within the town centre and surrounding areas, comprising living space above active street fronts;
  - Proactively improve conditions for walking and NMT within Klapmuts;
  - Prioritise NMT connections between Klapmuts North and South;
  - Cluster community facilities together with commercial, transport, informal sector and other activities so as to maximise convenience, safety and socio-economic potential;
  - As far as possible, focus investment in parks, open space and social facilities accessible by public and NMT, in this way also increasing the surveillance of these facilities.

- **New Development Actions:**
  - Support the development of Farm 736/RE in Klapmuts North to unlock the development potential of Klapmuts (with emphasis on job creation);
  - Support the development of an "innovation precinct" or "smart city" in Klapmuts South;
  - Ensure that housing in Klapmuts South provides for a range of income groups;
  - Improve linkages between Klapmuts North and South, specifically along Groenfontein Road and a possible NMT crossing over the N1;
  - Explore the feasibility of changing / complementing the rail service along the Baden Powell Drive-Adam Tas-R304 corridor to a system providing a more frequent, flexible service better integrated into the urban realm. Alternatively, a regular bus service should be explored serving the same route.

The Stellenbosch Municipality, including the Planning & Economic Development and Infrastructure Services departments, have been consulted extensively during the development and design process of the Stellenbosch Bridge development concept and plans. These discussions are ongoing as the Municipality is an important stakeholder in the project. The development plan for the Stellenbosch

Bridge development, which includes the site, incorporates the proposals of the MSDF. The MSDF also includes the Innovation Precinct Concept Plan (See Figure 56 of MSDF) as reference for the future development of Klapmuts.

Figure 11 - Approved Stellenbosch Spatial Development Framework (2019) – Klapmuts Plan

This proposed development responds positively to the principles and proposals of the 2019 MSDF as it contributes to:

- Higher-density infill development within the approved Klapmuts urban edge;
- Higher-density mixed-use development, with an emphasis on integrating employment opportunities with existing and proposed residential areas;
- An emphasis on walking and NMT systems in the development layout;
- The integration and clustering of commercial opportunities, residential spaces, recreational facilities and transport systems;
- An improved relationship between the development and the surrounding residential areas;

5.3 AGRICULTURAL VIABILITY OF THE SITE

As highlighted in Section 3.5.3 of this report, previous soil studies undertaken for the site confirmed that the site has a low agricultural rating. This is largely as a result of surface and subsurface layers of the soils that have been removed in previous sand and gravel mining activities. This site has also been included within the Klapmuts urban edge for at least the last 18 years.

Further to the above, the site is wedged between existing urban settlement to the east and approved (although still undeveloped) development on Farm 742/5 to the west. This results in the site being isolated from surrounding agricultural land.

The Department of Agriculture is currently being consulted to determine whether approval for the subdivision of this property in terms of the Subdivision of Agricultural Land Act No.70 of 1970 is required. Clarification on this matter will be provided shortly. Approval was previously obtained from the Department of Agriculture, Forestry and Fisheries to permit subdivision of Farm 742/5 in terms of the Subdivision of Agricultural Land Act No.70 of 1970. Given that the site is situated between Farm 742/5 and the existing Klapmuts village, it can be reasonably expected that approval will be obtained from the Department of Agriculture, Forestry and Fisheries for the rezoning and subdivision of the site as well.

5.4 DESIRABILITY OF THE PROPOSED LAND USE

5.4.1 Socio-Economic Impact

The existing Klapmuts community has a high unemployment rate and the socio-economic status of most families is low. The local community is in dire need of economic invest and accessible employment creation.

The proposed light-industrial development will be a catalyst for local economic growth and will create employment opportunities for semi-skilled and unskilled labour. It will also create opportunities for local residents to be upskilled.

Economic and employment opportunities will also be created for the local community during the construction phase of the development.

5.4.2 Compatibility with Surrounding Uses

The site presents a good location for light-industrial development. Developments of this nature are not always conducive within the centre of urban areas, due to the industrial nature of the land uses and the large portions of land required for these facilities. The locality of the site allows the proposed

development on the outskirts of the existing Klapmuts village, while still being accessible to the entire local community. No restricted, noxious uses will be permitted, thereby ensuring a limited impact on the adjacent residential area.

The internal development layout (which will be submitted for approval at a later stage) will ensure that enough of a buffer area is created between the proposed development and the existing residential community to the east. Vehicular access to the development will be contained to the main road network. Light industrial vehicles will not be required to travel through existing residential settlements.

The Stellenbosch Bridge master plan ensures that enough of buffer area is created between the proposed light-industrial development and the proposed residential / mixed-use development to the west.

5.4.3 Impact on Safety, Health and Wellbeing of the Surrounding Community

As mentioned, the development will be designed to be sensitive to the existing surrounding community with wide landscaped buffer/parking areas to be provided between the proposed development and adjacent residential communities. It must be noted that the proposed land uses will be light-industrial only. No form of industrial activity that can be potentially hazardous to the surrounding community or environment will be permitted.

5.4.4 Impact on Heritage

The site is not located within a heritage conservation area and does not contain any heritage elements.

A Notice of Intent to Develop (NID) must be submitted to Heritage Western Cape (HWC) for a development on a site larger than 5000m² in size, as required by Section 38(1) of the National Heritage Resources Act. A NID will be submitted to HWC as part of the development NEMA basic assessment process.

5.4.5 Impact on the Biophysical Environment

Due to disturbance by human activity in the past, the site does not contain sensitive environmental elements and it is thus not anticipated that the proposed development will result in any negative environment impact. An environmental basic assessment is currently being conducted by Legacy Environmental Consulting, which include investigations by specialist consultants. The draft basic assessment report including all specialist reports will be provided when available. The proposed development will also be subject to environmental authorization from the Department of Environmental Affairs & Development Planning (DEA&DP).

5.4.6 Traffic Impact

A Traffic Impact Statement (TIS) has been prepared by the project traffic engineer (ICE Group) and is attached as **Annexure** I. The TIS makes the following conclusions:

- The proposed development has the potential to generate 461 peak hour trips (369 in, 92 out during the AM park hour and vice versa during the PM peak hour);
- To accommodate the background traffic, the following upgrades are considered necessary:
  - Dualling of the R44 north of its intersection with the Klapmuts-Simondium Road;
  - The provision of dedicated left-turn lanes on the northern and southern R44-approaches at the R44 / Stellengate Boulevard intersection;
- To accommodate the proposed development traffic, the following upgrades are considered necessary:
  - The provision of a dedicated left-turn lane along the Stellengate Boulevard approach at the R44 / Stellengate Boulevard intersection;
  - A roundabout at the Groenfontein Road / Merchant Street intersection.
- The detail on the internal layouts, on-site accommodation of vehicles, refuse removal, parking, etc will be addressed with the submission of site development plans;
- A taxi rank exists less than 300m from the site. It is suggested that the provision of public transport embayments be considered along the access road and / or at the accesses to the potential pockets within the proposed development;

5.5 IMPACT ON MUNICIPAL ENGINEERING SERVICES

A Civil Engineering Services Report has been prepared by the project civil engineer (WEC Consult) and is attached as **Annexure** J. The following in summary:

5.5.1 Water Supply

The site is not located immediately adjacent to existing bulk water reticulation infrastructure. In order for the development to connect to the bulk reticulation network two new bulk connector / link pipelines are required. The Municipality have allowed in their 20019 / 2020 budget to have these upgrades designed and constructed. It is expected that these bulk network upgrades will be completed prior to the completion of the construction stage of the proposed development.

5.5.2 Sewerage

The site is not located immediately adjacent to existing bulk sewer reticulation infrastructure. In order for the development to connect to the bulk reticulation network, additional bulk connector / link pipelines are required. No other upgrades to the bulk sewer distribution network is required. Sufficient sewer treatment capacity is available in the Klapmuts WWTW to accommodate the development.

5.5.3 Stormwater

Runoff provisions are made for cases of minor storms (1:2 year) by providing adequate stormwater infrastructure in the road reserve. Excess runoff during major storms will be conveyed along existing drainage paths and residential streets. Overland flow escape routes will be provided at all low points and other strategic locations. A detailed stormwater management plan will be compiled and submitted to the local authority, where more detailed information regarding the flood calculations and position and size of detention ponds will be provided.

There will be no upgrades required to the downstream water courses and piped stormwater systems. Stormwater detention ponds will be designed and constructed to ensure that the post development stormwater runoff does not increase from the pre-development scenario. No provision needs to be made for any future connection. Design of bulk stormwater infrastructure will make allowance for all future phases of this development falling within the same catchment area.

5.5.4 Electricity

Dihlase Consulting Engineers (Pty) Ltd are the appointed electrical engineers on the Stellenbosch Bridge and prepared an electrical services report for the proposed development. A copy of the report is attached as **Annexure K**. The following in summary:

- A supply of 6200kVA is recommended for the proposed development. The nearest point of connection to the existing external electrical network is the Eskom Klapmuts 132kv substation. This connection will be realized via an 11kV underground cable system fed from the Klapmuts substation to an 11kV switching station located on the Stellenbosch Bridge development site.

- An application has been submitted to Eskom for 14MVA of power, supplied at 11kV. The required 6.2MVA is included within the 14MVA application. The balance of the power application is provisioned for the 1577 residential units for which the development has also received approval.

- A Load Study is currently being developed by the electrical consultants which will devise an Energy Strategy for the development. At this stage it is anticipated that a new 132 / 11kV substation may be necessary.

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6.0 CONCLUSION & RECOMMENDATION

It has been demonstrated that the proposed light-industrial development will make a positive socio-economic contribution to Klapmuts, where unemployment levels are currently high. Forming part of the Stellenbosch Bridge development, it is in line with the Municipality's spatial vision for the area and will contribute to Klapmuts becoming a significant regional economic centre. We highlight the following in conclusion:

- The site (Remainder Portion 2 of Farm 744, Paarl) consists of the portion of land situated between the western edge of the existing Klapmuts urban area and the Klapmuts Hills site to the west (Portion 5 of Farm 742, Paarl). Despite its agricultural zoning, the site has been included within the Klapmuts urban edge for a number of years.

- The site forms part of the larger Stellenbosch Bridge development site and will function as an industrial / warehousing / data centre precinct on the eastern edge of the Stellenbosch Bridge development.

- Application is made to rezone the site to Subdivisional Area and to subdivide it into six portions, including portions for future industrial development, public roads, private open space and existing industrial buildings. Application is also made for the approval of a Basket of Rights for a total floor area of 90 500m².

- This application does not include a subdivision of the internal development layout. Sectional title schemes will be registered on Portions 1 and 2 respectively with each light-industrial land unit to be registered as a separate section. Precinct Plans will be submitted after approval of this application and will contain the detailed internal development layout. Separate applications will also be made for approval of the proposed site development plan (SDP's), landscaping plans and architectural design guidelines.

- The proposed development complies with the land use development principles contained in LUPA and SPLUMA and is also aligned with the Stellenbosch MSDF.

- Although zoned as Agriculture & Rural, the site is not deemed viable agricultural land. Soil studies confirmed that the site has a low agricultural rating. The site has been included in the Klapmuts urban edge for at least the last 18 years.

- The existing Klapmuts community has a high unemployment rate and the area is in dire need for economic investment and employment creation. The proposed industrial development will as part of the Stellenbosch Bridge Innovation Precinct be a catalyst for local economic growth.

- The locality of the site allows the proposed development on the outskirts of the existing Klapmuts village, while still being accessible to the larger local community. The development layout will ensure that a sufficient buffer area is created between the manufacturing, data centre and distribution uses and the existing residential uses to the east.

- The site does not contain any sensitive environmental or heritage elements. An environmental basic assessment is currently being conducted. The draft basic assessment report, which will include specialist reports, will be provided when available.

- A traffic impact statement (TIS) has been prepared by the project traffic engineers. Only minor road improvements are required to accommodate this development. The development of the Stellenbosch Bridge Innovation Precinct will result in the phasing in of several road upgrade projects that will also be of benefit to this development.

- Sufficient service capacity is available to accommodate the proposed development, which in part is linked to the installation of bulk service infrastructure which is being undertaken by the developer as part of the Stellenbosch Bridge development.

Anton Lotz Town & Regional Planning and ARoux Town Planning in association recommends that this application, for the rezoning of Remainder Portion 2 of Farm 744, Paarl from Agriculture & Rural Zone to Subdivision Area, for the subdivision of the property into six portions to accommodate a floor area of 90 500m^2, and consent of Business Premises be considered for approval.

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ANNEXURE D

COPY OF TITLE DEED / CONVEYANCER CERTIFICATE

CONVEYANCER'S CERTIFICATE

I, the undersigned,

WARREN HAMER

Conveyancer, practicing at Debra Gouws Hamer Attorneys, Durbanville do hereby certify as follows:

SAFAMCO ENTERPRISES PROPRIETARY LIMITED
Registration Number 1967/016867/07

Is the registered owner of: -

The Remainder of Portion 2 (a portion of portion1) of the Farm Wellevreden No. 744
Situate in the Stellenbosch Municipality
Administrative District Paarl,
Western Cape Province;

IN EXTENT 21,1299 (Twenty-One Comma One Two Nine Nine) Hectares;

HELD BY Deed of Transfer No. T 24204/1971

1 The property is subject to an unregistered 9-metre-wide pipeline servitude located on the South Western and Southern boundaries of the property, as depicted on Servitude Diagram S.G. No. 1854/2015, in favour of the municipality.

2 To my knowledge there are no servitudes or other restrictive conditions in the said Title or any prior Deed, which prohibits or affects the rezoning or developments of the property.

DATED AT DURBANVILLE ON 02 AUGUST 2019

WARREN HAMER
CONVEYANCER

INGEDIEN
24 -8- 1971
LODGED

24204

TRANSPORTAKTE

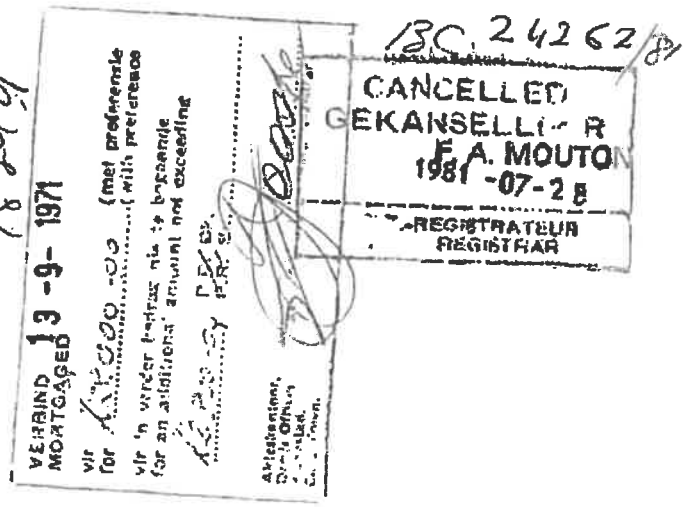
Ten gunste van

SAFAMCO ENTERPRISES (PROPRIETARY) LIMITED

24204

1971

JAN S. DE VILLIERS EN SEUN,
Prokureurs, Notarisse en Aktebesorgers,
Santam Gebou,
Burgstraat,
KAAPSTAD.



TRANSPORTAKTE

GRP/IJO.

Opgestel deur my

Aktebesorger.

JAN S. DE VILLIERS EN SEUN,
PROKUREURS,
KAAPSTAD.

HIERBY WORD BEKEND GEMAAK

DAT HERPHILUS STEYN
Aktebesorger voor my, Registrateur van Aktes in Kaapstad; verskyn het, behoorlik daartoe gemagtig deur 'n volmag geteken te STELLENBOSCH

op die 27ste dag

van NOVEMBER 19 70 en aan hom verleen deur

MERCIA DE KOCK,
voorheen Bredell, gebore Nel op 14 Augustus 1923,
getroud buite gemeenskap van goedere met Gerhardus
Petrus Christiaan de Kock (H.V.K. Nr. 325/1947)

(BLANKE GROEP)

EN / ....

EN GENOEMDE KOMPARANT HET VERKLAAR dat sy Lasgeefster op 16 Oktober 1970, deur Private Ooreenkoms, werklik en wettig verkoop het, en dat hy, die genoemde Komparant, in sy voormelde hoedanigheid hiermee in volkome en vrye eiendom sedeer en transporteer aan en ten gunste van

SAFAMCO ENTERPRISES (PROPRIETARY) LIMITED,
NR. 168/67 (S.W.A.)

(BLANKE GROEP)

Of dié se Regverkrygendes;

SEKER stuk grond, gelee in die Afdeling Paarl, synde

GEDEELTE 2 ('N GEDEELTE VAN GEDEELTE 1) VAN DIE PLAAS WELTEVREDEN NR. 744;

GETRANSPORTEER aan P. J. Bredell op 21 Junie 1947, Nr. 11366 en laastelik gehou deur die Komparant se Lasgeefster kragtens Transportakte Nr. 9799 gedateer 9 Julie 1963;

GROOT: Twee-en-Twintig desimaal een vier vier nul (22,1440) Hektaar;

SOOS MEER VOLLEDIG SAL BLYK uit die hieraangehegte Kaart Nr. 7611/70;

(a) ONDERHEWIG aan die voorwaardes waarna verwys word in Sertifikaat van Eenvormige Titel Nr. 11365 gedateer 21 Junie 1947;

(b) ONDERHEWIG VERDER aan die volgende voorbehoud ten gunste van die Staat genoem in gemelde Sertifikaat van Eenvormige Titel Nr. 11365 gedateer 21 Junie 1947, naamlik :-

"That the rights of the Proprietor shall not extend to any deposits of Ores, Metals, Minerals or Precious Stones, which may at any time be discovered on the land. The right of mining and searching for Ores, Metals, Minerals, or Precious Stones is reserved to the Government; and to any persons authorised by it, and compensation for any damages which may be sustained by the Proprietor from the working of mines or search for Ores, Metals, Minerals, or Precious Stones, shall be settled by mutual agreement, or failing such agreement, as three Appraisers, one to be appointed by each side and a third to be chosen by the two others, before proceeding to act, or any two of them, shall award."

(ten / .....

WESHALWE die Komparant afstand doen van al die regte en titel wat die bogenoemde

MERCIA DE KOCK,
voorheen Bredell, gebore Nel,
getroud soos voormeld;

voorheen op genoemde eiendom gehad het en gevolglik ook erken dat sy geheel en al van die besit daarvan onthef is en nie meer daarop geregtig is nie, en dat, kragtens hierdie Akte bogenoemde

SAFAMCO ENTERPRISES (PROPRIETARY) LIMITED,
NR. 168/67(S.W.A.)

Of die se Regverkrygendes;

tans en voortaan daarop geregtig is, ooreenkomstig plaaslike gebruik, behoudens die regte van die Staat, en ten slotte erken hy dat die koopsom

SEWENTIENDUISEND EN SEWE-EN-NEGENTIG RAND SEWENTIEN SENT

(R17,097-17) is;

TEN BEWYSE waarvan ek, die genoemde Registrateur van Aktes, tesame met die Komparant, q.q., hierdie Akte onderteken en met die Ampseël bekragtig het.

ALDUS GEDOEN en geteken op die Kantoor van die Registrateur van Aktes in Kaapstad, Provinsie van die Kaap die Goeie Hoop,

op die 12

dag van die maand September

in die jaar van onse Heer Eenduisend Negehonderd Een-en-Sewentig (1971).

(Aktebesorger)
q.q. sy Lasgewer/s

In my teenwoordigheid.

Registrateur van Aktes.

ASSISTANT

Geregistreer in die Erwe Register van Paarl

Folio 545A

Klerk.

N.H.D. 30887/D

NOTES CONTINUED ON SEPARATE SHEET WITHIN.
NOTAS VERVOLG OP AFSONDERLIKE VEL HIERBINNE.

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ANNEXURE E

STELLENBOSCH
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MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

DEPARTMENT OF DEVELOPMENT MANAGEMENT

LAND DEVELOPMENT APPLICATION:

PUBLIC PARTICIPATION PROCESS PORTFOLIO OF EVEIDENCE CHECKLIST AND DECLARATION

Erf/~~Erven~~ Farm no	744	Portion(s) if farm	2	Allotment Area	PAARL DIVISION
Owner/ Applicant	AROUX TOWN PLANNING			LU/#	LU / 11252
Notice Period	From:	20 AUGUST 2020		To:	21 SEPTEMBER 2020

CONFIRMATION OR DOCUMENTATION SUBMITTED	OWNER/APPLICANT YES	NO	N/A	ADMIN VERIFY
1. The declaration is duly signed	✓			
2. Applicant confirms that the public participation process was duly undertaken as instructed and attached to this POE.	✓			
3. Approval for notices were obtained prior to the public participation process and attached to this POE.	✓			
4. Municipality informed of the start date and closure date.	✓			
5. The advertisement period complies with the required 30 days (60 days for state entities).	✓			
6. If applicable, confirms that the site notice was placed and kept on site for the duration of the public participation process.			✓	
7. All communications (other than notices) in respect of the public participation process attached.	✓			
Proof of notices published				
8. If applicable, photo evidence to confirm site notice.	✓			
9. Wording of the advertisement accurate as approved & attached.	✓			
10. Proof of notices published (Publication date visible)	✓			
Proof of notices served				
11. Wording of notice accurate as approved and attached	✓			
12. Proof of all notices served to neighbouring properties attached	✓			
13. Proof of all notices to Interest & Community Groups attached	✓			
14. Proof of all notices to Govt. Dept's and Entities attached	✓			
Comments received				
15. All objections/comments received attached	✓			
16. All comments from internal Municipal Departments received (must also be attached to POE).	✓			
17. Applicant's comments on all the objections attached			✓	

Please complete and sign the following declaration on above:

DECLARATION

I, (full names & surname) REEVE CUPIDO

and ID #: 9612095123082 as the Applicant for the above application,

hereby confirms that the public participation process for the subject application was duly undertaken in accordance with the instruction for such process and the associated requirements stipulated in the Stellenbosch Municipal Land Use Planning Bylaw, and that the information contained in the above checklist and the accompanied information and documentation in the portfolio of evidence for the concluded public participation process, are accurate and complete:

Duly signed by the APPLICANT [signature] on this date/ month/ year

20 January 2021 at place OFFICE B1, LA CONCORDE BUILDING, 57 MAIN ROAD, PAARL

[signature] 20/01/2021

Signature Applicant Date

For office use only	
CHECKED BY ADMINISTRATIVE OFFICER	
CHECKED BY TOWN PLANNER	
DATE VERIFIED	

NOTES TO BE RECORDED:

SWORN AFFIDAVIT

I, the undersigned [Full Name (s) and Surname]: REEVE CUPIDO

Identity Number 9612095123082;

in my capacity as (owner or authorised person through power of attorney): AUTHORISED PERSON THROUGH POWER OF ATTORNEY (TOWN PLANNER)

do hereby declare under oath that:

1. The application for:
   REZONING, SUBDIVISION & CONSENT USE
   on Erf/ Farm Number: FARM 744/2, PAARL DIVISION

Was advertised in at least two of the official languages of the Province in the following newspaper(s)[i]:

(a) EIKESTAD NUUS (b)

From 20 AUGUST 2020 to 21 SEPTEMBER 2020

2. The public notices were prominently displayed and maintained in a legible condition for a continuous period of thirty (30) days from the date of the advertisement as indicated in Section (2) above[ii];
3. A notice containing the requirements as set out in the Stellenbosch Land Use Planning By-Law (2015), was posted per registered mail[iii] to all adjoining property owners/occupants/ interested and affected parties, during the same date of the advertising period as specified in Section (2) above;
4. Furthermore, a notice of the application was sent to the relevant Intergovernmental State Departments, per registered mail[iv], commencing the same date as in Section (2) above with an **additional 30 days (minimum 60 days)** for comment;
5. That all comments and objections to the application concerned were forwarded to Stellenbosch Municipality as contemplated in sections 1 – 4 above.

The Deponent acknowledges that he / she knows and understands the contents of this Affidavit.

Signature: ...

Signed at PAARL

On this 20 day of JAN 2021

At: ...

Commissioner of Oath's Stamp & Signature

SUID-AFRIKAANSE POLISIEDIENS
COMMUNITY SERVICE CENTRE
2021 -01- 20
PAARL
SOUTH AFRICAN POLICE SERVICE

[i] Must conform to Section 47 of the Stellenbosch Municipality Land Use Planning By-law (2015) [THE BY-LAW]– attach copy of advert (s)
[ii] Site Displays must conform to Section 48 (2)(a) of the By-law – attach photos
[iii] Attach original registration post slips and copies of letters that were distributed containing the required information as per Section 47 of the By-law
[iv] Attach original registration post slips and copies of letters that were distributed containing the required information as per Section 47 of the By-law

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ANNEXURE E

PUBLIC PARTICIPATION PORTFOLIO OF EVIDENCE

NOTICE OF LAND DEVELOPMENT APPLICATION IN THE STELLENBOSCH MUNICIPAL AREA

APPLICATION FOR REZONING, SUBDIVISION AND CONSENT USE: FARM 744/2, PAARL

Application Address: Merchant Street, Klapmuts

Applicant: Anton Lotz Town Planning and ARoux Town Planning in association, andre@arouxplanning.co.za

Owner: Safarico Enterprises (Pty) Ltd: 021 554 1086

Application Reference: LU/11252

Description of land development application:

- Application to rezone Remainder Portion 2 of Farm 744, Paarl from Agriculture & Rural Zone to Subdivisional Area Overlay Zone in terms of Section 15(2)(a) of the Stellenbosch Municipality: Land Use Planning By-law, 2015, for the following land uses:
  - 3 x portions zoned Industrial Zone
  - 2 x portions zoned Public Roads & Parking Zone
  - 1 x portion zoned Private Open Space Zone
  - 1 x portion zoned Utility Services Zone

To develop 90 500m2 of Industrial and Business floor area as a Basket of Rights.

- Application for subdivision of Remainder Portion 2 of Farm 744, Paarl into seven portions in terms of Section 15(2)(d) of the Stellenbosch Municipality: Land Use Planning By-law, 2015, to provide for the following:
  - Portion 1 (±4.4321ha) zoned Industrial Zone
  - Portion 2 (±13.1389ha) zoned Industrial Zone
  - Portion 3 (±1.0774ha) zoned Industrial Zone
  - Portion 4 & 5 (±2.34ha) zoned Public Roads & Parking Zone
  - Portion 6 (±964m2) zoned Private Open Space Zone
  - Portion 7 (±500m2) zoned Utility Services Zone
- Application for Consent of Council to allow Business Premises on Portions 1 and 2 of the proposed development in terms of Section 15(2)(o) of the Stellenbosch Municipality: Land Use Planning By-law, 2015.

Notice is hereby given in terms of the said Bylaw that the above-mentioned application has been submitted to the Stellenbosch Municipality for consideration. The application is available for inspection on the Planning Portal of the Stellenbosch Municipal Website for the duration of the public participation process at the following address: https://www.stellenbosch.gov.za/planning/documents/planning-notices/land-use-applications-advertisements. If the website or documents cannot be accessed, an electronic copy of the application can be requested from the Applicant.

Written comments, which must include the reference to the application, the name, contact details and physical address of the person to submit the comments, the reasons for the comments, and the interest of the person in the application, may be submitted in terms of Section 50 of the said Bylaw to the Applicant by electronic mail as follows: André Roux, andre@arouxplanning.co.za

The comments must be submitted within 30 days from the date of this notice to be received on or before the closing date of 21 September 2020.

For any enquiries on the Application or the above requirements, or if you are unable to write and /or submit your comments as provided for, you may contact the Applicant for assistance at the e-mail address provided or telephonically at 083 448 0376 during normal office hours.

KENNISGEWING VAN GRONDONTWIKKELINGSAANSOEK IN DIE STELLENBOSCH MUNISIPALE AREA

AANSOEK VIR HERSONERING, ONDERVERDELING EN TOESTEMMINGSGEBRUIK: PLAAS 744/2 PAARL

Adres van eiendom: Merchant Street, Klapmuts

Aansoeker: Anton Lotz Stadsbeplanning en ARoux Stadsbeplanning in assosiasie, andre@arouxplanning.co.za

Eienaar: Safarico Enterprises (Pty) Ltd: 021 554 1086

Aansoek Verwysing: LU/11252

Beskrywing van grondontwikkelingsaansoek:

- Aansoek om die hersonering van Restant Gedeelte 2 van Plaas 744, Paarl, van Landbou en Landelike Sone na Onderverdelingsgebied Oorlegsone ingevolge Artikel 15(2)(a) van die Munisipaliteit Stellenbosch: Verordening op Grondgebruikbeplanning, 2015:
  - 3 x gedeeltes gesoneer Nywerheidsone
  - 2 x gedeeltes gesoneer Publieke Pad & Parkeringsone
  - 1 x gedeelte gesoneer as Privaat Oop Ruimtesone
  - 1 x gedeelte gesoneer as Nuts Dienstesone
- Om 90 500m2 nywerheids- en sakevloeroppervlakte te ontwikkel.
- Aansoek om onderverdeling van Restant Gedeelte 2 van Plaas 744, Paarl in sewe gedeeltes ingevolge Artikel 15(2)(d) van die Munisipaliteit Stellenbosch: Verordening op Grondgebruikbeplanning, 2015, om voorsiening te maak vir:
  - Gedeelte 1 (±4.4321ha) gesoneer as Nywerheidsone
  - Gedeelte 2 (±13.1389ha) gesoneer as Nywerheidsone
  - Gedeelte 3 (±1.0774ha) gesoneer as Nywerheidsone
  - Gedeelte 4 & 5 (±2.34ha) gesoneer as Publieke Pad & Parkeringsone
  - Gedeelte 6 (±964m2) gesoneer as Privaat Oop Ruimtesone
  - Gedeelte 7 (±500m2) gesoneer as Nuts Dienstesone
- Aansoek om toestemming van die Raad om besigheidspersele in Gedeeltes 1 en 2 toe te laat ingevolge Artikel 15(2)(o) van die Munisipaliteit Stellenbosch: Verordening op Grondgebruikbeplanning, 2015.

Kennis word hiermee gegee in terme van die genoemde Verordeninge dat bovermelde aansoek by die Stellenbosch Munisipaliteit ingedien is vir oorweging. Die aansoek is beskikbaar vir insae op die Beplannings Portaal van die Stellenbosch Munisipaliteit se Webtuiste vir die tydsduur van die publieke deelname proses by die volgende adres: https://www.stellenbosch.gov.za/planning/documents/planning-notices/land-use-applications-advertisements. Indien die webtuiste of tersaaklike dokumente nie toeganklik is nie, kan die Aansoeker versoek word om 'n elektroniese kopie beskikbaar te stel.

Skriftelike kommentaar, wat besonderhede ten opsigte van die verwysings nommer van die aansoek, die name, fisiese adres en kontak besonderhede van die persoon wat die kommentaar lewer, die redes vir die kommentaar, en die belang van die persoon wat die kommentaar lewer in die aansoek, kan ingedien word in terme van Artikel 50 van genoemde Verordeninge aan die Aansoeker by wyse van elektroniese pos as volg: André Roux, andre@arouxplanning.co.za

Die kommentaar moet binne 30 dae vanaf die datum van hierdie kennisgewing gestuur word en moet ontvang word voor of op die laaste dag van die sluitingsdatum van 21 September 2020.

Indien daar enige navrae op die aansoek of bovermelde vereistes vir die lewer van kommentaar is, of indien dit nie moontlik is om geskrewe kommentaar te lewer of die kommentaar op die wyse te lewer soos voorsiening gemaak is nie, kan die Aansoeker geskakel word vir bystand by die vermelde elektroniese pos adres of telefonies by 083 448 0376 gedurende normale kantoor ure.

Charlene Williams

From: Nicole Katts
Sent: 20 August 2020 08:38 AM
To: Emily Fredericks; Charlene Williams
Subject: RE: FARM 744/2 PAARL DIVISION: APPLICATION FOR REZONING, SUBDIVISION AND TEMPORARY DEPARTURE (LU/11252): DEPARTMENTAL COMMENT - WARD COUNCILLOR (COMMENTS BY EMAIL)

Dear Councillor Fredericks

I trust that you are well.

Thank you for your comment

Kind regards · Vriendelike Groete
Nicole Katts
Administrative Officer
Land Use Management
Planning & Economic Development
T +27 21 808 [illegible]
43 Andringa Str, Eikestad Mall, 3 Floor
www.stellenbosch.gov.za

From: Emily Fredericks
Sent: Wednesday, 19 August 2020 10:09
To: Nicole Katts
Subject: RE: FARM 744/2 PAARL DIVISION: APPLICATION FOR REZONING, SUBDIVISION AND TEMPORARY DEPARTURE (LU/11252): DEPARTMENTAL COMMENT - WARD COUNCILLOR (COMMENTS BY EMAIL)

Good day Ms Katts

As long as the development support the SPLUMA and LUPA principles and are in line with the Klapmuts and Stellenbosch SDF Spatial Development Framework
I don't have any objections

From Ward Councillor
Emily Fredericks
Ward 18
Klapmuts

I'm using Mimecast to share large files with you. Please see the attached instructions.

Good day;

Attached please find the relevant documentation regarding the abovementioned application. Kindly furnish me with your comment by email, if any, in order to enable me to submit the application to the decision making authority for consideration.

ERF / FARM NUMBER & APPLICATION NUMBER: Farm 744/2, Paarl Division (Lu/11252)

DESCRIPTION OF THE PROPOSAL:

Application to Rezone Remainder of Portion 2 of Farm 744, Paarl from Agriculture & Rural Zone to Subdivisional Area Overlay Zone to develop the following land uses:
Portion 1 for Industrial Zone (±4.4321ha)
Portion 2 for Industrial Zone (±13.1389ha)
Portion 3 for Industrial Zone (±1.0774ha²)
Portion 4 & 5 for Public Road purposes (±2.34ha)
Portion 6 for Private Open Space (±0.0964ha)
Portion 7 for Utility Services (±0.05ha)
To develop 90 500m² of Industrial and Business floor area as a Basket of Rights.

Application to subdivide Remainder of Portion 2 of Farm 744, Paarl, into Seven portions, to provide for the following:
Portion 1 (±4.4321ha) for Industrial
Portion 2 (±13.1389ha) for Industrial Zone
Portion 3 (±1.0774ha²) for Industrial Zone
Portion 4 & 5 (±2.34ha) for Public Road purposes
Portion 6 (±0.0964ha) for Private Open Space
Portion 7 (±0.05ha) for Utility Services

Application for the Consent of Council to allow Business Premises on Portions 1 and 2 of the proposed development.

APPLICANT: ARoux Town Planning

PROPERTY ADDRESS: Main Road, Paarl Division

Please note that your comments must be submitted on or before **07 September 2020** from the date of this email.

Kind regards / Vriendelike Groete
Nicole Katts
Administrative Officer
Land Use Management
Planning & Economic Development
T +27 21 808
43 Andringa Str, Eikestad Mall, 3 Floor
www.stellenbosch.gov.za

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ANNEXURE F

DRAFT STELLENBOSCH BRIDGE DEVELOPMENT FRAMEWORK


Detailed Masterplan with Aerial
A1
Proposal
J1307

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ANNEXURE G

DRAFT STELLENBOSCH BRIDGE MASTER PLAN

STELLENBOSCH BRIDGE

DEVELOPMENT FRAMEWORK

FARMS 742/5, REM 742, 744/2, PAARL RD & 1515, STELLENBOSCH RD

SEPTEMBER 2020

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EXECUTIVE SUMMARY

INTRODUCTION

Stellenbosch Bridge is a visionary private sector-led project that combines the leading-edge concepts of innovation district and smart city to create a knowledge economy-based focus area within a mixed-use, environmentally conscious, people-centred development. The intent is to create a vibrant live-work-play-innovate development. To achieve this requires a strong urban design concept, a clear development framework and active management within which investment, economic development and communities can flourish.

International precedent has shown that innovation-driven, smart environments need dynamic land use management to facilitate swift reaction to rapidly changing circumstances. In addition, the post-COVID world will be an irrevocably altered urban landscape of changes in land use demand and urban management that cannot be anticipated or planned for. To position this development to survive and thrive in these unpredictable circumstances, its planning and implementation need to deal with rapid change thereby being Future Proactive. It requires a strategy that allows flexibility but within clear controls. The basis of achieving a Future Proactive development is the F.I.R.S.T. Principles:

- **Flexibility:** Capability to adapt to changing circumstances by planning for it proactively.
- **Innovation**: Being open to and able to respond to new thinking in a rapidly changing environment.
- **Resilience:** Ability to prepare for, recover from, and absorb change.
- **Sustainability:** Ability to maintain a balance between economic, social and environmental demands.
- **Thresholds**: Identification of clear limits at which action needs to be taken or investments made to maintain the balance of the development and its environment.

The interlinked development control mechanisms to be used to ensure that the project's implementation is dynamic and responsive to changing opportunities include the phased process of approval provided by the Package of Plans process; use of the Mixed-use Zone for the Innovation Precinct, a Floor Area Float to allow flexibility to address future demand changes; Sustainable Precinct Certification to help monitor attainment of sustainability goals; management of design adherence through the Design Review Process; use of Services Thresholds to monitor land use implementation within the overall basket allowing flexibility in the phasing, composition, and location thereof; and using a Development Register and traffic and services statements for implementation applications to confirm availability of rights.

VISION, PRINCIPLES AND OBJECTIVES

Vision for Stellenbosch Bridge:

A dynamic, innovative, collaborative and sustainable hub, building bridges locally and globally.'

The development will be based on the following development principles:

- **Sustainability**: Balancing environmental, social, and economic needs by protecting the environment; ensuring resource management; pursuing biophilic design; enhancing circular resource flows; and integrating sustainable designs.
- **Human Scale**: A people-centric urban form focussed on walkability and promoting a healthy and active lifestyle.
- **Conviviality:** A design that fosters social interaction in a range of safe public spaces.
- **Efficiency**: A compact, high-density urban form offering efficient urban systems and balancing resource consumption and development outcomes.
- **Innovation**: Pioneering the incorporation of ICT into all development aspects and the fusion of design thinking with technological advancements.
- **Opportunity**: Building a place for personal, social, and economic opportunity by creating a range of locations, services, facilities and information that provide opportunity for employment, economic engagement, education, and recreation.
- **Integration:** Integrating into the larger environmental, socio-economic and cultural-geographic system, essential for its sustainability.
- **Social Justice:** A catalyst for the improvement of the social well-being and prosperity of the Klapmuts communities and seeking to expand the benefit of its innovation and economic opportunity to uplift people within its zones of influence.
- **Integrity:** Being implemented and managed by means of accountable, transparent, and competent decision-making.

The development objectives for the project:

- **Environmental Sustainability**: Achieving Sustainable Precinct Certification (First 5-star GBCSA rating in Africa).
- **Entrepreneurial Ecosystem:** An economically connected mixed-use development linking various sectors in an integrated business environment.
- **Spatial Innovation:** A multi-faceted, human-scaled, robust development that can rapidly respond to change, allowing the incorporation of new ideas and concepts.
- **Connecting to Global and Local Contexts**: Build connections within the global innovation community whilst integrating physically, economically and socially with the Klapmuts town and the wider region.
- **Architectural Design to Acknowledge Unique Cape Heritage**: Integrating Cape heritage elements with modern and innovative design.
- **Integrated and Connected Communities**: Facilitating social interaction, building integration and connection between communities and people.
- **Socially Vibrant, Safe and Secure Communities**: A safe and secure environment for residents and visitors, making them welcome in socially vibrant, active, healthy, and integrated communities.
- **Use of Innovative Technologies**: Innovation will be encouraged and integrated in all levels of planning and implementation.
- **Active Precinct and Resource Management**: Hands-on management of the urban environment, resources, services and technology.

DEVELOPMENT COMPONENTS AND ELEMENTS

Stellenbosch Bridge is made up of development and open space precincts. The four development precincts are integrated through a central open space system. The main components together with planning and design elements of this development are:

- **Innovation Precinct:** A well-managed, dynamic and creative mixed-use environment where innovative design, a quality public space system, and a complete innovation ecosystem can help knowledge economy entrepreneurs, academics and corporates connect to develop and incubate new products and services for fast-growing and promising industry clusters that are central to the future expansion of the Western Cape and South African knowledge economy (use of knowledge and education that leads to technical and scientific advance), including agriculture, clean technology; bio-technology; information and communication technology (ICT); and sports and gaming (Klapmuts with Stellenbosch Bridge as its core could, over time, grow into an Innovation District).
- **Research and development** (R&D): An important component of a successful innovation district is its capability for R&D through which prototype products and services are researched, designed, tested, produced. and assembled. Having the University of Stellenbosch as a key partner provides for university-industry collaboration, research capability and commercialization expertise (through Innovus) to attract investment for innovation and entrepreneurial activity.
- **Incubator:** Within the Innovation Precinct a facility offering a range of space, facilities and services to assist entrepreneurs to create and launch their businesses.
- **Smart City:** A smart city is a spatial or urban ecosystem that uses ICT and Internet to improve its efficiency, governance and functioning and is often intricately linked to innovation district development. Implementation across eight functional areas will be targeted including mobility, infrastructure, energy, buildings, technology, governance, citizens, and healthcare. Smart technology allows real-time monitoring of these systems to better inform strategic decision-making.
- **High-Density Residential:** Housing is an essential component of an Innovation District. An assortment of residential opportunities will cater for the full spectrum of family structures offering choice and diversity. The mixed-use Innovation Precinct makes provision for the integration of residential uses and a high-density Residential Precinct will provide a high-quality living environment.
- **Lights Industrial:** Innovation districts incorporate clusters of industry that service the innovation industry and contribute to a balanced urban ecosystem. The Industrial Precinct provides for logistics and distribution and smart manufacturing (computer-integrated manufacturing). Components of smart manufacturing such as 3D printing can easily integrate into the mixed-use Innovation Precinct.
- **Data Centre:** An important component of an innovation precinct/smart city is a data centre - a facility for a large group of networked computer servers used for the remote storage, processing, or distribution of large amounts of data.
- **Integrated Open Space System:** The integration of a central green network through which existing tree line/clumps and dams are retained and enhanced, with urban spaces, quality street space and destination places will enhance the liveability of the development, making it easier to walk, bike, and use other NMT to work, live and socialize. Walkability is central to the success of the development.
- **Road System:** The development is served by a primary public road system linking the development to Klapmuts and the regional road network, and a secondary road network of private roads providing internal circulation and access.
- **Agricultural Remainder:** The land area outside the urban edge will be used for agricultural research related to the agriculture innovation cluster, renewable energy provision, sport and recreation, and tourism.

- **Conservation:** The natural vegetation area (Boland Granite, Swartland Renosterveld and/or Swartland Alluvium Fynbos) located on the ridgeline south of the development area is protected and links the development to Klapmutskop.
- **Mixed-use Environment:** Knowledge-based economic activity needs to be integrated into a dynamic mixed-use urban environment. The live and work/innovate components are integrated with the business, recreational, and social facilities which will contribute to the liveability of the development. This integration will happen both vertically (within buildings) and horizontally (with street blocks and precincts). The innovation precinct is designed on the principle of flexible urbanism – buildings and spaces that adapt to evolving needs without compromising the urban design vision and under coordinated management.
- **Environmentally Conscious Development:** As an innovation-driven smart city it will lead thinking and implement innovations and technology that contribute to 'Innovating to Zero' (a journey towards a more sustainable future). The use of renewable energy; design and engineering solutions that reduce resource demand; circular resource economy; biophilic and sustainable designs of spaces, buildings and services; waste reduction; integration of NMT; convenient pedestrian routes; and social innovation are some of the measures to be implemented.
- **People-Centred & Quality of Place:** The development is underpinned by a focus on Quality of Life, where emphasis is placed on enjoyment and living a healthy and active lifestyle. It includes a Design for Community - a layout that fosters inclusion, equal opportunity and choice; and a Place for Self – space for personal health and wellness (mind, body, soul).

DEVELOPMENT FRAMEWORK PLAN

The Development Framework Plan sets out the basic physical structure for the development of the site in accordance with the urban design concept. The following structuring elements will guide its implementation:

ACCESS POINTS

The development will be accessed by means of four new vehicular/pedestrian accesses from the R101 (Old Paarl Road), R44 (Stellenbosch Road), DR 1090 (Elsenburg Road) and Merchant Street as well as a new railway station:

- The primary access is a northerly link to the R101 via an underpass under the railway line. This access will link the development to the N1 via the existing R44 interchange as well as a new interchange at the Groenfontein Road location.
- Three secondary accesses will be phased (the regional road network plan will determine the priority and timing):
  - Merchant Street link: This access will have an integration function between the development and Klapmuts, providing for lower-order distribution only.
  - R44 Access: A road link to the R44 will provide access from the south-east.
  - DR 1090 Access: A road link to the Elsenburg Road will provide access from the west.
- Stellenbosch Bridge Station – A new station serving the development is proposed between the Klapmuts and Muldersvlei Stations.

MOVEMENT ROUTES

Three levels of movement form part of the framework:

- The primary movement system consists of the main north-south route (R101 to R44) as well as the western (Elsenburg Road) and eastern (Merchant Street) link roads that integrate the four road access points and links the development to the broader area.
- The secondary movement system is made up of a network of private roads and accesses that provides internal access and circulation to the precincts.
- The third level of movement involves the Pedestrian/NMT system which will be catered for along the primary and secondary routes as well as the open space system which will ensure a walkable environment and links the development to the broader area.

OPEN SPACE SYSTEM

The open space system consists of the following:

- Primary Open Space System - the linear network of green spaces incorporating the existing tree lines, tree clumps and enhanced water features within the urban edge. The experience of this space will be enhanced through landscaping and the system will be linked into a wider green network including a link to Klapmutskop.
- Urban Space System - the road spaces and public squares internal to the development precincts will be designed to give pedestrians equal importance of movement and to facilitate social interaction and economic opportunity.
- Destination Places - the central square, public squares, and open space destination places such as water features, eventing facilities and the labyrinth. These places form focal points in the open space system and facilitate use, pedestrian movement, economic opportunity, and social interaction.

PRECINCTS AND LAND USE

The site is divided into four development precincts (with sub-precincts to facilitate phasing) and two open space precincts. Each precinct has been allocated a primary use category being 1) Innovation, 2) Residential, 3) Industrial, 4) Data Centre, 5) Agricultural Research or 6) Conservation and a suite of land use allocations as based on the design concept:

- **Precinct A** (Innovation): The innovation precinct (Sub-Precincts A1 – A5) integrates all aspects of a live-work-play-innovate environment around a network of public spaces. The proposed zoning is Mixed-use Zone.
  - Precinct A1 – Business; Residential; Education; Medical; Institutional; R&D; Smart Manufacturing; Sports, Gaming and Recreation; Tourism; Utility Service; Parking; Private Open Space; Private Road.
  - Precinct A2 – Business; Residential; Education; Medical; Institutional; R&D; Smart Manufacturing; Sports, Gaming and Recreation; Tourism; Utility Service; Parking; Private Open Space; Private Road.
  - Precinct A3 – Business; Institutional; Medical; Data Centre; R&D; Smart Manufacturing; Utility Service; Parking; Transport Facilities; Private Open Space; Private Road.
  - Precinct A4 – Business; Education; Medical; Institutional; R&D; Smart Manufacturing; Warehousing and Distribution; Data Centre; Sports, Gaming and Recreation; Utility Service; Parking; Private Open Space; Private Road.
  - Precinct A5 – Business; Residential; Education; Medical; Institutional; Research and Development; Smart Manufacturing; Sports, Gaming and Recreation; Tourism; Utility Service; Parking; Private Open Space; Private Road.
- **Precinct B** (Residential): The high-density residential precinct (Sub-precincts B1 and B2) incorporates complimentary social and business uses and multi-functional open spaces areas to create a high-quality living environment. The proposed zoning is Multi-unit Residential Zone.
  - Precinct B1 – Residential; Institutional; Business; Sport and Recreation; Tourism; Private Open Space; Private Road.
  - Precinct B2 – Residential; Institutional; Business; Sport and Recreation; Tourism; Private Open Space; Private Road.
- **Precinct C** (Industrial): The green and smart industrial precinct. The proposed zoning is Industrial Zone: Data Centre; Business; Smart Manufacturing; Warehousing, Logistics and Distribution; Utility Service; Parking; Private Open Space; Private Road.
- **Precinct D** (Data Centre): The precinct accommodating the main data centre. The proposed zoning is Industrial Zone: Data Centre; Smart Manufacturing; Business; Utility Service; Parking; Private Open Space; Private Road.
- **Precinct E** (Agricultural Research): The land area west of the urban edge. The zoning is Agriculture and Rural Zone: Agricultural Research; Renewable Energy; Sports and Recreation; Tourism
- **Precinct F** (Conservation): The natural vegetation area south of the development area. The zoning is Agriculture and Rural Zone: Conservation; Sports and Recreation; Tourism; Environmental Education.

BASKET OF RIGHTS

The land use rights to achieve the mixed-use development vision is summarised in Table 1:

Table 1: Basket of Rights

Precincts	Residential	Business	Industrial	Institutional	Other
	Dwelling units du	Floor Area - m²	Floor Area - m²	Floor Area - m²	Floor Area - m²
Precinct A	2 500	243 000	43 000	144 000	13 500
A1		500		43	3
A2				38	
A3		000	12		
A4					
A5	450		-		
Precinct B	2 500	-	-	-	-
B1					-
B2					
Precinct C	-	-	75 500	-	-
Precinct D	-	10 000	15 000	-	-
Floating	1 000	35 000	60 000	24 000	17 000
Sub-Total	**6 000**	**288 000**	**193 500**	**168 000**	**30 500**
TOTAL	**6 000**				**680 000**

The Basket of Rights will be applied for incrementally according to the application schedule agreed with the Municipality. These rights will be allocated per precinct and sub-precinct and part thereof will be used as floating floor area. Once the final land use approval is granted for the areas recently incorporated into the Klapmuts urban edge the various subdivisions will be consolidated to create four development erven that will each be registered as a sectional title scheme. No further subdivision will be required. It is the intention that following consolidation the land use rights allocated to the sub-precincts of A and B can be utilised throughout the consolidated erven A & B respectively, as guided by the approved Precinct Plans, land use allocations and urban design guidelines.

The floating floor area component will be available to cater for changes in land use demand or land use categories that were not anticipated in the base development scenario and that cannot be accommodated within the allocated precinct floor area.

The implementation of services will be based on the services thresholds identified by the services reports and set out in the Service Level Agreement. Within these thresholds the roll-out of development rights will be directed and allocated to the various precincts and sub-precincts in the following anticipated order:

- Precincts A1, B1, C and D
- Precincts A3 and B2
- Precincts A2, A4 and A5

The urban design framework will play an essential role in the timing and location of these rights within the precincts as the establishment of the spatial structure and key open space elements such as the central square and pedestrian boulevard are critical to the success of the project.

It is based on a clear understanding of the upper limit of service and infrastructure demands for the total development's land use scenario (base scenario) that the services thresholds can be mapped out. Various land use implementation scenarios can play out without unnecessary delays as the development register and services statements are used to monitor land use implementation within the overall basket, allowing flexibility in the phasing, composition, and location thereof.

The efficiency of the development is improved as infrastructure is implemented as and when required and the approach allows flexibility to adjust land use combinations according to market demand without negatively impacting the broader area.

IMPACT OF THE DEVELOPMENT

The Stellenbosch Bridge development will have a significant socio-economic impact on Klapmuts, the region and the Western Cape. It will be a major catalyst in achieving the Stellenbosch Municipality's vision to "be a valley of opportunity and innovation" and to attract investment, stimulate economic growth and create employment.

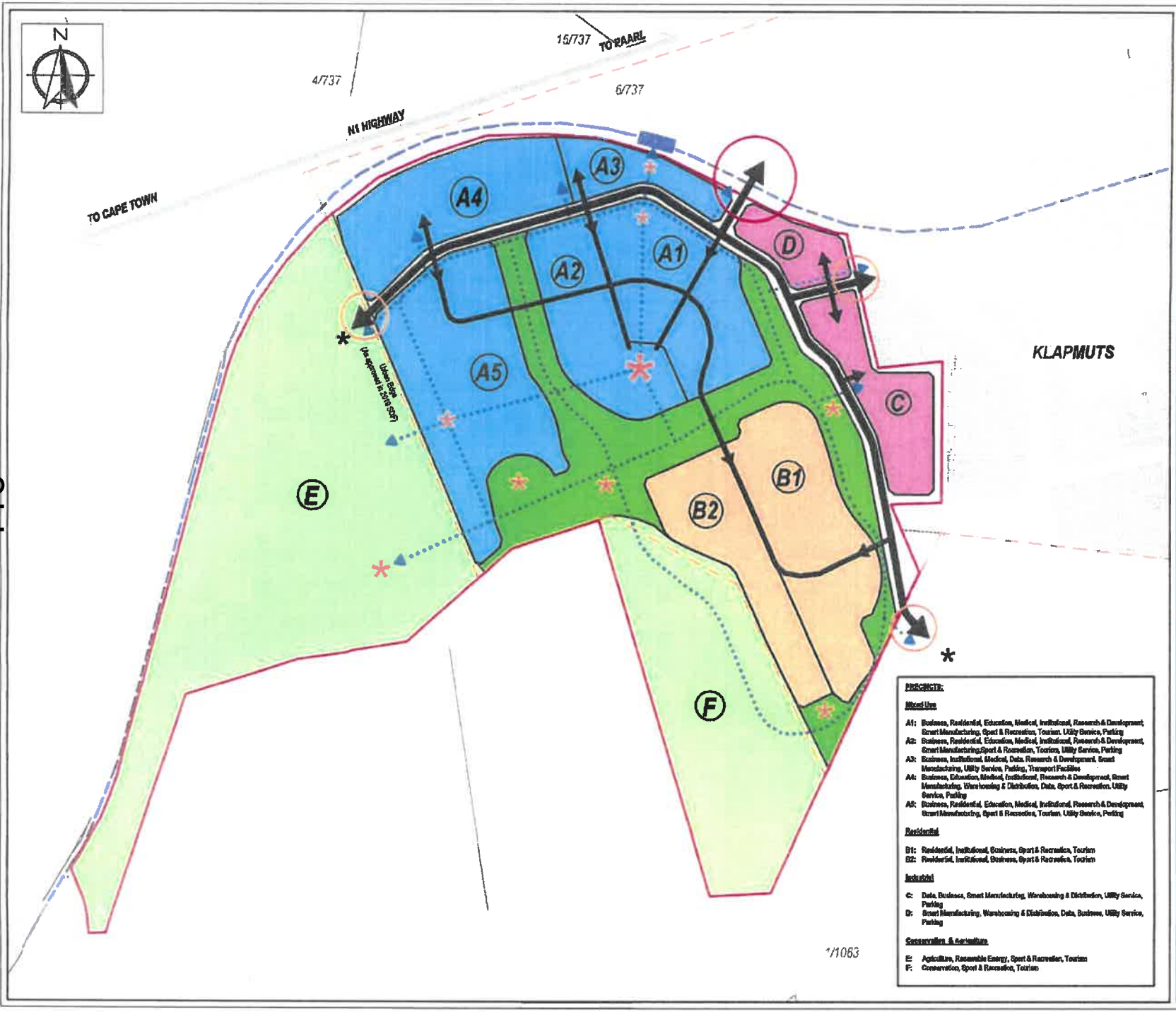
By becoming a world-renowned innovation and smart city development it will stimulate growth and job-creation in an array of sectors. The innovation precinct will initially lead with the creation of highly skilled jobs, but as the mixed-use development grows, the jobs in other fields will stimulate economic prosperity and social well-being of the communities of Klapmuts. The physical and socio-economic integration of the development with the existing town will be central to its success.

The impact of initial construction costs for the full project on the Western Cape and Stellenbosch Municipal economy is estimated at R59 billion and R8,8 billion respectively. Over the 15 – 20 year implementation period the employment opportunities during construction totals approximately 14 100, whilst the ongoing job opportunities for the full project is estimated at approximately 12 900 per annum.

The strategic location of Klapmuts alongside the N1 Freeway (designated primary development axis/transport route) and the Cape Town-Johannesburg railway line makes it a potentially significant centre for economic activity and residence within the larger region. It is based on these locational advantages and being an area of lesser natural and cultural significance (Low Value Cultural Landscape area) that the Stellenbosch SDF (2019) has designated Klapmuts as a Primary Node/Regional Centre

It is the intention to achieve certification as the first 5-star GBCSA Sustainable Precinct development in Africa. The project's social context, together with its economic potential and environmental innovation puts it in a unique position to create and maintain a world-leading position in sustainability. The developers have committed themselves to contributing to the improvement of the urban landscape and physical environment as well as the social upliftment and economic well-being of its communities as part of the success of this ground-breaking project.

This report, the Development Framework formulates the first level of plans pertaining to the Stellenbosch Bridge development and is submitted to the Stellenbosch Municipality for approval to guide the further development of the development area on the Stellenbosch Bridge landholdings.



PRECINCTS:

Mixed Use

- A1: Business, Residential, Education, Medical, Institutional, Research & Development, Smart Manufacturing, Sport & Recreation, Tourism, Utility Service, Parking
- A2: Business, Residential, Education, Medical, Institutional, Research & Development, Smart Manufacturing,Sport & Recreation, Tourism, Utility Service, Parking
- A3: Business, Institutional, Medical, Data, Research & Development, Smart Manufacturing, Utility Service, Parking, Transport Facilities
- A4: Business, Education, Medical, Institutional, Research & Development, Smart Manufacturing, Warehousing & Distribution, Data, Sport & Recreation, Utility Service, Parking
- A5: Business, Residential, Education, Medical, Institutional, Research & Development, Smart Manufacturing, Sport & Recreation, Tourism, Utility Service, Parking

Residential

- B1: Residential, Institutional, Business, Sport & Recreation, Tourism
- B2: Residential, Institutional, Business, Sport & Recreation, Tourism

Industrial

- C: Data, Business, Smart Manufacturing, Warehousing & Distribution, Utility Service, Parking
- D: Smart Manufacturing, Warehousing & Distribution, Data, Business, Utility Service, Parking

Conservation & Agriculture

- E: Agriculture, Renewable Energy, Sport & Recreation, Tourism
- F: Conservation, Sport & Recreation, Tourism

STELLENBOSCH
BRIDGE | BHULORHO | BRUG
connected living

NOTES:

Rev A: Stellenbosch Bridge Development Framework
Rev B: Precinct D Land Use change

KEY:

- Primary Routes
- Secondary Routes
- Main Entrance
- Secondary Entrance
- Precinct Access
- Pedestrian / NMT Network
- Destination Place
- Railway Line
- Station
- Development Precinct
- Precinct Number
- Mixed Use
- Residential (Predominantly)
- Industrial and related business activities
- Primary Open Space Network
- Conservation & Agriculture
- Road to link with future external road. Alignment of these roads to be determined.

TITLE:

STELLENBOSCH BRIDGE, KLAPMUTS
DEVELOPMENT FRAMEWORK PLAN

SCALE:

1:10 000 (A3)

PROPERTY DESCRIPTION:

PORTION 5 OF FARM 742, PORTION 2 OF FARM 744, REMAINDER FARM 742 AND FARM 1516, PAARL

PLAN DETAILS:

Plan No:	18096-003
Revision:	B
Date:	2020-08-17
Drawn by:	RC
Checked by:	AL & AR

AROUX TOWN PLANNING
AntonLotz TOWN & REGIONAL PLANNING

1.0 INTRODUCTION

1.1 BACKGROUND

Klapmuts enjoys a strategic location – its proximity to the Cape Town metropolitan area, Paarl and Stellenbosch as well as its excellent regional and national accessibility owing to the proximity of the N1 Freeway and Cape Town - Gauteng railway line have held huge promise for its future development.

These locational advantages encouraged a group of investors to form the Stellenbosch Wine and Country (Pty) Ltd in 2003 and invest in land adjacent to the Klapmuts urban edge. Following a lengthy process, the Stellenbosch Municipality granted approval for the Klapmuts Hills development in 2011, a higher-density, high-income residential development featuring 1 577 residential units and a Gross Lettable Area (GLA) of 23 200m² for business and other associated uses. The residential market was in a deep slump by the time these rights were granted which resulted in a significant delay in implementation.

Then, in 2018 the Klapmuts Special Development Area Economic Feasibility Study proposed the establishment of an innovation hub in Klapmuts. This allowed a reimagining of what the Klapmuts Hills landholdings could be used for. The now restructured company, Stellenbosch Bridge (Pty) Ltd appointed a consultant team to research and design a mixed-use innovation precinct and by mid-2019 this work resulted in a mixed-use Smart City concept called Stellenbosch Bridge.

At the same time, the Stellenbosch MSDF (2019) designated Klapmuts as the secondary growth node to the town of Stellenbosch. The Stellenbosch Municipality supported the creation of an innovation precinct as the new core of the Klapmuts node and allowed this vision to guide their decisions on the Klapmuts urban edge and spatial budget.

This is in recognition that the successful development of an innovation precinct in Klapmuts will hold significant socio-economic benefit not only for the town, but also for the Stellenbosch Municipality and the wider region.

1.2 PURPOSE OF THIS REPORT

Stellenbosch Bridge is one of the most significant and innovative mixed-use developments to be undertaken in the Western Cape in recent years and it needs to be planned and implemented logically and in phases to ensure the success and viability thereof.

The development site comprises various land units, some of which already have been through application processes and have development rights and others that only recently were incorporated into the Klapmuts urban edge and still need to be subjected to the various application processes.

In addition, the post-COVID world that we are about enter, requires a development concept that is robust and adaptable to survive and thrive in an irrevocably altered urban landscape. We cannot anticipate how the urban landscape is going to change, but we can incorporate the flexibility into the spatial framework, roll-out mechanisms, and basket of rights to allow the development to pro-actively respond to these changes.

Market interest in the innovation precinct is already significant and to avoid unnecessary long process delays which could potentially result in the missing of an economic growth cycle a series of applications will be submitted in terms of a clear vision and spatial framework for the innovation precinct to facilitate an expedient roll-out of rights and services.

The Package of Plans process will allow flexibility in the implementation of the approved rights according to appropriate levels of information in terms of which the authorities can verify and monitor the roll-out. It makes provision for a logical sequence of plans to be submitted at different stages in the planning process to activate various components of an approved basket of rights and guide the implementation of services and infrastructure.

This report, the Development Framework formulates the first level of plans pertaining to the Stellenbosch Bridge development and is submitted to the Stellenbosch Municipality for approval to guide the further development of the landholdings.

2.0 THE PACKAGE OF PLANS APPROACH

2.1 PACKAGE OF PLANS PROCESS

The 'Package of Plans' approach is a tiered planning process which provides a mechanism to plan and manage the development of large or strategic urban development areas by facilitating the phased roll-out of a basket of rights over an extended period. The benefits of this approach include that:

- it provides greater flexibility to accommodate the different phases of the complex development proposal;
- it responds to changing market conditions; and
- it provides mechanisms for delegations in the decision-making process.

The Package of Plans approach appears complicated, but if implemented correctly is a sound planning tool that starts with broader district-wide considerations at the Contextual Framework level, becoming more and more specific as plans move from context to the project and then to individual precincts and sites. Therefore, it is a phased process of negotiation, planning and approvals, whereby increasing detail is provided for each following step of development.

2.2 PLAN LEVELS

A Package of Plans consists of the following components that are listed in a hierarchy from higher-order to lower-order plans, and the lower-order plans must be in compliance with the higher-order plans:

- **Contextual Framework**

The Contextual Framework provides a broad overview of how a site relates to its context in terms of access, services, and urban connectivity as well as its functional role. The recently completed Stellenbosch SDF provides sufficient information on the role and vision for Klapmuts not to require a stand-alone Contextual Framework for this project.

A Contextual Summary is provided in section 3.1.

- **Development Framework**

The Development Framework sets out the framework elements for the site itself and ensures guidance to the change of use for the total site. The Development Framework views the planning for the site as a process as opposed to a fixed-state master plan, which will therefore require refinement as time passes and circumstances change.

The Development Framework is:

- A set of goals and policies to guide future conservation and development; and
- A basic physical structure (main structuring elements) which organises the site and relates it to its surroundings.

The Development Framework also provides a breakdown of the basket of rights (uses and the number and floor area provisions of these land uses) for the development of the site.

The Development Framework needs to be action-orientated and strategic, capable of being updated by means of a process agreed with the Municipality.

Although the Development Framework specifies maximums in terms of numbers, types and sizes, it is important that the approval provides enough flexibility to allow the movement of rights between precincts without further process.

The plan information provided is conceptual and therefore should not be dimensioned, other than the descriptions contained in the text.

This report is the Development Framework for the Stellenbosch Bridge project.

- **Precinct Plans**

The Development Framework Area is divided into sub-areas or precincts that have common features, functional relationships or phasing requirements. The precinct plan is a conceptual illustration of each precinct and provides the basis for determining the spatial responsibilities, limitations and rights, and forms the basis of more detailed zoning provisions.

The precinct plan provides a clear guide to the form, size and shape of the future development parcels and residential blocks and the urban design and the other controls that apply. It also defines a hierarchy of access, describes the open space system and provides dimensions for the different elements.

- **Subdivision Plans**

Subdivision plans are dimensioned plans processed in terms of planning law and establishes new cadastral boundaries within the precinct in line with the approved Precinct Plan. This level also facilitates the transfer of units and GLA from the basket of rights acquired as part of the Precinct Plan approval. Subdivision Plans may be approved at any stage after the Development Framework has been approved.

- **Site Development Plans**

Site Development Plans (SDP) are more detailed plans for groups of erven or larger individual sites. These could also include subdivision plans for specific areas and provide the basis for determining the zonings for the various properties including details relating to land use, floor space, building lines, height, parking requirements, municipal services and landscaping, as well as details relating to the position and appearance of buildings, open space, pedestrian links and traffic movement.

- **Building Plans**

Building plans, when submitted for approval, are reviewed against the relevant Precinct and Site Development Plans and contain detailed specifications as required by the National Building Act, and once approved by the local authority, authorise building work to be performed.

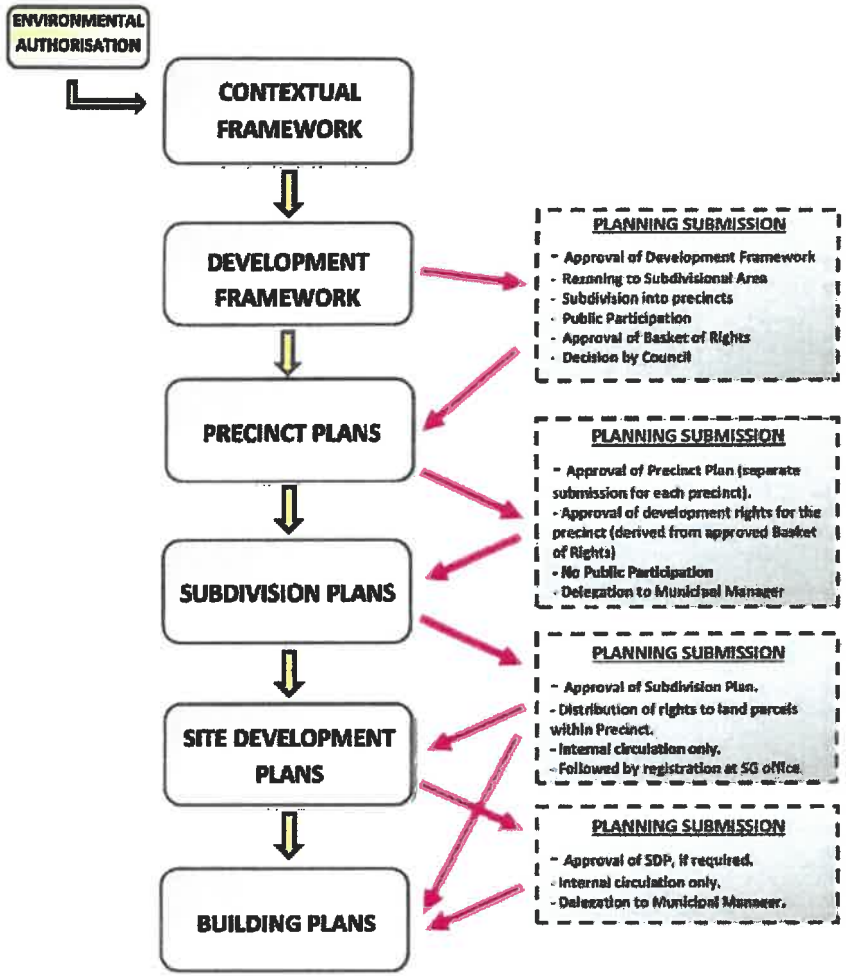


Figure 1 – Package of Plans and Application Methodology Diagram

3.0 CONTEXT AND SITE DESCRIPTION

3.1 CONTEXTUAL SUMMARY

The development context for this project as provided by the Stellenbosch Municipality SDF (2019) can be summarised as follows:

- The Stellenbosch Bridge landholdings, consisting of Farm 742/5, REM 742 and 744/2 Paarl RD as well as Farm 1515, Stellenbosch RD) is situated to the west of Klapmuts. The area of development is included in the Klapmuts urban edge (SDF, 2019) and the update of the Klapmuts SDF in 2020 will confirm the detail of the urban edge alignment.
- Klapmuts is one of the three main settlements within the jurisdiction of the Stellenbosch Municipality (SM). The municipality is home to some 176 000 people (2018) and located in the heart of the Cape Winelands, a highly valued cultural landscape with globally important natural habitats.
- Politically, SM forms part of the Cape Winelands District Municipality of the Western Cape Province. The municipality adjoins the City of Cape Town to the west and south and the Breede Valley, Drakenstein and Theewaterskloof Municipalities to the east and north.
- Functionally, the SM forms part of the Greater Cape Town metropolitan area. SM covers a geographical area of approximately 830km².
- The SM Integrated Development Plan 2017-2022 (IDP) is aimed at coordinating the efforts of various municipal departments in achieving the municipality's vision to be a "valley of opportunity and innovation". The Valley of Possibility focus area looks to attract investment, growing the economy and employment.
- It is estimated that 91% of the people living in the urban areas of the municipality by 2031 will reside in Stellenbosch town, Klapmuts or Franschhoek.
- Klapmuts does not form part of the World Heritage Landscape, Protected Areas or Green Network of the SM and it is located in a Low Value Cultural Landscape area.
- Pursuant of the SDF's goal to direct new growth to areas of lesser natural and cultural significance that offers movement opportunity, Klapmuts has been designated as a Primary Node/Regional Centre. The N1 was designated as a primary development axis/transport route.
- A significant proportion of the municipal population is poor and reliant on the informal sector for livelihoods. Approximately 53,1% of households in SM fall within the low-income bracket, of which 20,4% have no income. Less than 50% of households fall within the middle to higher income categories, split between 35,6% in middle income group and 11,5% in the higher income group. Overall, SM's unemployment rate increased to approximately 11% in 2017.
- The SDF concludes that SM will continue to grow without the economy necessarily being fully geared to provide work opportunities or generate funds to provide needed services; the growth in the informal sector as the only means to ensure livelihoods to poorer citizens is expected to continue; and economic sectors accommodating unskilled workers (especially manufacturing and agriculture) show slow growth.
- The SDF expresses support for the development of an Innovation Precinct and Smart City on the Stellenbosch Bridge landholdings.
- Klapmuts is 50 km east of the Cape Town CBD and the Cape Town International Airport and approximately 15 km from Kraaifontein, Paarl and Stellenbosch (Refer to **Figure 2**).
- According to the Klapmuts Special Development Area – Status Quo Report (BEAL Africa, 2017), the Klapmuts land use (Refer to **Figure 3**) includes 2 071 residential, 15 business and 21 industrial properties, as well as 122 farmland and related properties. Community-related land use include a police station, primary school, safe house, community centre, crèche and three churches. 91% of the residential units are single dwelling homes, mainly in the middle- and lower-income brackets.
- The more recent urban development concentrated in the town proper include a local shopping centre along Klapmuts Old Main Road (R101) and the Rozenmeer upper-middle-income gated housing development. Warehousing is being developed at the Simonsberg Business Park south of the town along the R44 road, while lower-middle-income housing was developed, west of the industrial township. Klapmuts has seen significant growth in subsidised public housing with more than 500 additional housing units developed along its southern edge.
- Limited tourist uses, such as wine cellars offering wine-tasting and guest accommodation, and other uses associated with the wine industry operate in the surrounding rural-agricultural area.

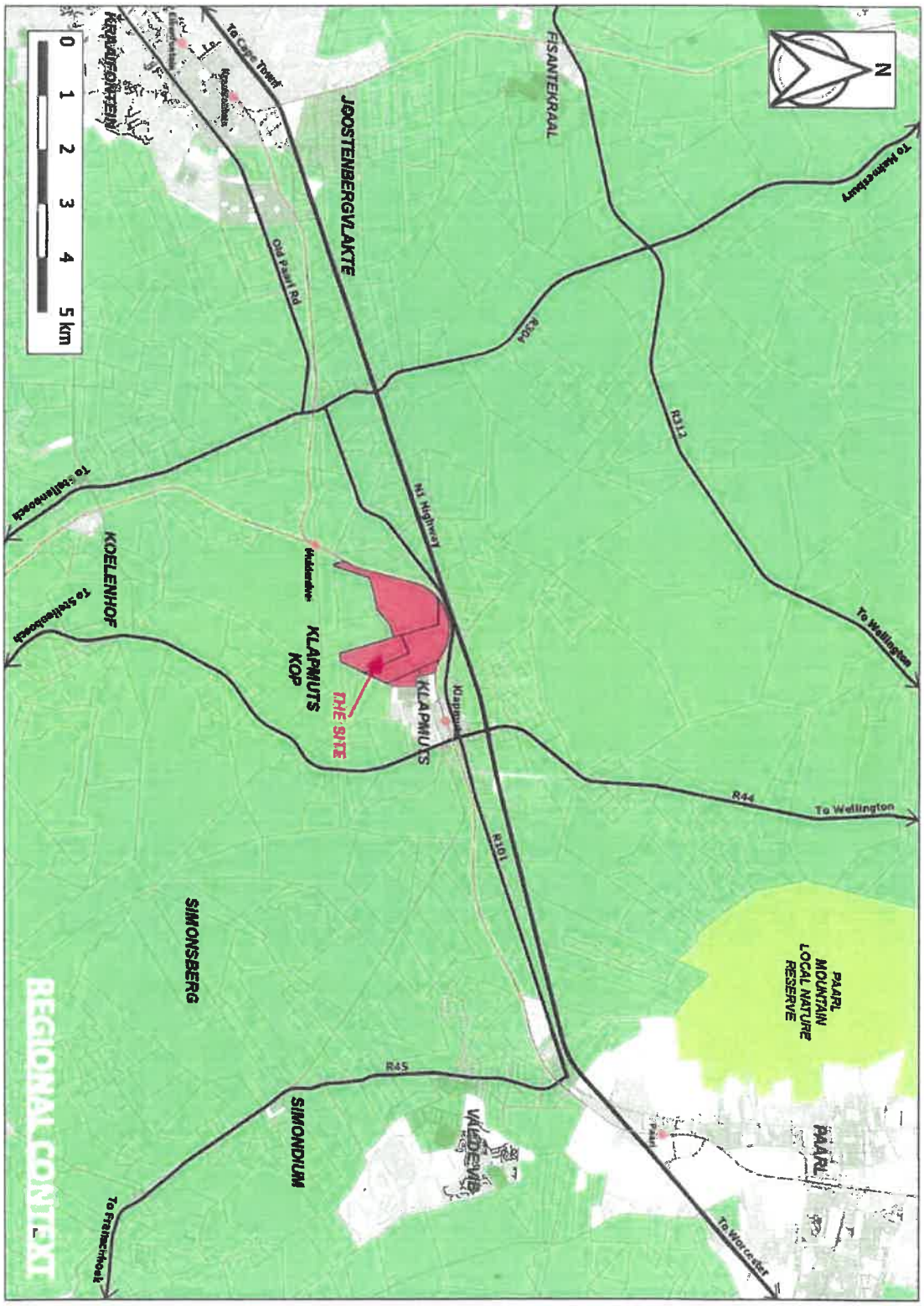


Figure 2: Regional Context

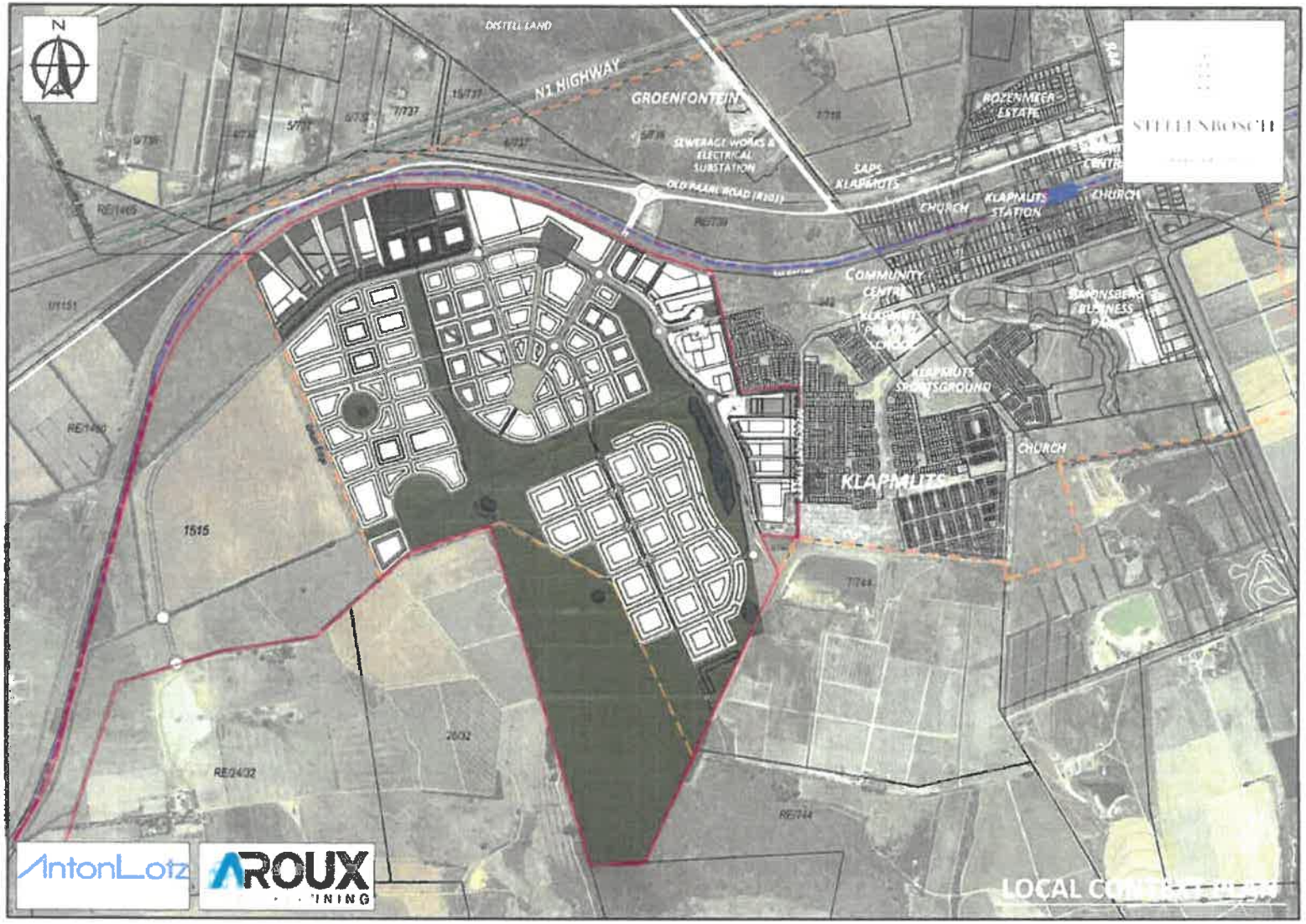


Figure 3: Local Context

- Recently approved land use applications (BEAL Africa, 2017) on agricultural land include the gated or lifestyle housing estates to the east and southeast of Klapmuts town allowing about 295 new housing units; 518 new housing units next to Rozenmeer north of Klapmuts town, and the Anura Lifestyle Estate approved for 154 new housing units.
- Distell Limited received land use approval to relocate and consolidate many of its beverage production, bottling, warehousing and distribution facilities on land north of the N1. The Distell facilities will take up 53 ha of the 200 ha landholdings, allowing commercial and mixed-use development opportunities on the non-sensitive remainder of the site for Distell's suppliers and other businesses to co-locate.
- Klapmuts north of the N1 Freeway falls into the Drakenstein municipal area. Co-operation and coordination between the two municipalities on planning and service provision is critical to maximise the development potential of the larger Klapmuts area.
- SM have already made significant investment in the expansion of the water and sewerage infrastructure of Klapmuts to unlock the potential of the area for private-sector economic development.

3.2 IMPACT OF THE DEVELOPMENT

The following development considerations are relevant to the Stellenbosch Bridge project:

- The Stellenbosch Bridge Innovation Precinct and Smart City development will be a major catalyst in achieving the Stellenbosch Municipality's vision to "be a valley of opportunity and innovation" and to attract investment, stimulate economic growth and create employment as part of the 'valley of opportunity' focus area.
- The Stellenbosch SDF (2019) has designated Klapmuts as a Primary Node/Regional Centre (together with town of Stellenbosch) based on it being an area of lesser natural and cultural significance (Low Value Cultural Landscape area) and enjoying strategic transport access.
- The strategic location of Klapmuts alongside the N1 Freeway (designated primary development axis/transport route) and the Cape Town-Johannesburg railway line makes it a potentially significant centre for economic activity and residence within the larger region. Stellenbosch Bridge will kickstart this economic and residential activity.
- Through its designation as a primary development node, the regional role and growth potential of Klapmuts have changed from a residential village to a key urban growth centre. Substantial infrastructure investment will be required to facilitate this growth and a project of significant size is needed to unlock the investment in new infrastructure.
- Stellenbosch Bridge needs a substantial footprint and high-density built form to achieve the scale necessary to ensure its success and attain international status, whilst also integrating a significant central green system. The project's design proposal was carefully constructed to ensure a walkable, mixed-use development that is economically viable whilst pursuing biophilic design principles.
- The development will have a significant socio-economic impact on Klapmuts, the region and the Western Cape. By becoming a world-renowned innovation and smart city development it will stimulate growth and job-creation in an array of sectors. The innovation precinct will initially lead with the creation of highly skilled jobs, but as the mixed-use development grows, the jobs in other fields will stimulate the economic prosperity and social well-being of the communities of Klapmuts. The physical and socio-economic integration of the development with the existing town will be central to its success.
- The impact of initial construction costs for the full project on the Western Cape and Stellenbosch Municipal economy is estimated at R59 billion and R8,8 billion respectively. Over the 15 – 20 year implementation period the employment opportunities during construction totals approximately 14 100 whilst the per annum ongoing job opportunities for the full project is estimated at approximately 12 900.
- Although the Klapmuts area has been designated as having lesser natural and cultural significance, the design proposal will include a range of design and landscaping proposals to mitigate negative visual impacts and create a development that contributes positively to its landscape.
- To change public perception of Klapmuts as a low-income area and turn the town into a destination, it needs a landmark to locate it in people's mental maps. The visibility of the buildings and design features at Stellenbosch Bridge will create the landmark needed to achieve this.
- It is the intention to achieve certification as the first 5-star GBCSA Sustainable Precinct development in Africa. The developers commit themselves to the improvement of the urban landscape and physical environment as well as the social upliftment and economic well-being of its communities as part of the success of this ground-breaking project.

3.3 SITE ANALYSIS (Legacy Environmental)

Site opportunities and constraints (Refer to **Figures 4 and 5**):

- **Size:** The Stellenbosch Bridge landholdings are 338ha in size of which 204ha falls within the Klapmuts urban edge. The area inside the urban edge is referred to as the development area.
- **Klapmutskop:** The surrounding landscape is relatively undulating, with Klapmutskop as a distinctive feature to the south of the landholdings. It is elongated in a southeast-northwest direction, with its crest at about 522m above mean sea level (a.m.s.l.). Its northern elongated ridgeline slopes to the northwest from 522m a.m.s.l. at its crest to 180m a.m.s.l. adjacent to the railway line on the northern edge of the landholdings.
- **Site Topography:** The landholdings contain no strongly defining topographical features. There is a gentle slope across the extent of the land, barring the eastern portion, which is located on relatively level land. The high point is at 251m a.m.s.l. and the low point at 180m a.m.s.l. The average slope across the development area is approximately 1:12 to 1:20, allowing for views across to the distant mountains from the higher lying areas. These slopes are ideal for development whilst the higher-lying ridgeline of Klapmutskop will not be broken, thereby preventing an intrusion into the cultural landscape. The raised railway line along the northern edge also mitigates the views of the development area from the R101 and N1 Roads.
- **Water Features:** There are no natural wetlands, rivers or drainage lines on the landholdings, but a number of man-made drainage furrows, stormwater retention facilities, and small dams are retained as part of the open space system. No riverine vegetation exists along the gullies and drainage ditches. A number of small, shallow ephemeral pans are scattered over the landholdings. These have little botanical significance as species diversity is low (single species of sedge). Artificial wetlands have developed around the elongated dam on the south-western edge of the landholdings as well as the dams along the eastern side of the development area. The botanist considers these water features to be disconnected and note that they are of little significance in the highly disturbed habitat and have been incorrectly designated as critical biodiversity areas. These water features including the main stormwater channel and the dams located in the centre of the landholdings are to be retained and improved for functional and recreational purposes.
- **Soils and Geology:** The lower eastern slopes (development area) contain coarse sandy hillwash, which represents the remnants of weathered sandstone and granite. This hillwash horizon overlies Malmesbury Group shales and phyllite which has been intruded into by granites of the Stellenbosch-Paarl Pluton. The granites weather to form intact, moist mottled clays. The clay may have dispersion, swelling and collapsing characteristics which may cause buildings to crack if mitigation measures are not taken with foundations and wall construction.
- **Tree Lines and Clumps:** A number of tree lines and clumps exist on the landholdings, but none of these are of environmental value. While these are alien species (Blue Gum and Oak), they are important landscape features and will be protected and improved as part of the area's scenic beauty and to assist in reducing the visual impact of the development.
- **Vegetation in the Development Area:** There is no intact indigenous vegetation in the development area. It has been transformed by years of farming (croplands and grazing) and mining (of sand and laterite) and is not restorable. No active cultivation of crops has occurred for some time with limited grazing of community livestock in the recent past. The open space system within the development will be landscaped using plant species of the Boland Granite Fynbos and/or Swartland Alluvium Fynbos. A search and rescue approach will be undertaken to bolster such species, especially bulbs that are scattered over the properties.
- **Natural vegetation:** The Boland Granite, Swartland Renosterveld and/or Swartland Alluvium Fynbos located on the higher ridgeline to the south and west of the development area which have been excluded from the urban edge will be protected. These naturally vegetated corridors within the development will connect to Klapmutskop and will provide recreational, tourism and environmental education opportunities.
- **Vineyards:** Small areas of the better-quality agricultural soils, mainly on the upper ridgeline and the western slopes of the landholdings have been used for vineyards. The viability of these vineyards is limited.
- **Fauna:** Given the extremely low biodiversity and open nature of the eastern slopes, the high grazing use and human activity, the presence of fauna is limited to rodents (gerbils and moles) and some bird species. The low fauna and flora diversity of the development area will not constrain the layout but the proposed biophilic design, integrated open space system, landscaping, improvement of water bodies and focussed management will assist in encouraging a larger variety of fauna and increased biodiversity over time.

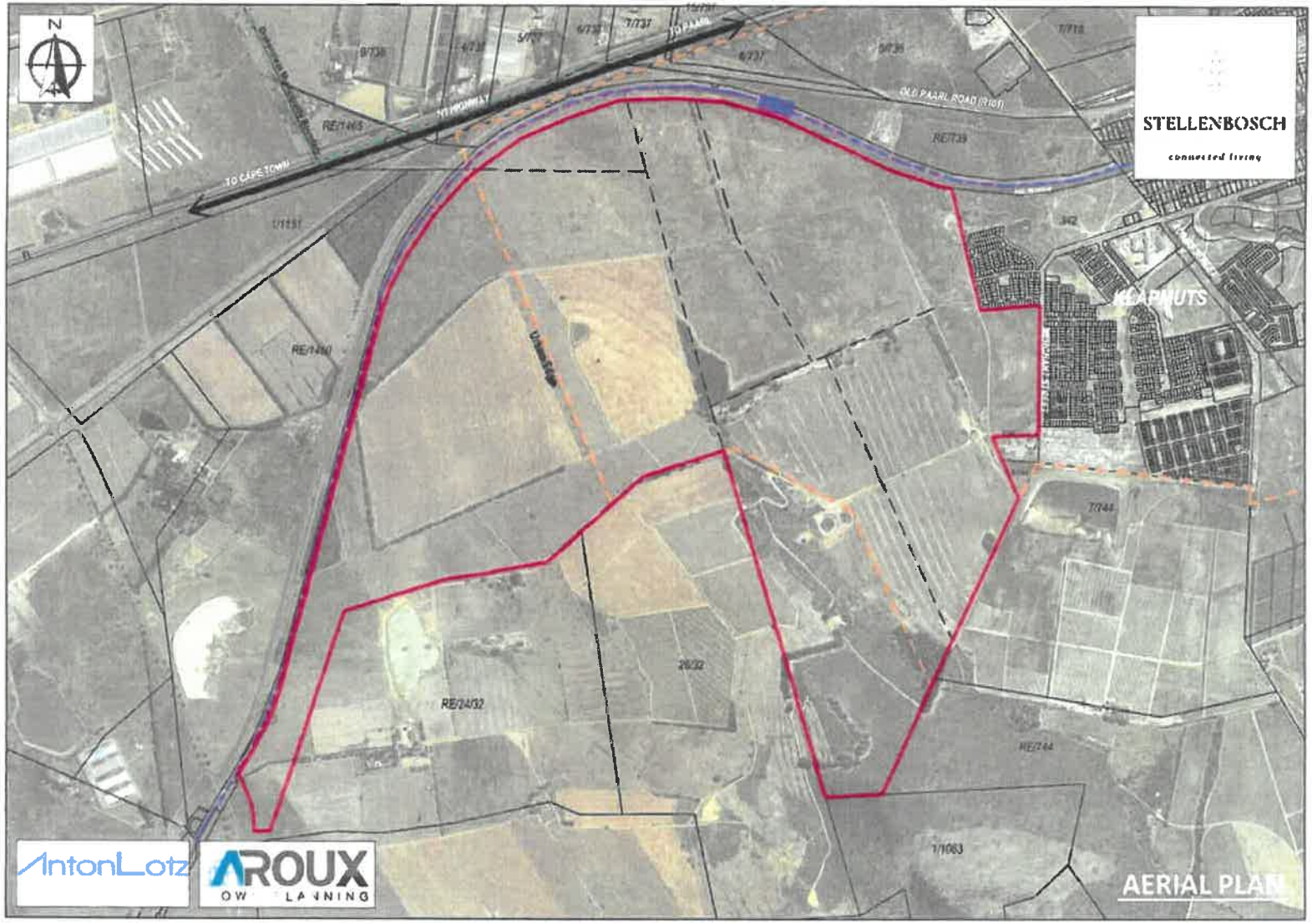


Figure 4: The Site

Figure 5: Panoramic Photographs

4.0 DEVELOPMENT CONCEPT

The Vision for Stellenbosch Bridge:

'A dynamic, innovative, collaborative and sustainable hub, building bridges locally and globally.'

4.1 DEVELOPMENT GOALS

To achieve the vision the development will be based on the following development principles:

- **Sustainability**

Sustainability should inform all aspects of the development. Meeting current development needs without compromising the ability of future generations to meet theirs should inform its planning and decision-making processes. This includes protecting and enhancing the natural environment; ensuring resource management; balancing environmental, social and economic needs; pursuing biophilic design; enhancing circular resource flows; and integrating sustainable designs for all spaces, buildings and services.

- **Human Scale**

The development should have a people-centric urban form. Walkability is central to its success – its zoning should allow a higher density, mix of uses designed around safe and dynamic public spaces and streets encouraging human interaction and promoting a healthy and active lifestyle. Shops, jobs, amenities and social activities should be at a walkable distance from workplaces and higher-density residential areas.

- **Conviviality**

The development design and layout should foster social interaction through the creation of a hierarchy of places, devised for the full range of social relations, from opportunities for personal solitude to friendship and community life. Vibrant towns are interactive and socially engaging and offer diverse social and economic groups opportunities for gathering and interaction in a range of safe public spaces.

- **Efficiency**

The development should create a compact, high-density urban form which results in more efficient urban systems including services and transport. It encourages optimum use of land, roads, facilities, services and infrastructural networks, reducing per household costs, while increasing affordability, productivity, access and civic viability. Efficiency promotes a balance between the consumption of resources such as energy, time and money, and planned achievements in comfort, safety, security, access, tenure, productivity and hygiene.

- **Innovation**

The development should pioneer initiatives for the incorporation of information and communications technology (ICT) and Internet of Things (IoT) into all aspects of the urban ecosystem. The mixed-use environment and urban management will benefit from a fusion of design thinking with the technological advancements facilitating local solutions; social and technological innovation; entrepreneurship; optimisation of infrastructure; connected living; smart city management; green and clean technologies; use of smart and sustainable materials; off-grid energy solutions; and a move towards zero-waste.

- **Opportunity**

The development should create an environment for personal, social, and economic opportunity. This is achieved by facilitating access to a range of places, services, facilities and information providing a variety of opportunities for enhanced employment, economic engagement, education, and recreation.

The emergent knowledge-based economy on which this development is based is changing urban fabric and functioning and requires new approaches to the integration of complementary sectors and land uses. The development should play an equalizing role in allowing all citizens to grow and access opportunities according to their capabilities and efforts.

- **Integration**

The development should integrate into the larger environmental, socio-economic and cultural-geographic system, essential for its sustainability. The integration into various contexts from local level to global level are relevant with a focus on the direct zones of influence including the Klapmuts town and the Stellenbosch Municipality and Winelands region.

Integration within the local context include respect for the environmental features and cultural heritage of the place; considered physical linkages via roads, services and land use; understanding of the social challenges faced by the communities; and insight into the economic needs of its people.

- **Social Justice**

The development should strive to be a leader in the social and economic upliftment of previously disadvantaged communities. The social stability of South Africa is dependent on communities working together to create equal opportunity and quality of life. Stellenbosch Bridge will be a catalyst for the improvement of the social well-being and prosperity of the communities of Klapmuts and will seek expanding the benefit of its innovation and economic opportunity to uplift the people within its zones of influence.

- **Integrity**

The development should be implemented and managed by means of accountable, transparent, and competent decision-making. This includes a long-term commitment by management and other role-players to the vision and principles; sustainable management practices; leadership in decision-making; a transparent system of participation for residents and other stakeholders; adherence to a system of design and development review; and opportunities for wider stakeholder responsibility in the implementation of the project.

4.2 DEVELOPMENT OBJECTIVES

The development objectives for this development are the following:

- **Environmental Sustainability:** All aspects of the development will contribute to environmental sustainability, achieving a Sustainable Precinct Certification (First 5-star GBCSA rating in Africa).
- **Creating an Entrepreneurial Ecosystem:** The innovation precinct will form the heart of an economically connected mixed-use development linking various sectors in an integrated business environment.
- **Spatial Innovation:** The planning approach and urban design will result in a multi-faceted, human-scaled, robust development that can rapidly respond to change, allowing the incorporation of new ideas and concepts. The mixed-use zoning will allow the integration of a broad range of uses in within a dynamic urban environment.
- **Connecting to Global and Local Contexts:** The project will build connections within the global innovation community whilst integrating physically, economically and socially with the Klapmuts town and the wider region.
- **Architectural Design that Acknowledge its Unique Cape Heritage:** The architecture for the project acknowledges the Cape heritage elements and integrates the fundamentals thereof with modern design components introduced through the innovation and biophilic design focus.
- **Integrated and Connected Communities:** The robust urban design framework facilitates social interaction, building integration and connection between its people and communities.
- **Socially Vibrant, Safe and Secure Communities:** The development will provide a safe and secure environment for residents and visitors, making them welcome in a socially vibrant active, healthy, and integrated community.
- **Use of Innovative Technologies:** Innovation will be encouraged and integrated in all levels of planning and implementation.
- **Active Precinct Management:** Hands-on management of the urban environment and smart city services and technology will be the foundation of the success of the development.

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4.3 DEVELOPMENT POLICIES

To achieve the goals and objectives of this development the following development policies are proposed:

- **Smart City:** An urban ecosystem based on an ICT and IOT backbone should be the basis of all aspects of urban functioning. Technology should be harnessed to create a sustainable urban environment.
- **Mixed-use Development:** A broad mix of land uses should be facilitated to maximise urban infrastructure; create a people-centric urban form; and ensure the efficiency and resilience of the development.
- **Drive towards Higher Density:** Achieving higher urban densities should be pursued to ensure the efficiency and sustainability of the development. Good design principles will ensure that higher density achieves sustainable, healthy living environments.
- **Social Diversity:** Linked to a mix of uses, the development should cater for social and cultural diversity to support a sustainable South African future.
- **Neighbourhood Focus:** The local neighbourhood should become the focus of activity by ensuring that all live, work, play needs are met locally, thereby reducing the need for travel and increasing the sustainability of the development.
- **Dense Diversity:** The development should aim to create housing choice for a range of incomes, mobility, ages and tastes at a high density. Housing developments and mixed-use buildings should allow for the integration of residents' activities and serving of their complimentary non-residential needs.
- **Quality of Semi-private Space:** Housing complexes and high-density residential blocks should provide quality semi-private space that can serve a variety of recreational and functional purposes.
- **Drive towards Renewable Energy and Renewable Resources:** To address resource scarcity, cost considerations and reliability of public-sector supply the development will drive a move towards private sector service provision and alternative energy solutions.
- **Resource Efficiency and Management:** Design and engineering solutions should ensure a reduction in resource demand, result in better management of resources, and facilitate an increase in resource harvesting, recycling & reuse.
- **Robust Urban Design Principles:** A clear design framework and agreed set of principles should be implemented and adhered to in order to create and maintain the envisioned design vision within a dynamic and innovative development environment.
- **Local Identity and Sense of Place:** The design and landscaping should focus on creating a sense of place and a local identity for the project, with landmark buildings, public art, the landscaping theme and the design style contributing to achieving this.
- **Sustainable Design:** Green buildings, green technology and sustainable precincts should be a standard requirement in developments and designs.
- **Safety and Security:** Design solutions together with active and passive security measures should ensure the safety of the development area.
- **Walkability:** To maximise the significant environmental, economic and social benefits the development should ensure walking accessibility of all services and facilities.
- **Perimeter Block Design:** To activate spaces and facilitate safe public environments building frontages along street and open space edges should be required.
- **Activated Street Edges:** Along identified streets active edges should be created to ensure future economic opportunity and commercial activity. The provision of parking and design of parking areas should be carefully considered along these streets.
- **Non-motorised Transport (NMT):** An integrated NMT system should be planned to support the reduction of internal private transport movement and improve urban efficiency.
- **Accommodation of Private Transport:** Access roads, parking and the design solutions should cater for the private car, but innovation and creativity should drive solutions that will ensure the balancing of pedestrian and cars whilst reducing the need for private transport.
- **Public Realm as a Social Space:** The design and management of the public realm should facilitate opportunity for social interaction.
- **Quality of Place:** Design quality should form a cornerstone of all aspects of the development.
- **Design for Changing Uses:** Building and services design should be able to accommodate changing user demands and land uses over time.

- **Health and Wellness:** The development should pro-actively design and cater for the physical, mental, and social well-being of its communities.
- **Local Context:** The development as a catalyst for the socio-economic transformation of Klapmuts should be sensitive to the town, its communities, and the landscape.
- **Network of Public Spaces:** To facilitate access, use and safety all public spaces should be linked into an integrated, legible public space network.
- **Access to Green Space:** The development should facilitate access to its natural and agricultural surroundings and create a variety of urban parks providing opportunity for sport, recreation and socialization.
- **Urban Greening and Sustainable Architecture:** To expand its environmental, social and health benefits, site and building design should incorporate biophilic principles.
- **Sustainable Environmental Management:** The implementation of the development should be based on an environmental management system.
- **Development Management:** Systems of design review and precinct management should be set up to ensure the implementation of the development policies and guidelines.
- **Community Participation:** Mechanisms should be created to facilitate community participation in and feedback on the attainment of the development goals and objectives.
- **Innovation:** The development concept and implementation should provide the flexibility to respond to new ideas and concepts in a rapidly changing environment.

4.4 DEVELOPMENT COMPONENTS

Stellenbosch Bridge is a visionary development – it is a private sector-led initiative that combines two leading-edge global concepts – **innovation district** and **smart city** – to create a knowledge economy-based focus area within a **mixed-use, environmentally conscious, people-centred** location. These five components are integrated to create a vibrant **live-work-play-innovate development.** The main components and planning focus are:

- **Innovation Precinct**

An innovation district is a planned, well-managed economic activity hub where a high density of innovation institutions, firms, and other organizations locate to benefit from mutually beneficial interaction, a high-quality innovation ecosystem, and easy access to external role players and markets.

The **Innovation Precinct** is the core of the Stellenbosch Bridge project. (Klapmuts and environs, with Stellenbosch Bridge as its core may, over time, grow into a significant innovation district ecosystem, hence the use of the term Precinct here to allow future expansion.)

It is planned and designed to enable the clustering, co-location and partnering of businesses and organisations in the growth sectors that are central to the future expansion of the Western Cape and South African **knowledge economy** (use of knowledge and education to create a product or service that leads to technical and scientific advance), including Agriculture (e.g. agri-tech and agro-processing); Clean Technology (e.g. energy, waste, water); Bio-Technology (e.g. bio-medical, agri-bio tech); Information and Communication Technology (ICT) and Sport and Gaming. The convergence and interaction of these co-located business clusters will stimulate cooperation and innovation.

Important to a successful innovation district is its research and development (R&D) capability and incubator offer. Having the **University of Stellenbosch** as a key partner in the Innovation Precinct provides the university-industry collaboration, the research capability and knowledge as well as the commercialization expertise (through Innovus and Launchlab) to assist corporates, business start-ups and other stakeholders to research, develop, commercialise and attract investment for innovation and entrepreneurial activity.

Important to the success of the Innovation Precinct are planning parameters and zoning rights that can accommodate a range of land uses over time as needs and opportunities evolve; a development that understands and caters for the needs of the whole continuum of innovation role players; adequate engineering and ICT services; being transit accessible from throughout the region and beyond; outstanding precinct management; and an integrated public space system that facilitates interaction, communication and connection in order to share knowledge.

The importance of public spaces where people can socialise is underpinned by the collision density principle – research of innovation districts has found that innovation is stimulated is public squares and places such as coffee shops in which people can meet or 'bump into each other by chance', sharing ideas, building trust and making new connections. In a post-Covid-19 environment with more online interaction, the need for safe spaces for interaction and collaboration will be even more important.

In summary, the Innovation Precinct is a dynamic and creative mixed-use environment where innovative design, a quality public space system and a people-centric focus can help knowledge economy entrepreneurs, established companies, and academic and private-sector ideas-leaders build unexpected relationships and find transformative solutions for the challenges humanity and cities face.

- **Smart City**

The implementation of ICT to drive innovation in the urban environment is often intricately linked to innovation district development. A **Smart City** is defined as a spatial or urban ecosystem which uses ICT and Internet to improve its efficiency, governance and functioning.

Eight functional areas form the basis of smart city implementation: Mobility (e.g. transport sharing, intelligent parking, NMT); Infrastructure (e.g. intelligent networks, digital waste management, preventative maintenance); Energy (e.g. intelligent consumption, smart metering, renewable supply); Buildings (e.g. integrated photovoltaics, climate control, automated services); Technology (e.g. seamless connectivity, smart homes, e-education); Governance (e.g. open space security, community engagement, service payments); Citizens (e.g. energy conscious, job opportunities; social responsibility); and Healthcare (e.g. disaster management, healthcare management, medical monitoring to limit the spread of infections).

Smart technology allows real-time monitoring of systems to better inform strategic decision-making. The development will be more resilient to respond to environmental challenges; more sustainable in resource use and management; can better optimise its services and infrastructure; and will be better equipped to serve the needs of its communities.. It allows for efficiencies that will reduce costs on the environment and for the ratepayer.

Benefits of the project's smart technology that can practically be applied to the advantage of the Klapmuts communities will be used for socio-economic upliftment and function improvement of the town, e.g. deployment of the technology to streamline the supply of services and products by small business; to help workers access jobs and register for skills development; and for personal health management.

- **Mixed-use Environment**

Knowledge-based economic activity needs to be integrated into a dynamic mixed-use urban environment. The innovation precinct is designed on the principle of **Flexible Urbanism** – the creation of flexible buildings and spaces that adapt to evolving needs without compromising the urban design vision and under coordinated management.

Housing is an essential component. A diverse assortment of residential opportunities will cater for the full spectrum of family structures. Innovation in design, sustainability and configuration will address the needs and priorities of new, environmentally conscious generations – the talent that is needed for entrepreneurship and innovation to flourish. Higher density is essential to ensure the efficiency and sustainability of the development.

Higher density does not raise the risk of communicable disease such as Covid-19 when high-quality, safe public and semi-private spaces and NMT movement systems are created. The availability of open space and the walkability of the neighbourhood allow the community to be more physically active, thereby reducing the risk of chronic disease, and with that their risk of communicable disease infections.

The R&D component will require laboratories, offices and other facilities for research, design and testing and the production and assembly of prototype products. Innovation districts also incorporate clusters of industry – these service the innovation industry, but also contributes to a balanced urban ecosystem. Smart Manufacturing (Industry 4.0) which pioneers digital automation of manufacturing and uses new technology such as 3D printing can easily integrate into mixed-use environments.

The live and work/innovate components are integrated with the business, recreational, and social facilities. Provision is made for a full range of retail, education, institutional and entertainment uses that will contribute to the liveability of the development. It is anticipated that this integration will happen both vertically (within buildings) and horizontally (with street blocks and precincts).

The technology-driven, creativity-based knowledge economy requires proactive land use management to deal with the dynamic nature thereof. The integration of complementary sectors and land uses and dealing with the challenges of changing urban fabric land use demands and functioning require adaptability.

- **Environmentally Conscious Development**

The term '**Innovating to Zero'** (Frost and Sullivan) speaks of a journey to create environmentally conscious, sustainable cities of the future. This entails efforts to promote for example zero-waste cities, zero-emission zones, zero accidents, zero crime, and zero debt cities.

Stellenbosch Bridge as an innovation-driven smart city will strive to lead thinking and implement innovations and technology that contribute towards this vision. The use of renewable energy; design and engineering solutions that reduce resource demand; circular resource economy; biophilic and sustainable designs of spaces, buildings and services; waste reduction; integration of NMT; convenient pedestrian routes; and social innovation are some of the measures to be implemented to better balance the environmental, social and economic needs of this development.

- **People-Centred Place-making**

The development is underpinned by a focus on **Quality of Life**, where emphasis is placed on enjoyment and living a healthy and active lifestyle. It includes a Design for Community - a layout that fosters inclusion, equal opportunity and choice; and the opportunity to live closer to each other and being better able to mingle in central spaces, streets, and other outdoor places; and a Place for Self – space for personal health and wellness (mind, body, soul) by integrating opportunities for quite reflection, exercise and inspiration.

The design of the integrated open space system enhances the liveability, making it easier to walk, bike, and use other NMT to work, socialize, and make meaningful connections. Open space areas include cafes and other facilities which encourage people to interact with each other. Methods such as triangulation are used to facilitate conviviality in public places and streets.

The utilisation of semi-private space such as green roofs and community gardens within courtyards will also enhance social interaction and personal fulfilment while contributing to the sustainability of the development.

4.5 DEVELOPMENT ELEMENTS

Stellenbosch Bridge is made up of a number of development and open space precincts. These precincts are integrated through a central open space system. The main elements of this development are:

- **Precinct A (Innovation)**: At the heart is the mixed-use innovation precinct where entrepreneurs, academics and corporates connect to develop and incubate new products and services for fast-growing and promising industry clusters. Residential, manufacturing, business education, social and recreational uses and a transport hub are integrated with innovation uses providing for all aspects of a live-work-play environment designed around a network of public spaces.
- **Precinct B (Residential)**: The precinct is a high-density residential area that incorporates complimentary social and business uses and is designed to provide multi-functional open spaces areas, creating a high-quality living environment.

- **Precinct C (Industrial):** Linked to the innovation precinct is a green, smart manufacturing and distribution precinct serving the development. Allowance is made for the integration of business uses to expand the functionality of the area.
- **Precinct D (Data Centre):** The precinct accommodates the main data centre together with business uses requiring high visibility.
- **Integrated Open Space System:** The development is integrated by a central open space system which fulfils a variety of social, economic, environmental, service, and recreational functions.
- **Pedestrian/NMT Network:** An integrated pedestrian/NMT system links the open space system with the development precincts and surrounding built fabric.
- **Destination Places:** The central square is the primary destination place to the development forming an economic and social focal point. It is supported by a variety of smaller public squares and open space destination places such as water features, eventing facilities and a labyrinth.
- **Road System:** The development is served by a primary public road system linking to Klapmuts and the regional road network. A secondary road network of private roads providing internal circulation.
- **Precinct E (Agricultural Research):** The land outside the urban edge will be used for agricultural research related to the agriculture innovation cluster, renewable energy provision, sport and recreation, and tourism.
- **Precinct F (Conservation):** The natural vegetation area located on the ridgeline south of the development area is protected (excluded from the urban edge). It links the development to Klapmutskop and will provide recreational, tourism and environmental education opportunities.

4.6 URBAN DESIGN APPROACH (Osmond Lange Architects)

The urban design concept (Refer to **Figure 6**) for the Stellenbosch Bridge development is based on traditional urban design principles which provides living, working and recreational spaces for a diverse community of people in combination with creating a catalytic environment that provides opportunities for technological and social enhancements which define a smart city.

The Urban Design vision is based on the following urban design principles:

- Daily needs within walking distance (mixed-use environment)
- Interconnected system of streets
- A central focus: main streets and square
- Perimeter buildings orientated to the public realm
- Clear distinction between private and public space
- Sharing of infrastructure over a 24-hour period

The design of the mixed-use environment will focus on place-making, urban fit and spatial integration. The development can contribute significantly to the transformation of Klapmuts to a location to be experienced and enjoyed at pedestrian scale across boundaries. This aim becomes possible because of the critical mass of built form, mix of uses and the relationship of mass to a designed external and internal open space system. A place where many different building types, allowing for a variety of experiences and functions can exist side by side within a unified whole.

The individual buildings will have strong features, differ in detail, but will be part of the "same family". The development spine is a north-south pedestrian street linking two main squares around which all the parts of the development are collected and grouped. The area will be a safe pedestrian environment in which open walls, streets, squares, parks and sports fields are articulated as positive spaces, providing an array of experiences and functions

Parking will be accommodated on streets and within courtyards, semi-basements and basements concealed within the development. From inception the development will use the materials and technology required to achieve a GBCSA rating. Landscaping and a green environment are integral to the architecture. Vertical and horizontal planes will be planted, and planting will be integral to the design of outdoor spaces and courts, which will be wind-sheltered and contain features such as arbours, structured planting, fountains, pergolas, street furniture and sculptures.

Stellenbosch Bridge via the central transport node, roads and pedestrian routes will integrate seamlessly with the surrounding built fabric and its network of routes and connections. It also maximizes the site conditions, taking advantage of the magnificent views from the development, whilst the views towards the development have been carefully considered.

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Figure 6: Urban Design Concept

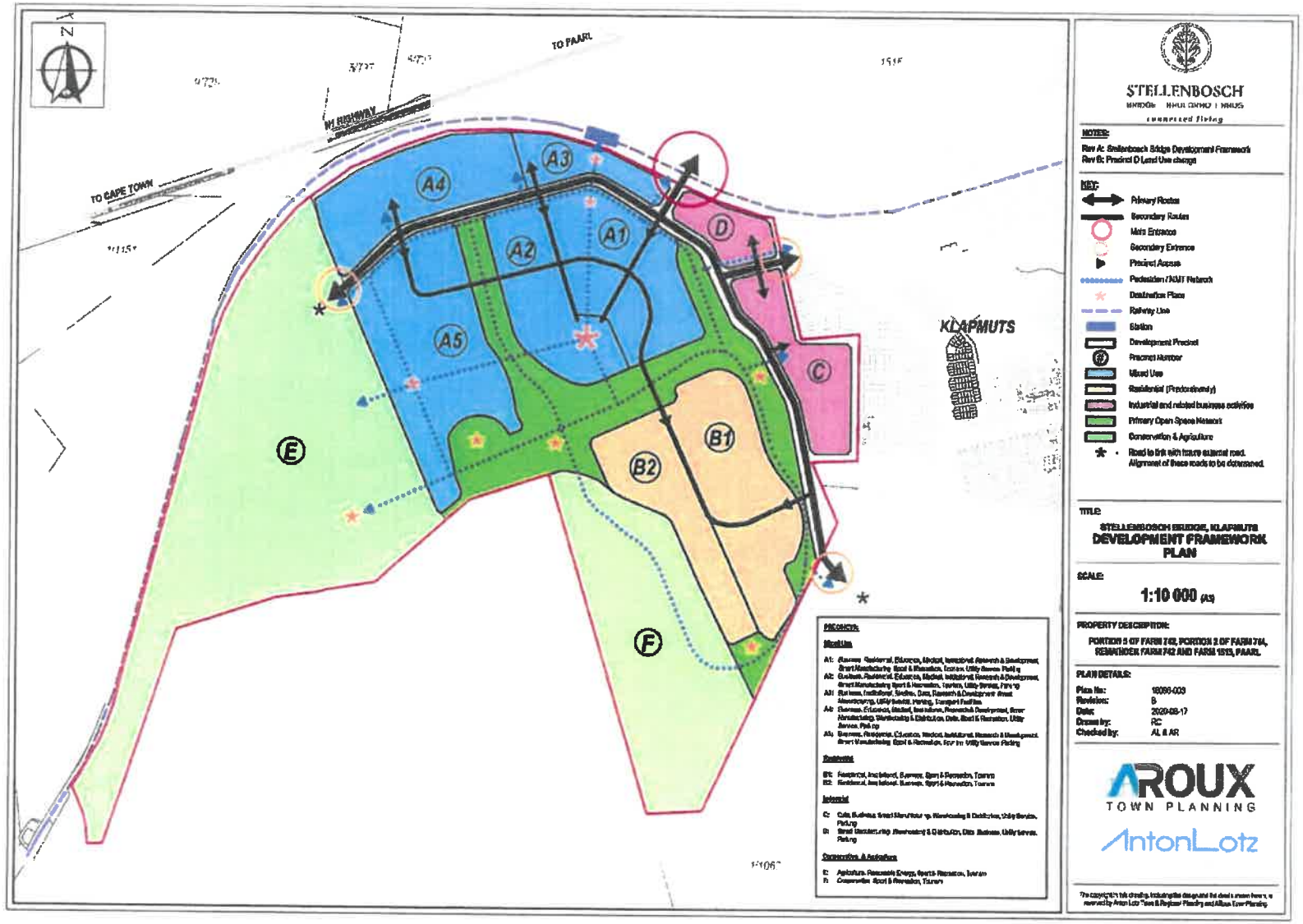

Figure 7: Development Framework Plan

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– Framework

5.0 DEVELOPMENT FRAMEWORK PLAN

The Development Framework Plan (See **Figure 7**) for the Stellenbosch Bridge sets out the basic physical structure for the development of the site in accordance with the urban design concept.

It identifies the key structuring elements that will guide future development implementation for the project.

5.1 ACCESS POINTS

The development will be accessed by means of four new vehicular/pedestrian accesses from the R101 (Old Paarl Road), R44 (Stellenbosch Road), DR 1090 (Elsenburg Road) and a link via Merchant Street as well as a new railway station:

- The primary access is a northerly link to the R101 via an underpass under the railway line. This access will link the development to the N1 via the existing R44 Interchange as well as a new interchange at the Groenfontein Road location.
- Three secondary accesses will be phased in (the regional road network plan will determine the timing and priority):
  - Merchant Street link: This access will have an integration function between the development and Klapmuts, providing for lower-order distribution only.
  - R44 Access: A road link to the R44 will provide access from the south-east.
  - DR 1090 Access: A road link to the Elsenburg Road will provide access from the west.
- Stellenbosch Bridge Station – A new station serving the development is proposed between the Klapmuts and Muldersvlei Stations, providing access from Paarl, Stellenbosch and the Cape Town Metro.

5.2 MOVEMENT ROUTES

Three levels of movement form part of the framework:

- The primary movement system consists of the main north-south route (R101 to R44) as well as the western (Elsenburg Road) and eastern (Merchant Street) link roads that integrate the four road access points and links the development to the broader area.
- The secondary movement system is made up of a network of private roads and accesses that provides internal access and circulation to the precincts.
- The third level of movement involves the Pedestrian/NMT system which will be catered for along the primary and secondary routes as well as the open space system which will ensure a walkable environment and links the development to the broader area.

5.3 OPEN SPACE SYSTEM

The open space system consists of the following:

- Primary Open Space System - the linear network of green spaces incorporating the existing tree lines, tree clumps and enhanced water features within the urban edge. The experience of this space will be enhanced through landscaping and the system will be linked into a wider green network including a link to Klapmutskop.
- Urban Space System - the road spaces and public squares internal to the development precincts. The system will be designed to give pedestrians equal importance of movement and to facilitate social interaction and economic opportunity.
- Destination Places - the central square, public squares and open space destination places such as water features, eventing facilities and the labyrinth. These places form focal points in the open space system and facilitate use, pedestrian movement, economic opportunity and social interaction.

5.4 PRECINCTS

The site is divided into four development precincts (with sub-precincts to facilitate phasing) and two open space precincts. Each precinct has been allocated a primary use category being 1) Innovation, 2) Residential, 3) Industrial, 4) Data Centre, 5) Agricultural Research or 6) Conservation. The precincts, use category together and proposed zoning are listed below:

- **Precinct A** (Innovation): The innovation precinct (Sub-Precincts A1 – A5) integrates all aspects of a live-work-play-innovate environment around a network of public spaces. The proposed zoning is Mixed-use Zone.
- **Precinct B** (Residential): The high-density residential precinct (Sub-precincts B1 and B2) incorporates complimentary social and business uses and multi-functional open spaces areas to create a high-quality living environment. The proposed zoning is Multi-unit Residential Zone.
- **Precinct C** (Industrial): The green and smart industrial precinct. The proposed zoning is Industrial Zone.
- **Precinct D** (Data Centre): The precinct accommodating the main data centre. The proposed zoning is Industrial Zone.
- **Precinct E** (Agricultural Research): The land area west of the urban edge. The zoning is Agriculture and Rural Zone.
- **Precinct F** (Conservation): The natural vegetation area south of the development area. The zoning is Agriculture and Rural Zone.

5.5 LAND USES

- **Precinct A** (Innovation) – Mixed-Use Zone:
  - Precinct A1 - Business, Residential, Education, Medical, Institutional, Research and Development, Smart Manufacturing, Sport, Gaming and Recreation, Tourism, Utility Service, Parking, Private Open Space, Private Road.
  - Precinct A2 – Business, Residential, Education, Medical, Institutional, Research and Development, Smart Manufacturing Sport, Gaming and Recreation, Tourism, Utility Service, Parking, Private Open Space, Private Road.
  - Precinct A3 – Business, Institutional, Medical, Data Centre, Research and Development, Smart Manufacturing, Utility Service, Parking, Transport Facilities, Private Open Space, Private Road.
  - Precinct A4 - Business, Education, Medical, Institutional, Research and Development, Smart Manufacturing, Warehousing and Distribution, Data Centre, Sport, Gaming and Recreation, Utility Service, Parking, Private Open Space, Private Road.
  - Precinct A5 - Business, Residential, Education, Medical, Institutional, Research and Development, Smart Manufacturing Sport, Gaming and Recreation, Tourism, Utility Service, Parking, Private Open Space, Private Road.
- **Precinct B** (Residential) - Multi-unit Residential:
  - Precinct B1 – Residential, Institutional, Business, Sport and Recreation, Tourism, Private Open Space, Private Road.
  - Precinct B2 – Residential, Institutional, Business, Sport and Recreation, Tourism, Private Open Space, Private Road.
- **Precinct C** (Industrial) – Industrial: Data Centre, Business, Smart Manufacturing, Warehousing, Logistics and Distribution, Utility Service, Parking, Private Open Space, Private Road.
- **Precinct D** (Data Centre) - Industrial: Data Centre, Smart Manufacturing, Business, Utility Service, Parking, Private Open Space, Private Road.
- **Precinct E** (Agricultural Research) - Agriculture and Rural: Agricultural Research, Renewable Energy, Sport and Recreation, Tourism.
- **Precinct F** (Conservation) - Agriculture and Rural: Conservation, Sport and Recreation, Tourism, Environmental Education.

In addition to the land uses contained and defined in the Stellenbosch Municipality Zoning Scheme Bylaw, 2018 the following uses are proposed:

- **Smart Manufacturing**: Computer-integrated manufacturing that uses data analytics, advanced robotics, 3D printing and/or a flexible technical workforce in an optimised, dynamic supply chain.
- **Research and Development**: Two related processes by which new products and services are created through technological innovation. It requires laboratories, offices and other facilities for research, development, design, testing and consultation as well as space for the production and assembly of prototype products.
- **Data Centre**: A facility for a large group of networked computer servers used by organizations for the remote storage, processing, or distribution of large amounts of data.
- **Gaming**: The playing electronic games through consoles, computers, or any other medium for which event venues such as halls, competition facilities and accommodation are required.

6.0 DEVELOPMENT RIGHTS

6.1 IMPLEMENTATION

The development vision is to create a knowledge economy-driven development set within a vibrant, mixed-use, sustainable, people-centred environment, but international precedent has shown that such innovation-driven, smart environments need dynamic land use management to facilitate swift reaction to rapidly-changing circumstances. In addition, the post-COVID world will be an irrevocably altered urban landscape with changes in land use demand and urban management that cannot yet be anticipated. To position this development to survive and thrive in these unpredictable circumstances, its planning and implementation need to be **Future Proactive.** It requires a strategy that allows flexibility but within clear controls. The basis of achieving a Future Proactive development is the **F.I.R.S.T. Principles**:

- **Flexibility**: Capability to adapt to changing circumstances by planning for it proactively – the package of plans, approvals and roll-out of design concept and services need to allow flexibility within broad approvals.
- **Innovation**: Being open to and able to respond to new thinking in a rapidly changing environment – the design guidelines, design review and implementation approach should provide scope to incorporate new ideas and concepts.
- **Resilience**: Ability to prepare for, recover from, and absorb changes – the mixed-use nature of the development proposal allows this project to broaden its resilience by being diverse, dynamic, inclusive and accessible. This will be applicable to the economic, social, environmental, management, transportation and services components of the project.
- **Sustainability**: Ability to maintain a balance between economic, social and environmental demands – the project's social context, together with its economic potential and environmental innovation puts it in a unique position to create and maintain a world-leading position in sustainability.
- **Thresholds**: Identification of clear limits at which action need to be taken or investments made to maintain the balance of the development and its environment – the management of development impact by monitoring development impact thresholds will allow land use flexibility and enable a more efficient response to changes in market demand and development opportunities.

The following interlinked Development Controls Mechanisms will be used to ensure the Future Proactive nature of this project:

- **Package of Plans**: The phased process of approval allows confirmation of rights as implementation happens. The incremental allocation of the basket of rights (Section 6.2) will be done by means of Precincts Plans and Site Development Plans (in the absence of Subdivision Plans as the development will be a Sectional Title Scheme) and will facilitate roll-out according to the demand timing of the various market elements and variability in the take-up rate.
- **Mixed-Use Zone**: The Innovation Precinct will be allocated a Mixed-use Zoning and development parameters in terms of the Stellenbosch Municipality Zoning Scheme Regulations, 2018 providing for the widest range of uses to facilitate the integrated nature thereof. Land uses not provided for under this zone and revised development parameters could be included by means of an overlay zone or similar mechanism.
- **Floating Floor Area**: The development entity will become an Independent Power Supplier and current legislation limits the number of erven the IPS may serve – the entire development area will be subdivided and consolidated to create four development erven, each functioning as a sectional title scheme to which rights from the basket will be allocated. It is proposed that part of the total basket of rights function as a floor area float – these rights will only be required once all approvals are in place, the detailed planning has been finalized and rights already allocated to that Precinct have been used but the additional rights fit in with the vision and the urban design guidelines. This will allow flexibility to respond to future demand changes and new land use options.
- **Threshold Planning**: The starting point is a land use base scenario for the total development on which the upper limit of service and infrastructure demands is calculated. The required infrastructure improvements for roads, civil and electrical services are agreed and captured in a service level agreement (SLA). These services thresholds, together with the development register and urban design guidelines are used to monitor land use implementation within the overall basket, allowing flexibility in the phasing, composition, and location thereof. The efficiency of the development is improved as infrastructure is implemented as and when required and allows flexibility to adjust land use combinations according to market demand without negatively impacting the broader area.

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- **Development Register:** Each implementation application will be accompanied by a Development Register Summary, Traffic Statement and Services Statement to confirm the availability of the floor area, balance of rights available and adherence to the services thresholds.
- **GBCSA Sustainable Precinct Certification:** The Certification is monitored and requires continued action in various categories which will assist in focussing the implementation on achieving its sustainability goals.
- **Development Manual and Design Review Process:** Adherence to the urban design guidelines is managed through the design review process.

6.2 BASKET OF RIGHTS

The land use rights to achieve the mixed-use development vision is summarised in **Table 1.** This basket is considered the land use base scenario:

Table 1: Basket of Rights

Precincts	Residential	Business	Industrial	Institutional	Other
	Dwelling units du	Floor Area - m²	Floor Area - m²	Floor Area - m²	Floor Area - m²
Precinct A	2 500	243 000	43 000	144 000	13 500
A1				43	3
A2	450				
A3		000	12		
A4				20	
A5	450				
Precinct B	2 500	-	-	-	-
B1	600				
B2	900				
Precinct C	-	-	75 500	-	-
Precinct D	-	10 000	15 000	-	-
Floating	1 000	35 000	40 000	24 000	17 000
Sub-Total	**6 000**	**288 000**	**193 500**	**168 000**	**30 500**
TOTAL	**6 000**				**680 000**

The Basket of Rights will be applied for incrementally according to the application schedule agreed with the Municipality. These rights will be allocated per precinct and sub-precinct and part thereof will be used as floating floor area.

Once the final land use approval is granted for the areas recently incorporated into the Klapmuts urban edge the various subdivisions will be consolidated to create four development erven that will each be registered as a sectional title scheme. No further subdivision will be required. It is the intention that the land use rights allocated to the sub-precincts of A and B can be utilised throughout the consolidated erven A & B as guided by the approved Precinct Plans, land use allocations and urban design guidelines.

The floating floor area will be allocated when the rights of a specific land use category have been allocated and the urban design concept can accommodate the additional rights or when a use that is complimentary to the predominant land use of that precinct is proposed for which provision was not made in the base land use scenario. Ultimately, provision could also be made for the reallocation of rights between the land use categories if these changes do not exceed the services thresholds planned for in the land use base scenario. These additions or changes will be done only if the development control mechanisms are satisfied and in agreement with the Stellenbosch Municipality.

6.3 PHASING AND SERVICES ROLL-OUT

The roll-out of development rights and implementation of services for this project will facilitate development within the following precincts as based on the services thresholds set out in **Table 2:**

- Precincts A1, B1, C and D
- Precincts A3 and B2
- Precincts A2, A4 and A5

The urban design framework will play an essential role in the timing and location of these rights within the precincts as the establishment of the spatial structure and key open space elements such as the central square and pedestrian boulevard are critical to the success of the project.

Table 2: Draft Rights Roll-out and Services Thresholds

Threshold	Water Demand		Sewerage	Electricity	Stormwater	Development Rights (up to)	
	AADD (up to)	Upgrades	Upgrades	Upgrades		Residential	Non-residential
1	Immediately prior to starting development, will create capacity up to 1 300kl/day	• Master plan items • SKW1.1, SKW1.2a, SKW1.2b, SKW1.12 (Supply to Lower Reservoir) • SKW1.5, SKW1.9a, SKW1.9b, SKW1.10, SKW1.11, SKW1.15, SKW1.16, SKW1.21 & SKW1.27 (Appl 1 & 2 bulk network)	• Master plan items SK2.4, SK2.5, SK2.6, SK2.7, SK2.8	• Brick-built switching substation • Primary MV cabling from Eskom 132/11kV step-down substation • Four secondary MV cable bulk supplies • 132/11kV step-down substation • new brick-built switching substation, • interlinking primary MV cabling and secondary MV cable rings	• Stormwater management plan to finalise improvements	1 577 units	118 500m²
						Applications 1 & 2	
2				• Further brick-built switching substations • Primary MV cabling from 132/11kV step-down substation and • Secondary MV cable rings		1 900 units	222 500m²
3			• Master plan items SKS2.4 to SKS2.8	• Further brick-built switching substations • Primary MV cabling from 132/11kV step-down substation and • Secondary MV cable rings	• Stormwater management plan to finalise	2 200 units	322 500m²
						Application 3	
4	1 900kl/day	• Master Plan items SKW.B1, SKW.B3 & SKW.B4		• Brick-built switching substation • Primary MV cabling from Eskom 132/11kV step-down substation • Four secondary MV cable bulk supplies		2 983 units or 2 440 units	278 700m² or 400 700m²
5	4 060kl/day	• New 12,0 ML reservoir • Further master plan items to be finalised	• SKS1.8, SKS1.13, SKS1.14, SKS5.2 & SKS5.3 • SKS1.7, SKS6.2, SKS 6.3 • SKS1.12 & SKS 7.3 • Upgrade Klapmuts WWTW	• 132/11kV step-down substation • new brick-built switching substation, • interlinking primary MV cabling and secondary MV cable rings	• Stormwater management plan to finalise	6 000 units	680 000m²
						Application 4	

Threshold	Roads	Development Rights (up to)	
	Upgrades	Residential	Non-residential
Background	• Dualling of R44 between N1 & Klapmuts-Simondium Rd • Upgrade of N1/R44 & N1/R304 interchanges • Upgrade of R304/Old Paarl Rd intersection • Left-turn lanes on two R44-approaches to R44/Klapmuts –Simondium Rd intersection		
1	• Access road link to Merchant St & roundabout at the Merchant St/access road intersection • Realignment of section of Merchant St & roundabout at the Groenfontein Rd/Merchant St intersection • Underpass-road (dual) (Klapmuts Hills Rd) between Old Paarl Rd and Merchant access road link & roundabouts • Klapmuts Hills single lane road from link Merchant access road to second industrial access (Precinct C) • Dualling of Old Paarl Rd between Groenfontein Rd and underpass road & roundabouts at intersections • Dedicated left-turn lane along the Stellengate Boulevard-approach to the R44 intersection	1 577 units	118 500m²
		Applications 1 & 2	
3	• Groenfontein Rd-interchange on N1 • Upgrade/dualling of Groenfontein Rd between interchange and Old Paarl Rd with roundabout at intersection • Dualling of Klapmuts Hills Rd between underpass-road and access road link to Merchant St • Extension of Klapmuts Hills Rd to Precinct B second access	2 200 units	322 500m²
		Application 3	
5	• To be completed following Regional Road Network Study prior to submission of Application 4	6 000 units	680 000m²
		Application 4	

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7.0 CONCLUSION

It is the intention of Stellenbosch Bridge (Pty) Ltd to develop this property over the next 15 to 20 years, fully integrated into the larger Stellenbosch spatial vision, and with the participation of its stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the communities that will live, work, innovate and socialise within the development.

Facing challenges such as climate change, diminishing city resources, rapid population growth as well as increasing traffic congestion, social divergence and socio-economic hardship, the developments of tomorrow need to be more flexible, innovative, resilient and sustainable.

The post-COVID world that we are about enter, requires a development concept that is robust and adaptable to survive and thrive in an irrevocably altered urban landscape. We cannot anticipate how the urban landscape is going to change, but we can incorporate the flexibility into the spatial framework, roll-out mechanisms, and basket of rights to allow the development to pro-actively respond to these changes.

The development intent is to create a knowledge economy-driven development set within a vibrant, mixed-use, sustainable, people-centred environment. Stellenbosch Bridge integrates the leading-edge global concepts – smart cities and innovation precincts which creates high-impact synergies that will attract innovative and high-performance companies to locate and thrive within the development. It is a place where individual brilliance and talent meets resourced establishments, venture capitalists and government support.

Stellenbosch Bridge will enhance business development and innovation through clustering, and co-location of fast-growing sectors and public and private research establishments from South Africa, Africa and the rest of the World. The emphasis on state-of-the-art technology and smart systems will ensure that Stellenbosch Bridge is the premier address to locate a business on the African continent. The accessible location of Stellenbosch Bridge will be strengthened through virtual networks that span globally.

The design of the mixed-use environment will focus on place-making, urban fit and spatial integration. The development can also contribute significantly to the transformation of Klapmuts to a location to be experienced and enjoyed at pedestrian scale.

The incorporation of liveability and sustainability is key. Liveability considers measures such as quality of life and walkability. The design of the integrated open space system enhances the liveability, making it easier move, socialize, and make meaningful connections. The aesthetics and user-friendliness of the urban spaces and open space network will be part of the attraction.

Sustainability considers ecological design and inclusive development – the ability to maintain a balance between economic, social and environmental demands – the project's social context, together with its economic potential and environmental innovation puts it in a unique position to create and maintain a world-leading position in sustainability.

Stellenbosch Bridge will facilitate investment in local people encouraging skills development, capability building and job creation. It will be an inclusive and sustainable development that will benefit its communities for generations to come. The developers have committed themselves to contributing to the improvement of the urban landscape and physical environment as well as the social upliftment and economic well-being of its communities as part of the success of this ground-breaking project.

International precedent has shown that innovation-driven, smart environments need dynamic land use management to facilitate swift reaction to rapidly changing circumstances. To achieve this requires a strong urban design concept, a clear development framework and active management within which investment, economic development and communities can flourish. By using services thresholds various land use implementation scenarios can play out within the capacity of services infrastructure.

Stellenbosch Bridge is one of the most significant and innovative mixed-use developments to be undertaken in the Western Cape in recent years.

Prepared for:

STELLENBOSCH
BRIDGE | BHULORHO | BRUG

Stellenbosch Bridge (Pty) Ltd

By:

AntonLotz
TOWN & REGIONAL PLANNING

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Osmond & Lange Architects
Legacy Environmental Management Consultants
De Villiers and Moore Consulting Engineers
UDS Africa Consulting Services
WEC Consulting Engineers
GLS Consulting
Sustnet

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ANNEXURE G


Detailed Masterplan with Aerial
Proposal
J1309

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ANNEXURE H

APPROVAL FROM THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

Western Cape Government

Department of Environmental Affairs and Development Planning
Bernadette Osborne
Development Management: Region 1
Bernadette.Osborne@westerncape.gov.za | Tel: 021 483 3679

REFERENCE: 16/3/3/1/B4/23/1030/20
NEAS REFERENCE: WCP/EIA/0000764/2020
ENQUIRIES: Bernadette Osborne
DATE OF ISSUE: 11 February 2021

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014: THE LIGHT INDUSTRIAL DEVELOPMENT AND THE EXTENSION OF MERCHANT STREET ON THE REMAINING EXTENT OF PORTION 2 OF THE FARM WELTEVREDEN NO. 744 AND ERF NO. 342, KLAPMUTS, STELLENBOSCH.

With reference to your application for the abovementioned, find below the outcome with respect to this application.

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014, the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the Preferred Layout Alternative 1 described in the Basic Assessment Report ("BAR"), dated 5 October 2020.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in section E below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Stellenbosch Bridge Properties (Pty) Ltd
c/o Mr Lorne James Dawson
Cutheberts Building
33 Plein Street
STELLENBOSCH

7600
Tel: (021) 879 2289
E-mail: lorne@stb-bridge.co.za

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as **"the holder"**.

B. ACTIVITY AUTHORISED

Listed Activity	Project Description
Listing Notice 1 – **Activity Number: 12** *The development of—* *(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or* ***(ii) infrastructure or structures with a physical footprint of 100 square metres or more;*** *where such development occurs—* ***(a) within a watercourse;*** *(b) in front of a development setback; or* ***(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —*** *excluding—* *(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;* *(bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;* *(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;* *(dd) where such development occurs within an urban area;* *(ee) where such development occurs within existing roads, road reserves or railway lines; or* *(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.*	The extension of Merchant Street on Erf No. 342, which will provide access to the site, will be located within 32m of a watercourse.

Listing Notice 1 – **Activity Number: 19** ***The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock or more than 10 cubic metres from a watercourse;*** *but excluding where such infilling, depositing, dredging, excavation, removal or moving-* *(a) Will occur behind a development setback;* *(b) Is for maintenance purposes undertaken in accordance with a maintenance management plan;* *(c) Falls within the ambit of activity 21 in this Notice, in which case that activity applies.* *(d) Occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or* *(e) Where such development is related to the development of a port or harbor, in which case activity 26 in Listing Notice 2 of 2014 applies.*	The extension of Merchant Street on Erf No. 342, which will provide access to the site, will cross a watercourse.
Listing Notice 1 – **Activity Number: 24** ***The development of a road—*** *(i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or* *(ii) **with a reserve wider than 13,5 meters**, or where no reserve exists where the road is wider than 8 metres;* *but excluding a road—* *(a) which is identified and included in activity 27 in Listing Notice 2 of 2014;* *(b) where the entire road falls within an urban area; or* *(c) which is 1 kilometre or shorter.*	The access road will have an approximate road reserve of 19.7 metres.
Listing Notice 1 – **Activity Number: 27** ***The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous***	The development will entail the clearance of more than 1 hectare of indigenous vegetation.

***vegetation**, except where such clearance if indigenous vegetation is required for –* *(i) The undertaking of linear activity; or* *(ii) Maintenance purposes undertaken in accordance with a maintenance management plan.*	
Listing Notice 1 – **Activity Number: 28** ***Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture**, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:* *(i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or* ***(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare;*** *excluding where such land has already been developed for residential, mixed, retail, commercial, industrial, or institutional purposes.*	The site has historically been used for agricultural purposes.
Listing Notice 3 – ***Activity Number: 12*** ***The clearance of an area of 300 square metres or more of indigenous vegetation** except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.* ***(i) Western Cape:*** *i. **Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;*** *ii. Within critical biodiversity areas identified in bioregional plans;*	The site contains a few indigenous plant species remaining from a mix of Swartland Alluvium Fynbos and Swartland Granite Renosterveld, which are both classified as critically endangered and Boland Granite Fynbos which is classified as endangered.

iii. *Within the littoral active zone or 100 metres inland from the high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;* iv. *On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or* v. *On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.*	

The abovementioned activities are hereinafter referred to as **"the listed activities"**.

The holder is herein authorised to undertake the following alternative that includes the listed activities:

- The development of a light industrial development consisting of 10 industrial erven on the Remainder of Portion 2 of Farm Weltevreden No. 744, Klapmuts.
- The development will cover an area of approximately 14,8 ha.
- The development includes a green corridor running through the central section of the site and two detention ponds, which will be developed for stormwater management.
- Merchant Street on Erf No. 342, Klapmuts will be extended to provide access to the site.
- The extended Merchant Street will have a road reserve of 19.7m wide and will be constructed out of culverts where it crosses over the outlet of the existing stormwater detention pond.

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken on Portion 2 of Farm No. 744 and Erf No. 342, Klapmuts and has the following co-ordinates:

	Latitude (S)	Longitude (E)
Co-ordinates:	33° 48' 45.73" South	18° 51' 28.29" East

The SG digit codes are: C05500000000074400002; and
C05500000000000000342.

Refer to Annexure 1: Locality Map and Annexure 2: Site Plan.

The above is hereinafter referred to as **"the site"**.

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Legacy Environmental Management Consulting (Pty) Ltd
c/o Mr Aubrey Withers
PO Box 1240
DIE BOORD
7613
Tel: (021) 887 4000
Email: aubrey@legacyemc.co.za

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to preferred Layout Alternative 1 described in the BAR dated 5 October 2020 on the site as described in Section C above. Should the subsequent development of the individual industries within the light industrial development trigger any listed activity not included in this Environmental Authorisation, written authorisation will be required from the competent authority prior to the undertaking of the said activity.

2. The holder must commence with the listed activities on the site within a period of **five years** from the date issue of this Environmental Authorisation.

3. The development must be concluded within **ten years** from the date of commencement of the listed activities.

4. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.

5. Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Written notice to the Competent Authority

6. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities.

   6.1 The notice must make clear reference to the site details and EIA Reference number given above.
   6.2 The notice must also include proof of compliance with the following conditions described herein:

   Conditions: 7, 8 and 12

Notification and administration of appeal

7. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–

   7.1 notify all registered Interested and Affected Parties ("I&APs") of –
   7.1.1 the outcome of the application;
   7.1.2 the reasons for the decision as included in Annexure 3;
   7.1.3 the date of the decision; and
   7.1.4 the date when the decision was issued.

   7.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, 2014 detailed in Section F below;

   7.3 draw the attention of all registered I&APs to the manner in which they may access the decision;

   7.4 provide the registered I&APs with:
   7.4.1 the name of the holder (entity) of this Environmental Authorisation,
   7.4.2 name of the responsible person for this Environmental Authorisation,
   7.4.3 postal address of the holder,
   7.4.4 telephonic and fax details of the holder,
   7.4.5 e-mail address, if any, of the holder,
   7.4.6 the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the 2014 National Appeals Regulations.

8. The listed activities, including site preparation, may not commence within 20 (twenty) calendar days from the date of issue of this Environmental Authorisation. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided.

Management of activity

9. The draft or Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.

10. The Maintenance Management Plan ("MMP") accepted as part of the EMPr must be implemented. Future maintenance activities must be undertaken in accordance with the accepted MMP.

11. The EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

12. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, before commencement of any land clearing or construction activities to ensure compliance with the provisions of the EMPr and the conditions contained herein.

13. A copy of the Environmental Authorisation, EMPr, MMP, audit reports and compliance monitoring reports must be kept at the site of the authorised activities, and must be made available to anyone on request, including a publicly accessible website.

14. Access to the site referred to in Section C above must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

15. In terms of Regulation 34 of the NEMA EIA Regulations, 2014, the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr, the MMP and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014.

    The holder must undertake an environmental audit and submit an Environmental Audit Report within three months after the engineering services have been installed. Subsequent environmental audits must be undertaken annually, and the Environmental Audit Reports must be submitted once a year to the Competent Authority for the duration of the construction phase. The final Environmental Audit

Report must be submitted to the Competent Authority within three months after the last of the industrial sites have been established.

The holder must, within 7 days of the submission of each of the above-mentioned reports to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).

Specific Conditions

16. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape.

    Heritage remains include: meteorites, archaeological and/or palaeontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; and/or graves or unmarked human burials including grave goods and/or associated burial material.

17. A qualified archaeologist and/or palaeontologist must be contracted where necessary (at the expense of the holder) to remove any heritage remains. Heritage remains can only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant heritage resources authority.

F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.

2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

3. If the holder does not commence with a listed activity within the period referred to in Condition 2, this Environmental Authorisation shall lapse for that activity, and a new application for Environmental Authorisation must be submitted to the Competent Authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the Competent Authority prior to the expiry date of the Environmental Authorisation.

4. The holder must submit an application for amendment of the Environmental Authorisation to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 must be submitted.

   Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the Competent Authority must only be notified of such changes.

5. The manner and frequency for updating the EMPr is as follows:
   Amendments to the EMPr, must be done in accordance with Regulations 35 to 37 of the EIA Regulations 2014 or any relevant legislation that may be applicable at the time.

G. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations 2014.

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date the notification of the decision was sent to the holder by the Competent Authority –

   1.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 to the Appeal Administrator; and
   1.2. Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision. -

2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date the holder of the decision sent notification of the decision to the registered I&APs–

   2.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 to the Appeal Administrator; and
   2.2 Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.

3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organ of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.

4. The appeal and the responding statement must be submitted to the address listed below:

By post:	Western Cape Ministry of Local Government, Environmental Affairs and Development Planning Private Bag X9186 CAPE TOWN 8000
By facsimile:	(021) 483 4174; or
By hand:	Attention: Mr Marius Venter (Tel: 021 483 2659) Room 809 8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to DEADP.Appeals@westerncape.gov.za..

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail DEADP.Appeals@westerncape.gov.za or URL http://www.westerncape.gov.za/eadp.

H. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

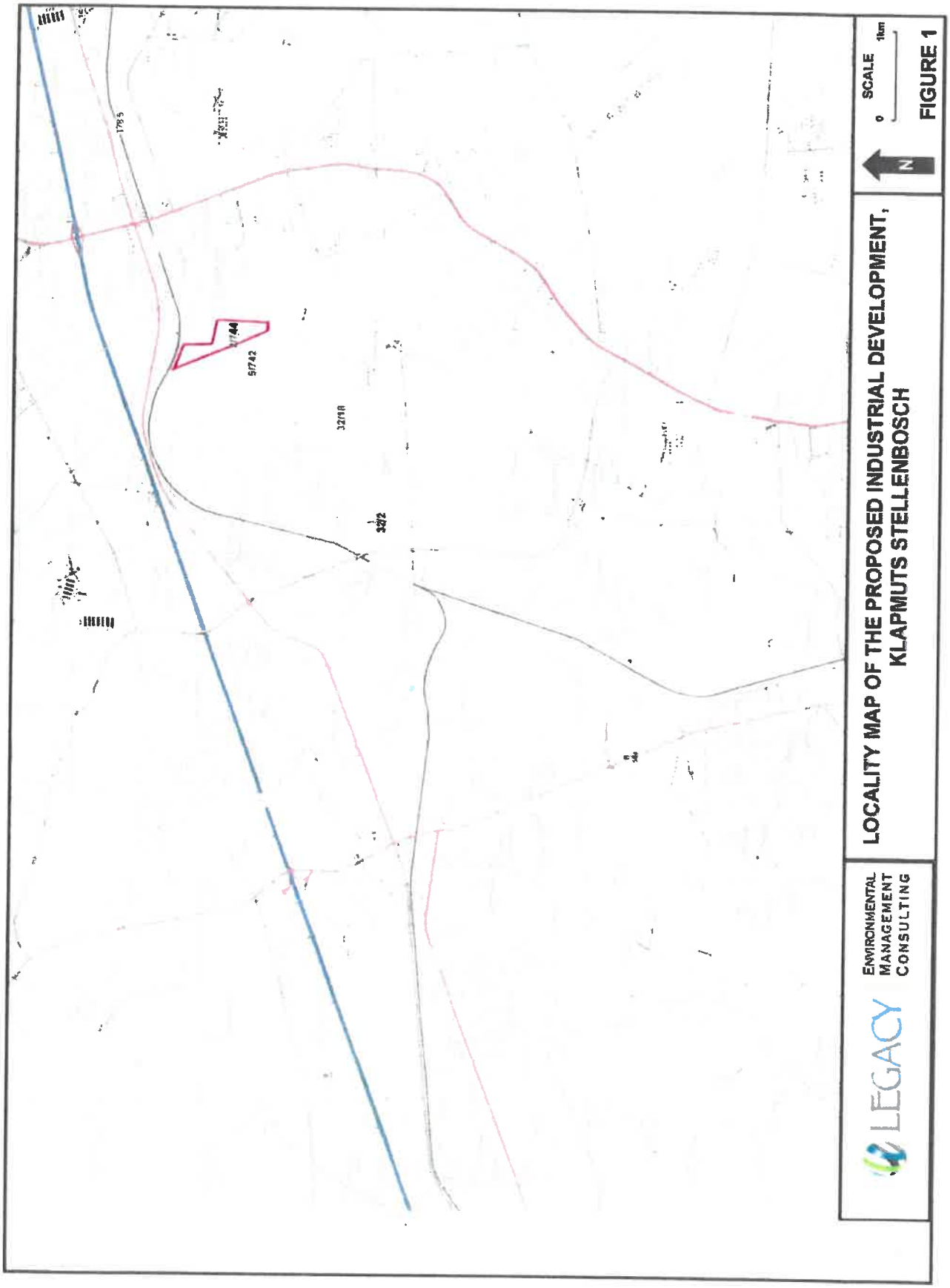
Yours faithfully

Zaahir Toefy Digitally signed by Zaahir Toefy Date: 2021.02.11 15:50:08 +02'00'

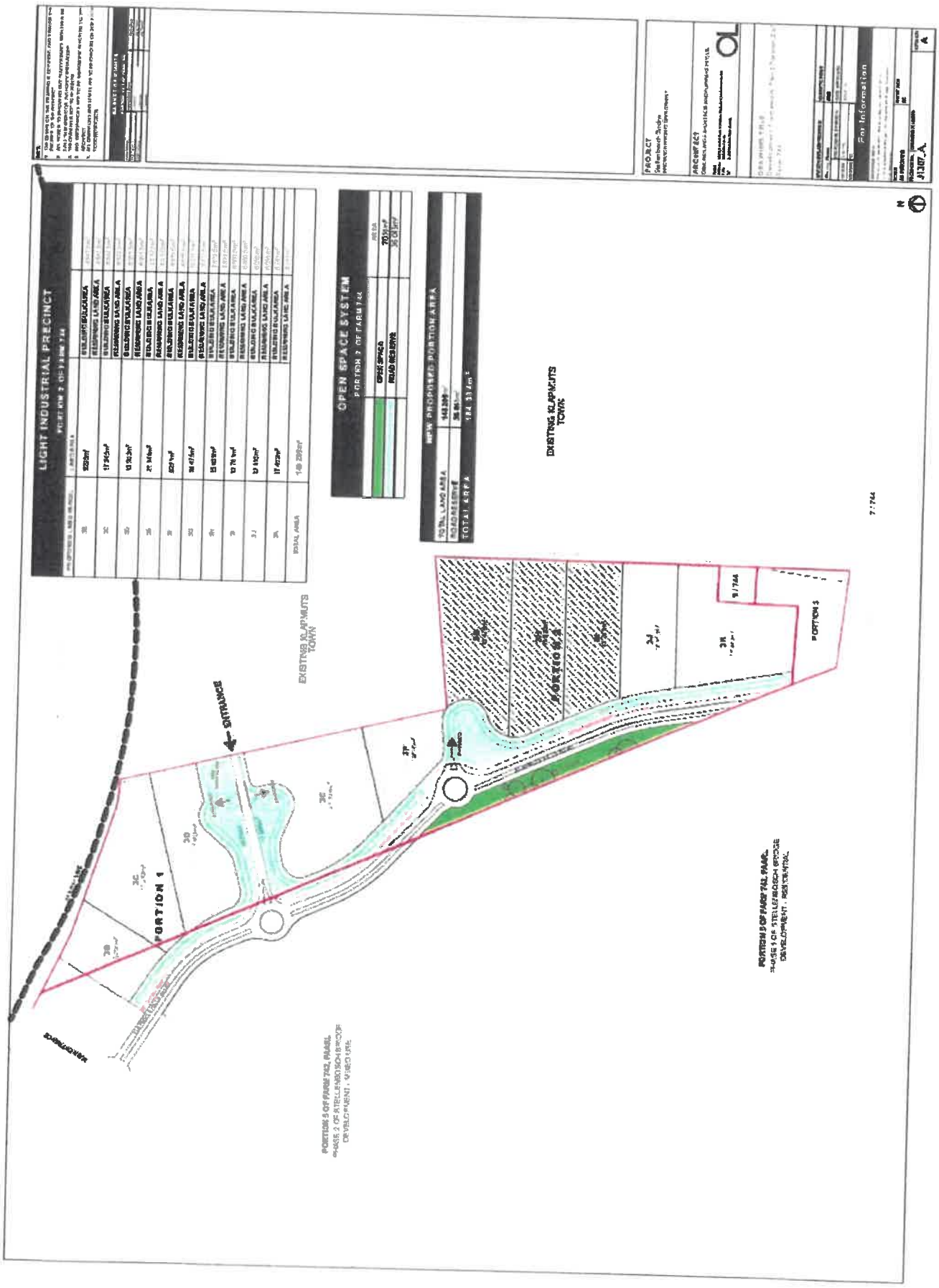
MR. ZAAHIR TOEFY
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)
DATE OF DECISION: 11 FEBRUARY 2021

Cc: (1) Mr Aubrey Withers (Legacy Environmental Management Consulting (Pty) Ltd) E-mail: aubrey@legacyemc.co.za
(2) Mr Schalk van der Merwe (Stellenbosch Municipality) E-mail: Schalk.VanderMerwe@stellenbosch.gov.za

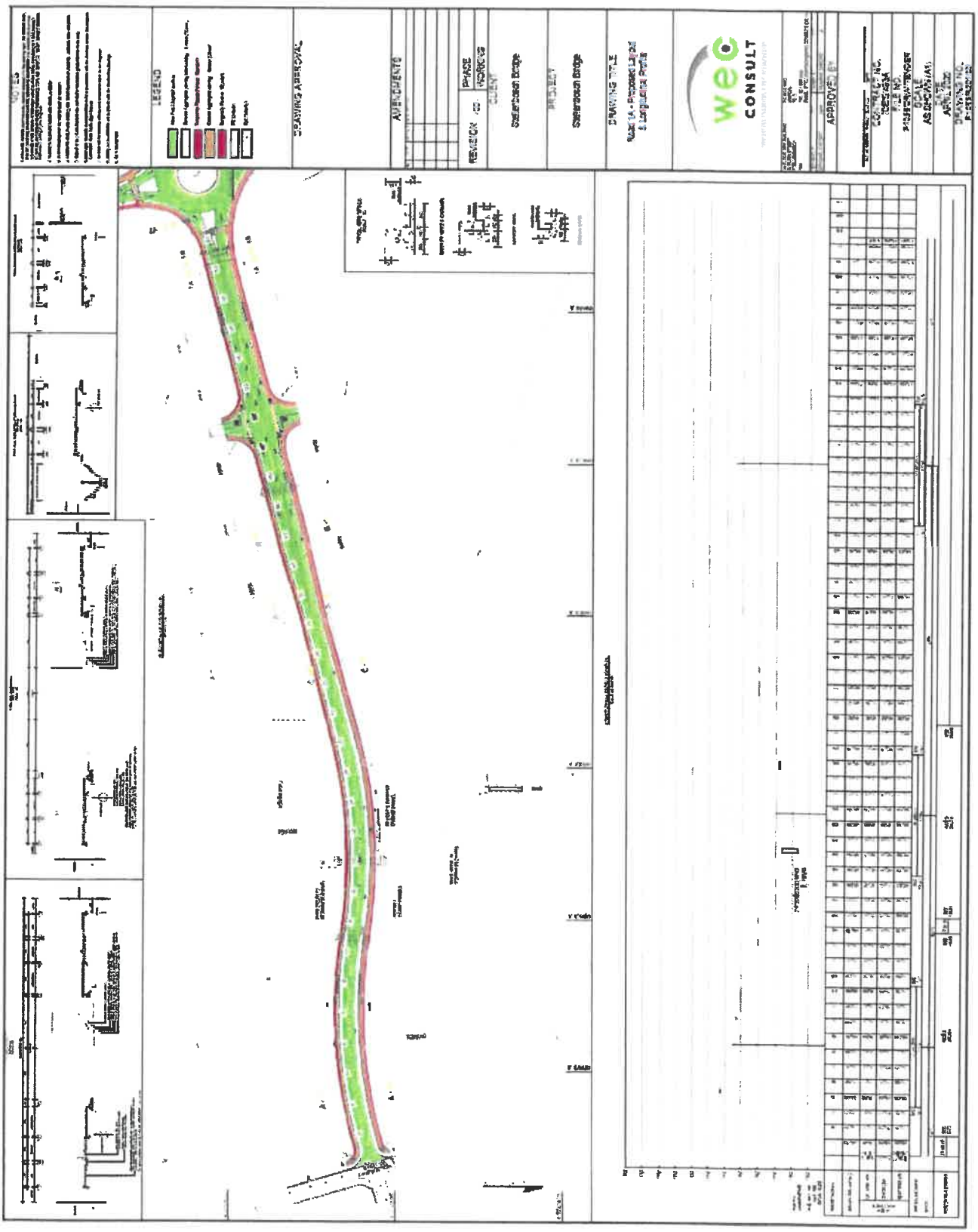
ANNEXURE 1: LOCALITY MAP



ANNEXURE 2: SITE PLAN



THE EXTENSION OF MERCHANT STREET ON ERF NO. 342 WHICH WILL PROVIDE ACCESS TO THE SITE.



ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, inter alia, the following:

a) The information contained in the Application Form and letter dated 27 July 2020, the draft Basic Assessment Report received by the Department on 3 August 2020, the EMPr (including an MMP for implementation during the operational phase) submitted together with the final Basic Assessment Report on 6 October 2020 and the additional information received between 19 December and 11 January 2021;

b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation and Alternatives (dated March 2013);

c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);

d) The comments received from I&APs and responses to these, included in the Basic Assessment Report received on 6 October 2020 and the additional information received between 19 December and 11 January 2021; and

e) The balancing of negative and positive impacts and proposed mitigation measures.

No site visits were conducted. The Competent Authority had sufficient information before it to make an informed decision without conducting a site visit.

All information presented to the Competent Authority was taken into account in the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

1. Public Participation

The public participation process included:

- identification of and engagement with I&APs;
- Notices were placed at the site and at a nearby shop;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities are to be undertaken, the municipality and ward councillor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities on 23 July 2020 and 3 August 2020;
- the placing of a newspaper advertisement in the '*EikestadNuus*' on 30 July 2020; and
- making the in-process draft BAR available for comment from 4 August 2020.

The Department is satisfied that the Public Participation Process that was followed met the minimum legal requirements and the comments raised and responses thereto were included in the comments and response report.

Specific alternatives, management and mitigation measures have been considered in this Environmental Authorisation and EMPr to adequately address the concerns raised.

2. **Alternatives**

Layout Alternatives

Layout Alternative 1 (Preferred and herewith authorised)

This alternative entails the following:

- The development of a light industrial development consisting of 10 industrial erven on the Remainder of Portion 2 of Farm Weltevreden No. 744, Klapmuts.
- The development will cover an area of approximately 14.8ha.
- The development includes a green corridor running through the central section of the site and two detention ponds, which will be developed for stormwater management.
- Merchant Street on Erf No. 342, Klapmuts will be extended to provide access to the site.
- The extended Merchant Street will have a road reserve of 19.7m wide and will be constructed out of culverts where it crosses over the outlet of the existing stormwater detention pond.

This alternative was preferred since it has taken into account the slope of the site, the visual impact from surrounding view sheds and the cultural landscape impact arising from the visual impact of the development.

Layout Alternative 2

This alternative entails the development of 16 light industrial erven on Portion 2 of Farm 744, Klapmuts. This alternative was not preferred since it will have a greater visual impact than the preferred Layout Alternative 1.

No-go Alternative

This alternative entails the current status quo, which is agricultural land which has been invaded by invasive plant species. This alternative was not preferred since it is too small to be utilised for financially feasible agricultural purposes.

3. **Impact Assessment and Mitigation measures**

3.1 Activity need and desirability

The development is in line with the provisions of the Provincial Spatial Development Framework of the Western Cape and the Stellenbosch Municipality Integrated Development Plan. The development will create employment opportunities for the surrounding community.

3.2 Biophysical Impacts

According to the Botanical Site Sensitivity Verification and Compliance Statement dated October 2020, compiled by Greg Nicolson of Capensis, the site is highly degraded to transformed due to agricultural activities, sand/laterite mining, dumping of building rubble and general waste, frequent fires and the presence of invasive plant species. The site is in a poor condition from a botanical perspective and contains no important species or habitats. The indigenous vegetation that would have occurred on the site would have

been a mix of Swartland Alluvium Fynbos and Swartland Granite Renosterveld, which are both classified as critically endangered and Boland Granite Fynbos which is classified as endangered. Most of the original vegetation has however been removed with only a few indigenous species remaining scattered on the site. Bulbs occur scattered across the site and those that were identified from their dry flowers are typically associated with degraded and seasonally wet areas. It is recommended that a search and rescue operation be conducted for the bulbs growing on the two properties. The bulbs will be transplanted in the green corridor incorporated into the development. This was included in the EMPr that is approved in Condition 9 of this Environmental Authorisation.

Small areas within the site contain indications of seasonally wet areas associated with the perched water table. A number of these sites are anthropogenic in nature, such as the overflow from the dam on the property to the west, or excavations for sand or laterite, which has resulted in depressions. No watercourses are present on Portion 2 of Farm 744, but a small stormwater detention pond which has an outlet, is present on Erf No. 342. The new access road to the site will be developed over Erf No. 342 and over the outlet of the stormwater detention pond. An application for a General Authorisation in terms of the National Water Act, 1998 (Act 38 of 1998) has been submitted to the Department of Water and Sanitation, which will further investigate the watercourse related impacts.

Furthermore, a MMP has also been compiled to address routine maintenance activities taking place in the affected stretch of the watercourse. It must be noted that the accepted maintenance activities only relate to the activities described in the MMP. The ongoing maintenance activities may therefore only be undertaken in accordance with the accepted MMP. Should any new activities and associated infrastructure, not included in the MMP, require maintenance and if any of the applicable listed activities are triggered, an Environmental Authorisation must be obtained prior to the undertaking of such activities. It remains the responsibility of the proponent to determine if any other listed activities are triggered and to ensure that the necessary Environmental Authorisation is obtained.

Negative Impacts:
The development will have a negative biophysical impact due to the loss of the limited indigenous vegetation present on the site. This impact will however be mitigated to a satisfactory level with the implementation of the recommended mitigation measures and adherence to the EMPr.

Positive impacts:
- The development will provide employment opportunities for the surrounding community.
- A search and rescue operation will be conducted for the bulbs growing on the two properties and will be transplanted in the green corridor incorporated in the development.

4. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must

guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

----------END----------

STELLENBOSCH
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MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE I

COMMENT FROM THE DEPARTMENT OF AGRICULTURE (ESLENBURG)

Western Cape Government
Agriculture

Cor Van Der Walt
LandUse Management
Email: LandUse.Elsenburg@elsenburg.com
tel: +27 21 808 5099 fax: +27 21 808 5092

OUR REFERENCE : 20/9/2/5/4/080
YOUR REFERENCE : LU/11252
ENQUIRIES : Cor van der Walt

Anton Lotz Town Planning
20 Vredehoek Ave
Vredehoek
Cape Town
8001

Att: André Roux

APPLICATION FOR REZONING, SUBDIVISION AND CONSENT USE: DIVISION PAARL PORTION 2 OF THE FARM NO 744

Your application received by our offices on the 26th of August 2020 has reference.

The Western Cape Department of Agriculture: Land Use Management has no objection against the proposed application. Please also refer to our letter dated 2014/06/05 attached.

Please note:

- That this is comment to the relevant deciding authorities in terms of the Subdivision of Agricultural Land Act 70 of 1970.

- Kindly quote the above-mentioned reference number in any future correspondence in respect of the application.

- The Department reserves the right to revise initial comments and request further information based on the information received.

Yours sincerely

Mr. C. van der Walt
LANDUSE MANAGER: LANDUSE MANAGEMENT
2020-09-16

Copies:
Stellenbosch Municipality
PO Box 17
STELLENBOSCH
7599

Directorate Land Use and Sustainable Resource Management
National Department of Agriculture
Private Bag X 120
PRETORIA
0001

Department of Environmental Affairs & Development Planning
1 Dorp Street
Cape Town
8000

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ANNEXURE J

COMMENT FROM HERITAGE WESTERN CAPE

REGISTERED MAIL

iLifa leMveli
Erfenis
Heritage

Our Ref:	HM/STELLENBOSCH/KLAPMUTS/REMAINDER OF PORTION 2 OF FARM 744
Case No.:	19110105AS1106E
Enquiries:	Andrew September
E-mail:	andrew.september@westerncape.gov.za
Tel	021 483 9543
Date:	20 November 2019

Cindy Potstiethwayt
7 Ritchie Avenue
Kenilworth
7708

RESPONSE TO NOTIFICATION OF INTENT TO DEVELOP: FINAL
In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999) and the Western Cape Provincial Gazette 6061, Notice 298 of 2003

NOTIFICATION OF INTENT TO DEVELOP: PROPOSED MIXED-USE INDSUTRIAL DEVELOPMENT ON THE REMAINDER OF PORTION 2 OF FARM 744, STELLENBOSCH BRIGE PROJECT, KLAPMUTS, STELLENBOSCH, SUBMITTED IN TERMS OF SECTION 38(8) OF THE NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)

CASE NUMBER: 19110105AS1106E

The matter above has reference.

Heritage Western Cape is in receipt of your application for the above matter received on 06 November 2019. This matter was discussed at the Heritage Officials Meeting held on 18 November 2019.

You are hereby notified that, since there is no reason to believe that the proposed development will impact on heritage resources, no further action under Section 38 of the National Heritage Resources Act (Act 25 of 1999) is required.

This decision is subject to an appeal period of 14 working days. The appeal period shall be taken from the date above. It should be noted that for an appeal to be deemed valid it must refer to the decision, it must be submitted by the due date and it must set out the grounds of the appeal. Appeals must be addressed to the official named above and it is the responsibility of the appellant to confirm that the appeal has been received within the appeal period.

Applicants are strongly advised to review and adhere to the time limits contained the Standard Operational Procedure (SOP) between DEADP and HWC. The SOP can be found using the following link http://www.hwc.org.za/node/293

However, should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately and Heritage Western Cape must be notified without delay.

HWC reserves the right to request additional information as required.

Should you have any further queries, please contact the official above and quote the case number.

Yours faithfully

pp.
Dr Mxolisi Dlamini
Chief Executive Officer, Heritage Western Cape

Street Address • Tel • E-mail • Postal Address
Straatadres • Tel • E-pos • Posadres
Idilesi yendawo • Idilesi yeposi

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK

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ANNEXURE K

COMMENT FROM THE DEPARTMENT OF TRANSPORT AND PUBLIC WORKS

Western Cape Government

Department of Environmental Affairs and Development Planning
Bernadette Osborne
Development Management: Region 1
Bernadette.Osborne@westerncape.gov.za | Tel: 021 483 3679

REFERENCE: 16/3/3/1/B4/23/1030/20
ENQUIRIES: BERNADETTE OSBORNE
DATE OF ISSUE: 11 FEBRUARY 2021

The Board of Directors
Stellenbosch Bridge Properties (Pty) Ltd
Cutheberts Building
33 Plein Street
STELLENBOSCH
7600

Attention: Mr Lorne James Dawson

Tel: (021) 879 2289
E-mail: lorne@stb-bridge.co.za

Dear Sir

APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) THE ENVIRONMENTAL IMPACT ASSESSMENT ("EIA") REGULATIONS, 2014: THE LIGHT INDUSTRIAL DEVELOPMENT AND THE EXTENSION OF MERCHANT STREET ON REMAINING EXTENT OF PORTION 2 OF THE FARM WELTEVREDEN NO. 744 AND ERF NO. 342, KLAPMUTS, STELLENBOSCH.

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** Environmental Authorisation, attached herewith, together with the reasons for the decision.

2. In terms of Regulation 4 of the EIA Regulations, 2014, you are instructed to ensure, within 14 days of the date of the Environmental Authorisation, that all registered interested and affected parties ("I&APs") are provided with access to and reasons for the decision, and that all registered I&APs are notified of their right to appeal.

3. Your attention is drawn to Chapter 2 of the Appeal Regulations, 2014, which prescribes the appeal procedure to be followed. This procedure is summarised in the attached Environmental Authorisation.

Yours faithfully

Zaahir Toefy
Digitally signed by Zaahir Toefy
Date: 2021.02.11 15:52:15 +02'00'

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

Cc: (1) Mr Aubrey Withers (Legacy Environmental Management Consulting (Pty) Ltd) E-mail: aubrey@legacyemc.co.za
(2) Mr Schalk van der Merwe (Stellenbosch Municipality) E-mail: Schalk.VanderMerwe@stellenbosch.gov.za

Western Cape Government

Department of Environmental Affairs and Development Planning
Bernadette Osborne
Development Management: Region 1
Bernadette.Osborne@westerncape.gov.za | Tel: 021 483 3679

REFERENCE: 16/3/3/1/B4/23/1030/20
NEAS REFERENCE: WCP/EIA/0000764/2020
ENQUIRIES: Bernadette Osborne
DATE OF ISSUE: 11 February 2021

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014: THE LIGHT INDUSTRIAL DEVELOPMENT AND THE EXTENSION OF MERCHANT STREET ON THE REMAINING EXTENT OF PORTION 2 OF THE FARM WELTEVREDEN NO. 744 AND ERF NO. 342, KLAPMUTS, STELLENBOSCH.

With reference to your application for the abovementioned, find below the outcome with respect to this application.

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014, the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the Preferred Layout Alternative 1 described in the Basic Assessment Report ("BAR"), dated 5 October 2020.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in section E below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Stellenbosch Bridge Properties (Pty) Ltd
c/o Mr Lorne James Dawson
Cutheberts Building
33 Plein Street
STELLENBOSCH

7600
Tel: (021) 879 2289
E-mail: lorne@stb-bridge.co.za

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as **"the holder"**.

B. ACTIVITY AUTHORISED

Listed Activity	Project Description
Listing Notice 1 – **Activity Number: 12** *The development of—* *(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or* ***(ii) infrastructure or structures with a physical footprint of 100 square metres or more;*** *where such development occurs—* ***(a) within a watercourse;*** *(b) in front of a development setback; or* ***(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —*** *excluding—* *(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;* *(bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;* *(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;* *(dd) where such development occurs within an urban area;* *(ee) where such development occurs within existing roads, road reserves or railway lines; or* *(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.*	The extension of Merchant Street on Erf No. 342, which will provide access to the site, will be located within 32m of a watercourse.

Listing Notice 1 – **Activity Number: 19** ***The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock or more than 10 cubic metres from a watercourse;*** *but excluding where such infilling, depositing, dredging, excavation, removal or moving-* *(a) Will occur behind a development setback;* *(b) Is for maintenance purposes undertaken in accordance with a maintenance management plan;* *(c) Falls within the ambit of activity 21 in this Notice, in which case that activity applies.* *(d) Occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or* *(e) Where such development is related to the development of a port or harbor, in which case activity 26 in Listing Notice 2 of 2014 applies.*	The extension of Merchant Street on Erf No. 342, which will provide access to the site, will cross a watercourse.
Listing Notice 1 – **Activity Number: 24** ***The development of a road—*** *(i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or* *(ii) **with a reserve wider than 13,5 meters**, or where no reserve exists where the road is wider than 8 metres;* *but excluding a road—* *(a) which is identified and included in activity 27 in Listing Notice 2 of 2014;* *(b) where the entire road falls within an urban area; or* *(c) which is 1 kilometre or shorter.*	The access road will have an approximate road reserve of 19.7 metres.
Listing Notice 1 – **Activity Number: 27** ***The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous***	The development will entail the clearance of more than 1 hectare of indigenous vegetation.

vegetation, *except where such clearance if indigenous vegetation is required for –* *(i) The undertaking of linear activity; or* *(ii) Maintenance purposes undertaken in accordance with a maintenance management plan.*	
Listing Notice 1 – **Activity Number: 28** ***Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture,*** *game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:* *(i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or* ***(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare;*** *excluding where such land has already been developed for residential, mixed, retail, commercial, industrial, or institutional purposes.*	The site has historically been used for agricultural purposes.
Listing Notice 3 – ***Activity Number: 12*** ***The clearance of an area of 300 square metres or more of indigenous vegetation*** *except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.* ***(i) Western Cape:*** ***i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;*** *ii. Within critical biodiversity areas identified in bioregional plans;*	The site contains a few indigenous plant species remaining from a mix of Swartland Alluvium Fynbos and Swartland Granite Renosterveld, which are both classified as critically endangered and Boland Granite Fynbos which is classified as endangered.

iii. *Within the littoral active zone or 100 metres inland from the high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;* iv. *On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or* v. *On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.*	

The abovementioned activities are hereinafter referred to as **"the listed activities"**.

The holder is herein authorised to undertake the following alternative that includes the listed activities:

- The development of a light industrial development consisting of 10 industrial erven on the Remainder of Portion 2 of Farm Weltevreden No. 744, Klapmuts.
- The development will cover an area of approximately 14,8 ha.
- The development includes a green corridor running through the central section of the site and two detention ponds, which will be developed for stormwater management.
- Merchant Street on Erf No. 342, Klapmuts will be extended to provide access to the site.
- The extended Merchant Street will have a road reserve of 19.7m wide and will be constructed out of culverts where it crosses over the outlet of the existing stormwater detention pond.

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken on Portion 2 of Farm No. 744 and Erf No. 342, Klapmuts and has the following co-ordinates:

	Latitude (S)	Longitude (E)
Co-ordinates:	33° 48' 45.73" South	18° 51' 28.29" East

The SG digit codes are: C05500000000074400002; and
C05500000000000000342.

Refer to Annexure 1: Locality Map and Annexure 2: Site Plan.

The above is hereinafter referred to as "**the site**".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Legacy Environmental Management Consulting (Pty) Ltd
c/o Mr Aubrey Withers
PO Box 1240
DIE BOORD
7613
Tel: (021) 887 4000
Email: aubrey@legacyemc.co.za

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to preferred Layout Alternative 1 described in the BAR dated 5 October 2020 on the site as described in Section C above. Should the subsequent development of the individual industries within the light industrial development trigger any listed activity not included in this Environmental Authorisation, written authorisation will be required from the competent authority prior to the undertaking of the said activity.

2. The holder must commence with the listed activities on the site within a period of **five years** from the date issue of this Environmental Authorisation.

3. The development must be concluded within **ten years** from the date of commencement of the listed activities.

4. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.

5. Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Written notice to the Competent Authority

6. Seven calendar days' notice, in writing, must be given to the Competent Authority before commencement of construction activities.

   6.1 The notice must make clear reference to the site details and EIA Reference number given above.

   6.2 The notice must also include proof of compliance with the following conditions described herein:

   Conditions: 7, 8 and 12

Notification and administration of appeal

7. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–

   7.1 notify all registered Interested and Affected Parties ("I&APs") of –
   7.1.1 the outcome of the application;
   7.1.2 the reasons for the decision as included in Annexure 3;
   7.1.3 the date of the decision; and
   7.1.4 the date when the decision was issued.

   7.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, 2014 detailed in Section F below;

   7.3 draw the attention of all registered I&APs to the manner in which they may access the decision;

   7.4 provide the registered I&APs with:
   7.4.1 the name of the holder (entity) of this Environmental Authorisation,
   7.4.2 name of the responsible person for this Environmental Authorisation,
   7.4.3 postal address of the holder,
   7.4.4 telephonic and fax details of the holder,
   7.4.5 e-mail address, if any, of the holder,
   7.4.6 the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the 2014 National Appeals Regulations.

8. The listed activities, including site preparation, may not commence within 20 (twenty) calendar days from the date of issue of this Environmental Authorisation. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided.

Management of activity

9. The draft or Environmental Management Programme ("EMPr") submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.

10. The Maintenance Management Plan ("MMP") accepted as part of the EMPr must be implemented. Future maintenance activities must be undertaken in accordance with the accepted MMP.

11. The EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

12. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, before commencement of any land clearing or construction activities to ensure compliance with the provisions of the EMPr and the conditions contained herein.

13. A copy of the Environmental Authorisation, EMPr, MMP, audit reports and compliance monitoring reports must be kept at the site of the authorised activities, and must be made available to anyone on request, including a publicly accessible website.

14. Access to the site referred to in Section C above must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

15. In terms of Regulation 34 of the NEMA EIA Regulations, 2014, the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation, the EMPr, the MMP and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014.

    The holder must undertake an environmental audit and submit an Environmental Audit Report within three months after the engineering services have been installed. Subsequent environmental audits must be undertaken annually, and the Environmental Audit Reports must be submitted once a year to the Competent Authority for the duration of the construction phase. The final Environmental Audit

Report must be submitted to the Competent Authority within three months after the last of the industrial sites have been established.

The holder must, within 7 days of the submission of each of the above-mentioned reports to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).

Specific Conditions

16. Should any heritage remains be exposed during excavations or any other actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape. Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape.

    Heritage remains include: meteorites, archaeological and/or palaeontological remains (including fossil shells and trace fossils); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features with heritage significance; rock art and rock engravings; and/or graves or unmarked human burials including grave goods and/or associated burial material.

17. A qualified archaeologist and/or palaeontologist must be contracted where necessary (at the expense of the holder) to remove any heritage remains. Heritage remains can only be disturbed by a suitably qualified heritage specialist working under a directive from the relevant heritage resources authority.

F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.

2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

3. If the holder does not commence with a listed activity within the period referred to in Condition 2, this Environmental Authorisation shall lapse for that activity, and a new application for Environmental Authorisation must be submitted to the Competent Authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the Competent Authority prior to the expiry date of the Environmental Authorisation.

4. The holder must submit an application for amendment of the Environmental Authorisation to the Competent Authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the EIA Regulations, 2014 must be submitted.

   Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the Competent Authority must only be notified of such changes.

5. The manner and frequency for updating the EMPr is as follows:
   Amendments to the EMPr, must be done in accordance with Regulations 35 to 37 of the EIA Regulations 2014 or any relevant legislation that may be applicable at the time.

G. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations 2014.

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date the notification of the decision was sent to the holder by the Competent Authority –

   1.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 to the Appeal Administrator; and
   1.2. Submit a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision. -

2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date the holder of the decision sent notification of the decision to the registered I&APs–

   2.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations 2014 to the Appeal Administrator; and
   2.2 Submit a copy of the appeal to the holder of the decision, any registered I&AP, any Organ of State with interest in the matter and the decision-maker i.e. the Competent Authority that issued the decision.

3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered I&AP and the Organ of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.

4. The appeal and the responding statement must be submitted to the address listed below:

   By post: Western Cape Ministry of Local Government, Environmental Affairs and Development Planning
   Private Bag X9186
   CAPE TOWN
   8000

   By facsimile: (021) 483 4174; or
   By hand: Attention: Mr Marius Venter (Tel: 021 483 2659)
   Room 809
   8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

   Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to DEADP.Appeals@westerncape.gov.za..

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from Appeal Authority at: Tel. (021) 483 3721, E-mail DEADP.Appeals@westerncape.gov.za or URL http://www.westerncape.gov.za/eadp.

H. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

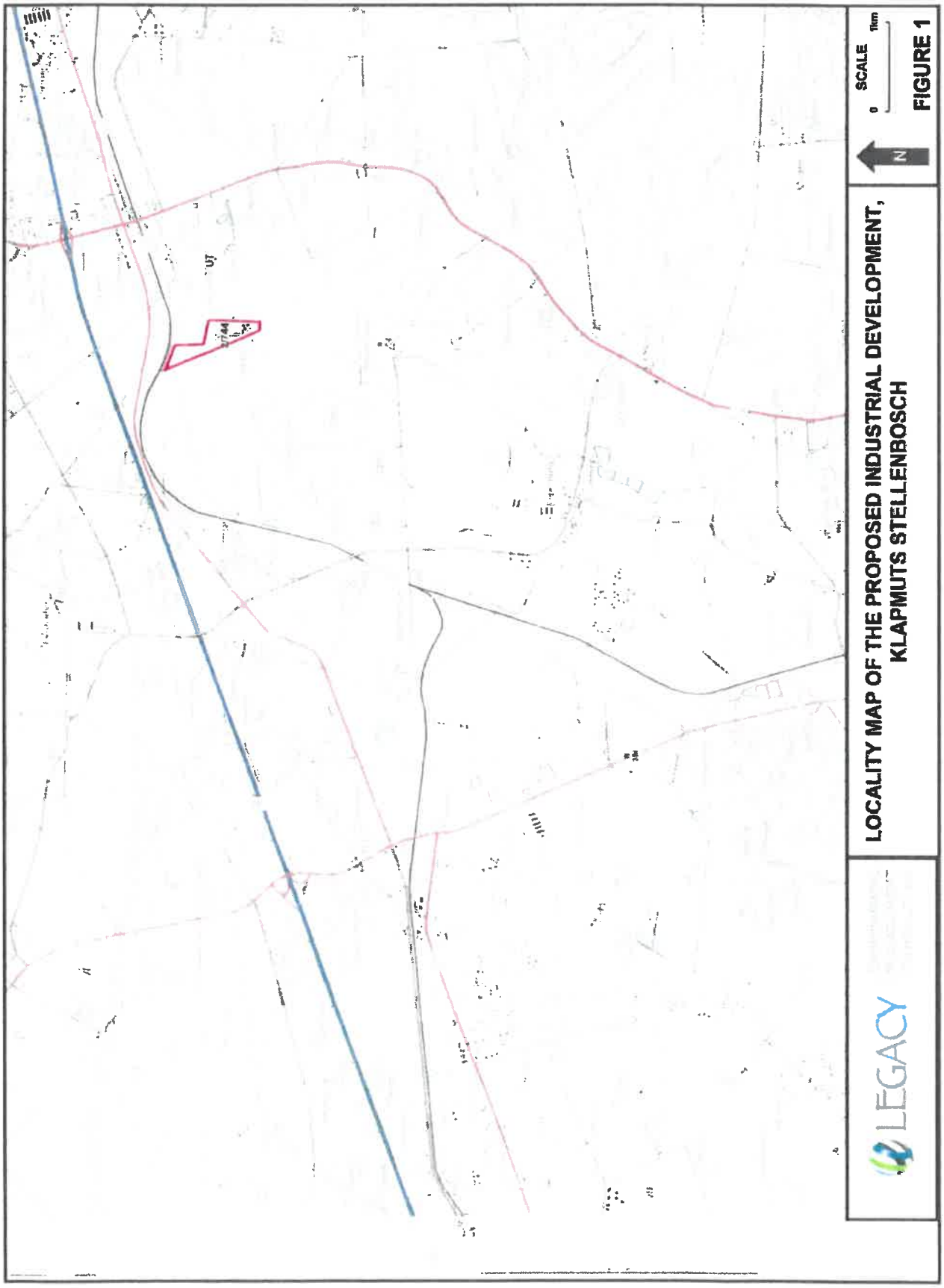
Yours faithfully

Zaahir Toefy Digitally signed by Zaahir Toefy Date: 2021.02.11 15:50:08 +02'00'

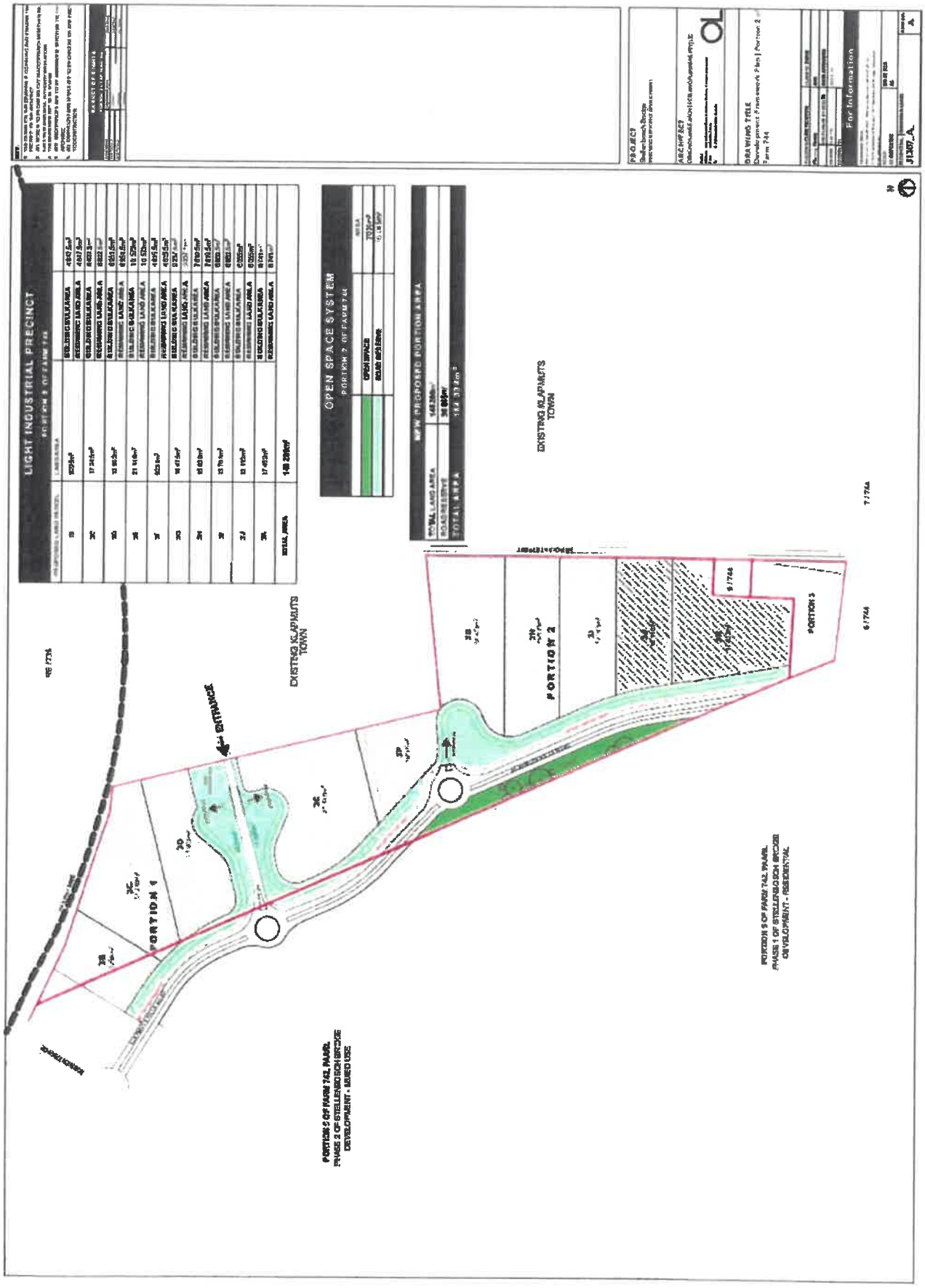
MR. ZAAHIR TOEFY
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)
DATE OF DECISION: 11 FEBRUARY 2021

Cc: (1) Mr Aubrey Withers (Legacy Environmental Management Consulting (Pty) Ltd) E-mail: aubrey@legacyemc.co.za
(2) Mr Schalk van der Merwe (Stellenbosch Municipality) E-mail: Schalk.VanderMerwe@stellenbosch.gov.za

ANNEXURE 1: LOCALITY MAP



ANNEXURE 2: SITE PLAN



THE EXTENSION OF MERCHANT STREET ON ERF NO. 342 WHICH WILL PROVIDE ACCESS TO THE SITE.

ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, inter alia, the following:

a) The information contained in the Application Form and letter dated 27 July 2020, the draft Basic Assessment Report received by the Department on 3 August 2020, the EMPr (including an MMP for implementation during the operational phase) submitted together with the final Basic Assessment Report on 6 October 2020 and the additional information received between 19 December and 11 January 2021;

b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation and Alternatives (dated March 2013);

c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);

d) The comments received from I&APs and responses to these, included in the Basic Assessment Report received on 6 October 2020 and the additional information received between 19 December and 11 January 2021; and

e) The balancing of negative and positive impacts and proposed mitigation measures.

No site visits were conducted. The Competent Authority had sufficient information before it to make an informed decision without conducting a site visit.

All information presented to the Competent Authority was taken into account in the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

1. **Public Participation**

The public participation process included:

- identification of and engagement with I&APs;
- Notices were placed at the site and at a nearby shop;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities are to be undertaken, the municipality and ward councillor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities on 23 July 2020 and 3 August 2020;
- the placing of a newspaper advertisement in the '*EikestadNuus*' on 30 July 2020; and
- making the in-process draft BAR available for comment from 4 August 2020.

The Department is satisfied that the Public Participation Process that was followed met the minimum legal requirements and the comments raised and responses thereto were included in the comments and response report.

Specific alternatives, management and mitigation measures have been considered in this Environmental Authorisation and EMPr to adequately address the concerns raised.

2. **Alternatives**

Layout Alternatives

Layout Alternative 1 (Preferred and herewith authorised)

This alternative entails the following:

- The development of a light industrial development consisting of 10 industrial erven on the Remainder of Portion 2 of Farm Weltevreden No. 744, Klapmuts.
- The development will cover an area of approximately 14.8ha.
- The development includes a green corridor running through the central section of the site and two detention ponds, which will be developed for stormwater management.
- Merchant Street on Erf No. 342, Klapmuts will be extended to provide access to the site.
- The extended Merchant Street will have a road reserve of 19.7m wide and will be constructed out of culverts where it crosses over the outlet of the existing stormwater detention pond.

This alternative was preferred since it has taken into account the slope of the site, the visual impact from surrounding view sheds and the cultural landscape impact arising from the visual impact of the development.

Layout Alternative 2

This alternative entails the development of 16 light industrial erven on Portion 2 of Farm 744, Klapmuts. This alternative was not preferred since it will have a greater visual impact than the preferred Layout Alternative 1.

No-go Alternative

This alternative entails the current status quo, which is agricultural land which has been invaded by invasive plant species. This alternative was not preferred since it is too small to be utilised for financially feasible agricultural purposes.

3. **Impact Assessment and Mitigation measures**

3.1 Activity need and desirability

The development is in line with the provisions of the Provincial Spatial Development Framework of the Western Cape and the Stellenbosch Municipality Integrated Development Plan. The development will create employment opportunities for the surrounding community.

3.2 Biophysical Impacts

According to the Botanical Site Sensitivity Verification and Compliance Statement dated October 2020, compiled by Greg Nicolson of Capensis, the site is highly degraded to transformed due to agricultural activities, sand/laterite mining, dumping of building rubble and general waste, frequent fires and the presence of invasive plant species. The site is in a poor condition from a botanical perspective and contains no important species or habitats. The indigenous vegetation that would have occurred on the site would have

been a mix of Swartland Alluvium Fynbos and Swartland Granite Renosterveld, which are both classified as critically endangered and Boland Granite Fynbos which is classified as endangered. Most of the original vegetation has however been removed with only a few indigenous species remaining scattered on the site. Bulbs occur scattered across the site and those that were identified from their dry flowers are typically associated with degraded and seasonally wet areas. It is recommended that a search and rescue operation be conducted for the bulbs growing on the two properties. The bulbs will be transplanted in the green corridor incorporated into the development. This was included in the EMPr that is approved in Condition 9 of this Environmental Authorisation.

Small areas within the site contain indications of seasonally wet areas associated with the perched water table. A number of these sites are anthropogenic in nature, such as the overflow from the dam on the property to the west, or excavations for sand or laterite, which has resulted in depressions. No watercourses are present on Portion 2 of Farm 744, but a small stormwater detention pond which has an outlet, is present on Erf No. 342. The new access road to the site will be developed over Erf No. 342 and over the outlet of the stormwater detention pond. An application for a General Authorisation in terms of the National Water Act, 1998 (Act 38 of 1998) has been submitted to the Department of Water and Sanitation, which will further investigate the watercourse related impacts.

Furthermore, a MMP has also been compiled to address routine maintenance activities taking place in the affected stretch of the watercourse. It must be noted that the accepted maintenance activities only relate to the activities described in the MMP. The ongoing maintenance activities may therefore only be undertaken in accordance with the accepted MMP. Should any new activities and associated infrastructure, not included in the MMP, require maintenance and if any of the applicable listed activities are triggered, an Environmental Authorisation must be obtained prior to the undertaking of such activities. It remains the responsibility of the proponent to determine if any other listed activities are triggered and to ensure that the necessary Environmental Authorisation is obtained.

Negative Impacts:
The development will have a negative biophysical impact due to the loss of the limited indigenous vegetation present on the site. This impact will however be mitigated to a satisfactory level with the implementation of the recommended mitigation measures and adherence to the EMPr.

Positive impacts:

- The development will provide employment opportunities for the surrounding community.
- A search and rescue operation will be conducted for the bulbs growing on the two properties and will be transplanted in the green corridor incorporated in the development.

4. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must

guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

----------END----------

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE L

COMMENT FROM MANAGER: SPATIAL PLANNING

STELLENBOSCH

STELLENBOSCH • PNIEL • FRANSCHHOEK

MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

Spatial Planning, Heritage and Environment

To	:	**Manager: Development Management**
From	:	**Manager: Spatial Planning**
Reference	:	**FARMS 742/5, 742, 744/2, ERF 1515 KLAPMUTS, STELLENBOSCH BRIDGE**
Date	:	**16 February 2021**
Re	:	**VARIOUS APPLICATIONS IN KLAPMUTS**

I refer to your request for comment on the above application as well as several meetings in person.

BACKGROUND

Located as it is on the N1 transport corridor – which carries 93% of metropolitan bound freight traffic – Klapmuts is a potentially significant centre for economic activity and residence within the metropolitan region and Stellenbosch Municipal area (as identified in the GCM RSIF). To date, the settlement is characterized by residential use and limited commercial and work-related activity. Public sector resource constraints have prevented the infrastructure investment required to enable and unlock the full potential of the area for private sector economic development as envisaged in the GCM RSIF.

The Stellenbosch MSDF (2019) designated Klapmuts as the secondary growth node to the town of Stellenbosch. The Stellenbosch Municipality supported the creation of an innovation precinct as the new core of the Klapmuts node and allowed this vision to guide their decisions on the Klapmuts urban edge and spatial budget. have been through application processes and have development rights and others that only recently were incorporated into the Klapmuts urban edge and still need to be subjected to the various application processes.

Significant progress has been made in planning for a "Innovation Precinct" or "Smart City" district west of but contiguous to Klapmuts south. This includes a land agreement with the University of Stellenbosch to possibly establish university related activities in this area. The urban edge has been adjusted in recognition of the opportunity associated with this initiative.

This application is the first step of many to obtain the land use rights to start with the development, although the area was included in the MSDF and identified as a "catalytic project" which should receive focussed attention from the municipality and in terms of the Capital Expenditure Framework (CEF) to enable the substantial development to take place over the next decade or two.

KLAPMUTS IN CONTEXT

Klapmuts is located within the Stellenbosch Local Municipality, adjacent to the N1 (between Cape Town and Paarl) and the R44 (between Stellenbosch and Paarl). It is approximately 50km from Cape Town, ±15km north of the Stellenbosch CBD, ±15km south-west of the Paarl CBD and ±30km north-west of Franschhoek, along the N1 highway. It is a hamlet that is home to approximately 7703 people (2011 census) and surrounded by the rural areas commonly referred to as the Cape Winelands. The Stellenbosch municipal boundary (in relation to Klapmuts) is now the N1. The land north of the N1 (previously part of the Klapmuts area), therefore, falls within the area of jurisdiction of the Drakenstein Municipality.

Various local spatial plans were drafted for the hamlet focussing mainly on the settlement in isolation with a view to grow the settlement in a balanced way and to address various backlogs related to housing and bulk services.

The municipality first realised during the drafting of a Spatial Perspective for Stellenbosch that Klapmuts has enormous potential for growth. The Spatial Perspective proposed inter alia the following:

- Protect, maintain, renew, and enrich some settlements through containment, increased opportunity (selective infill), making critical connections, and removing conflicts.
- Create new places of opportunity, building on the "energy" of existing infrastructure.
- Protect the historic core of Stellenbosch, Franschhoek, and the Dwarsrivier complex.
- Protect the rural and agricultural areas which are sensitive e.g., Idasvalley, Jonkershoek, Dwarsrivier en Franschhoek!
- Enable the development and dignified expression of new cultures.

To achieve this, the following strategy was proposed:

- Promote a system of large and small interdependent settlements fulfilling specific functions, each with inherent opportunity. (Nodal development)
- Grow settlements linked to regional movement systems (tap available energy along "external" linkages to the regional economy).
- Maintain the links between each settlement and surrounding agriculture/ nature areas.
- Ensure "choice" in each (different housing types, a range of facilities, urban agriculture)
- Establish limits to growth for each settlement ("urban edges within edges")

The proposed Spatial Perspective is illustrated in **FIGURE 1** below.

FIG 1. Spatial Perspective

Following the spatial perspective (which was approved by Council) the view that Klapmuts remains a rural hamlet was replaced with an understanding that the settlement has enormous potential for growth and could alleviate development pressure in more environmentally and culturally sensitive areas and could potentially absorb substantial growth whilst it can by linked by road and rail to other settlements in Stellenbosch.

Subsequent investigations and plans recognized that Klapmuts can be viewed as a settlement that have regional growth potential due to its strategic location next to the N1 and railway line. The Provincial Spatial Development Framework (PSDF) and the Greater Cape Metro Regional Spatial Implementation Framework (RSIF) also gave recognition to the potential of Klapmuts by identifying it as a settlement of regional importance.

Through the latter planning policies Klapmuts is therefore not only recognized as area with great growth potential as seen from a Stellenbosch perspective but also one that has regional aspirations.

POLICY CONTEXT

1. NATIONAL POLICY

The National Development Plan's (NDP) key objectives to be achieved by the year 2030 are to eliminate income poverty and reduce inequality. The following NDP spatial priorities are relevant to the planning of Klapmuts:

a) Urban and Rural Transformation:
Spatial transformation is advocated given the enormous costs imposed by existing spatial divides. The NDP recognises that achieving this is a complex long-term process. The NDP's human settlement targets are: more people living closer to their places of work; better quality public transport; and more jobs in proximity to townships. To achieve these targets, it advocates strong measures to prevent further development of housing in marginal places, increased urban densities to support public transport, incentivising economic activity in and adjacent to townships; and engaging the private sector in the gap housing market. The NDP also targets the development of a more inclusive and integrated rural economy. Its rural strategy is based on land reform, agrarian transformation, livelihood and employment creation, and strong environmental safeguards.

b) Improving Infrastructure:
The NDP identifies infrastructure as essential for development and prioritises upgrading informal settlements on suitably located land; rolling out public transport systems; improving freight logistics; augmenting water supplies; diversifying the energy mix towards gas (i.e., imported liquid natural gas and finding domestic gas reserves) and renewables; and rolling-out broadband access.

c) Building Environmental Sustainability and Resilience:
"South Africa's primary approach to adapting to climate change is to strengthen the nation's economic and societal resilience. This includes ensuring that all sectors of society are more resilient to the future impacts of climate-change by decreasing poverty and inequality; creating employment; increasing levels of education and promoting skills development; improving health care and maintaining the integrity of ecosystems and the many services that they provide" [NDP 2012, p209]. The long-term strategy is to transition to a low carbon economy.

Integrated Urban Development Framework (IUDF)

The 2016 Integrated Urban Development Framework (IUDF) is another key national policy that informed the planning of Klapmuts. The IUDF steers urban growth towards a sustainable model of compact, connected and coordinated towns and cities. The IUDF provides a roadmap to implement the NDP's vision for spatial transformation – creating liveable, inclusive, and resilient towns and cities while reversing apartheid's spatial legacy. To achieve this transformative vision, the IUDF sets four strategic goals:

1. Spatial integration - To forge new spatial forms in settlement, transport, social and economic areas.

2. Inclusion and access - To ensure people have access to social and economic services, opportunities, and choices.
3. Growth - To harness urban dynamism for inclusive, sustainable economic growth and development.
4. Governance - To enhance the capacity of the state and its citizens to work together to achieve spatial and social integration.

In the case of city-regions the IUDF advocates plans to forge a shared vision and spatial agenda. Provincial government, specifically the Office of the Premier, is targeted with the responsibility of facilitating collaborative planning and intergovernmental delivery. The RSIF for the Greater Cape Metro region has been prepared in accordance with this mandate.

2. PROVINCIAL POLICY

Provincial Strategic Plan

The RSIF builds-on the Provincial Strategic Plan (PSP 2015) and gives regional expression to achieving the Western Cape's Provincial Strategic Goals (PSGs), namely:

PSG 1: Create opportunities for growth and jobs.
PSG 2: Improve educational outcomes and opportunities for youth development.
PSG 3: Increase wellness, safety and tackle social ills.
PSG 4: Enable a resilient, sustainable, quality, and inclusive living environment.
PSG 5: Embed good governance and integrated service delivery through partnerships and spatial alignment.

Provincial Spatial Development Framework (PSDF)

The Provincial Spatial Development Framework (PSDF 2014) gives spatial expression to the PSP and takes the Western Cape on a path towards:

- More inclusivity, productivity, competitiveness, and opportunities in its urban and rural space-economies.
- Better protection of its placed based (i.e., spatial) assets.
- Strengthened resilience of its natural and built environments; and
- Improved effectiveness in spatial governance and on-the-ground delivery of public services, facilities, and amenities.

Greater Cape Metro Regional Spatial Implementation Framework (RSIF)

The PSDF gives priority to bolstering the spatial performance of the Greater Cape Metro (GCM) region, and to this end recommended preparation of this RSIF.

During the RSIF's preparation GCM municipalities identified various urban growth 'hotspots' on their boundaries, which they prioritised for inter-municipal planning and management interventions (see **FIGURE 2** below). Klapmuts was identified as a "hotspot" area indicated as number 4 in the figure 2. The N1, N2 and N7 gateways were also flagged as strategic regional corridors that are subject to intense development pressures.

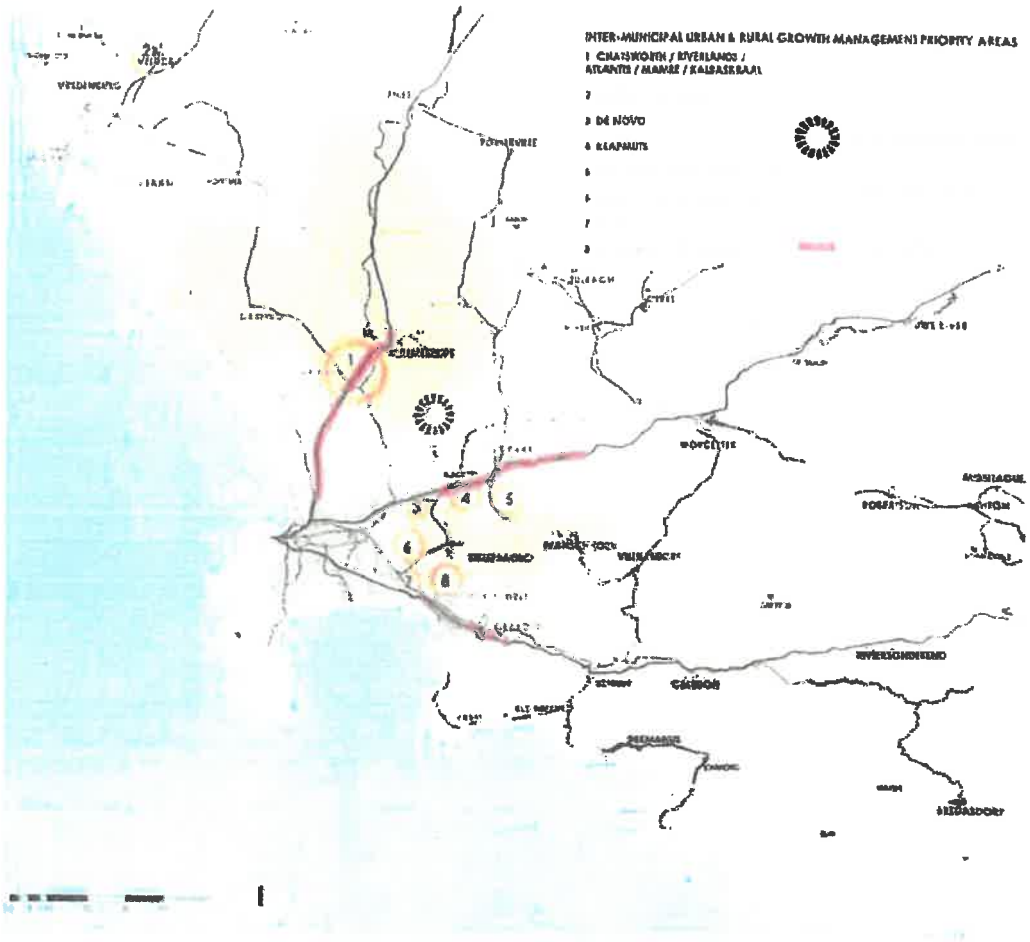


FIG 2. Inter-Municipal Urban & Rural Growth Management Priority Areas
Both Stellenbosch and Drakenstein Municipalities have identified Klapmuts as a prospective sub-regional urban node along the N1. Residential and industrial development opportunities have been identified north and south of the N1, and the area has also been identified as having potential to serve as a regional freight logistics hub.

To take develop proposals forward the RSIF proposed the following needs to be considered:

- Existing infrastructure (i.e., N1, R101, R44 and the Paarl-Bellville railway line and station) which dictate the location of certain transport, modal change, or break-of-bulk land uses.
- Existing development footprint of Klapmuts as well as potential development land parcels including land north of the N1 and the N1-R101-railway line corridor east of Klapmuts, the latter extending up to Paarl South Industria and including a proposed green logistics hub.
- Potential for an In-land port and Agri-processing, packaging, and dispatch platform.

- Avoiding daily movement across the N1 between place of work and residence or social facilities. -- Achieving an appropriate metro gateway.

The RSIF cautions that suburban sprawl on the edges of major urban areas erodes rural landscapes of significance with agriculture being reduced to 'islands. This is the case on the edges of Cape Town, Stellenbosch, and Paarl where the lateral spread of urban development has eroded landscapes of the Cape Winelands. The high degree of the accessibility of the Cape Winelands from Cape Town and its role in providing green spaces on the urban fringes of the city makes them desirable tourism and weekend recreational destinations. The growing trend of establishing commercial tourism facilities can have negative impacts on landscape and scenic route character if not carefully managed. The growing diversification of agricultural activities is changing the character of the region's rural landscapes particularly in the Cape Winelands and can have negative visual impacts, e.g., tunnel farming. The gentrification of the region's rural landscapes through lifestyle 'rural' gated residential estates is a major threat to their authenticity and integrity. Heritage and scenic landscapes are threatened by several development trends and management challenges that cut across municipal boundaries.

3. STELLENBOSCH MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK (MSDF)

The MSDF was prepared recently and approved by Council in November 2019. A prerequisite for drafting a MSDF is that it must comply and include National and Provincial policy. Hence the MSDF built upon the policy alluded to in the previous paragraphs as it relates to Klapmuts.

To this extend the MSDF identified 7 principles to guide the spatial development of Stellenbosch and provides planning and design guidelines and principles to direct spatial form in the Stellenbosch Municipal Area. The principles include the following:

- Maintain and grow natural assets.
- Respect and grow cultural heritage.
- Direct growth to areas of lesser natural and cultural significance as well as movement opportunity
- Clarify and respect the different roles and functions of settlements.
- Clarify and respect the roles and functions of different elements of movement structure.
- Ensure balanced, sustainable communities.
- Focus collective energy on critical lead projects of which Klapmuts is one.

The MSDF as it relates to Klapmuts is shown in **FIGURE 3** below.

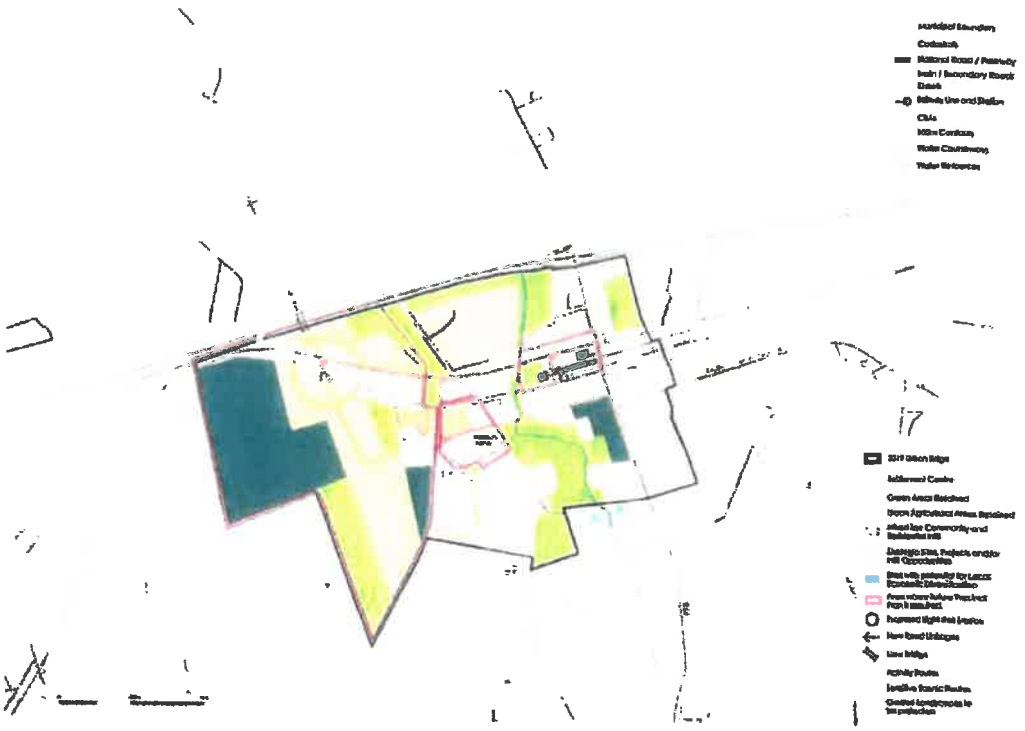


FIGURE 3. MSDF (KLAPMUTS)

With respect to Klapmuts as an urban settlement and identified "hot spot" the Greater Cape Metro Regional Spatial Implementation Framework (RSIF) contains very specific policy directives related to Klapmuts, aimed at addressing pressing sub-regional and local space economy issues. Key policy objectives include:

- Using infrastructure assets (e.g., key movement routes) as "drivers" of economic development and job creation.
- Recognition that existing infrastructure in the area (i.e., N1, R101, R44 and the Paarl-Bellville railway line and station) dictate the location of certain transport, modal change or break-of bulk land uses.
- Recognition of the Klapmuts area as a significant new regional economic node within metropolitan area and spatial target for developing a "consolidated platform for export of processed agri-food products (e.g., inland packaging and containerisation port)" and "an inter-municipal growth management priority".
- The consolidation of and support for existing and emerging regional economic nodes as they offer the best prospects to generate jobs and stimulate innovation.
- The clustering of economic infrastructure and facilities along public transport routes.
- Maintaining valuable agricultural and nature assets.
- Providing work opportunity in proximity to living areas.

The decision by Distell Limited to relocate to and consolidate its operations in Klapmuts is critical to commence more balanced development of the settlement. Distell Limited proposes to develop a beverage production, bottling, warehousing and

distribution facility on Paarl Farm 736/RE, located north of the N1, consolidating certain existing cellars, processing plants, and distribution centres in the Greater Cape Town area. The farm measures some 200 ha in extent. The beverage production, bottling, warehousing and distribution facility will take up approximately 53 ha. The project proposal includes commercial and mixed-use development on the remainder of the site which is not environmentally sensitive to provide opportunities both for Distell's suppliers to co-locate, and for other business development in the Klapmuts North area. The site does not have municipal services, and the proposed development will therefore require the installation of bulk service infrastructure, including water, wastewater treatment, stormwater, electricity, and internal roads.

Several issues require specific care in managing the development of Klapmuts over the short to medium term.

- The first is speculative applications for land use change on the back of the proposed Distell development.
- The second is the linkages between Klapmuts north and south, specifically along Groenfontein Road and a possible NMT crossing over the N1 linking residential areas south of the N1 directly with Farm 736/RE. Without these linkages, residents to the south of the N1 will not be able to benefit from the opportunity enabled north of the N1.
- The third is speculative higher income residential development in the Klapmuts area, based on the area's regional vehicular accessibility. Higher income development is not a problem in and of itself, but ideally it should not be in the form of low-density gated communities.

The Local Spatial Development Framework for Klapmuts North (Prepared by the Drakenstein Local Municipality – see **FIGURE 4** and **TABLE 2** below) envisages a very significant extent of development for Klapmuts North.

Nature and scope of Development Component	Units or bulk m^2
Group Residential on erven of larger 250 m^2	1 949 units
Medium Density Residential on erven larger than 250 m^2	2 356 units
High Density Residential - flats	12 051 units
Commercial - Office	912 354 m^2 (Bulk)
Commercial – retail	187 839 m^2 (Bulk)
General light industrial	370 120 m^2 (Bulk)

Source: Akanya Development Solutions and Beal Africa (2018)

Table 2. Development Scope

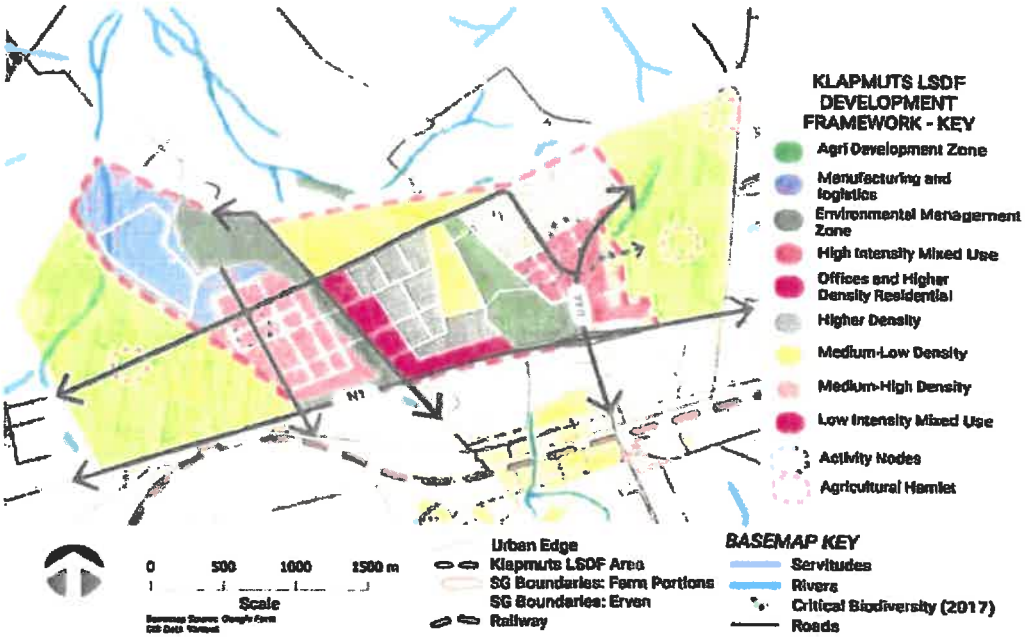


FIG 4. Klapmuts North LSDF

Specifically, in terms of a 20-year growth trajectory, Commercial Office development of 912 354m² is envisaged, Commercial Retail development of 187 839m², and General Light Industrial Development of 370 120m². Several issues emerge:

Firstly, the realism of these land use projections within the context of the regional economy is questionable. To illustrate: Considering the envisaged Commercial Office allocation, it is noted that Cape Town CBD currently has some 940 000m² of office space, Sandton in Gauteng is larger at over 1,2 million m² of Commercial Office space, Midrand at some 640 000m², and Century City (some 20 years in the making) at some 340 000m².

In relation to Commercial Retail space, it is noted that more of this use is envisaged for Klapmuts North than Century City's current 140 000m². While 370 120m² is provided for General Light Industrial Development, the proposed Distell distribution centre alone will comprise 125 000m², and many new logistic centres recently completed in the Kraaifontein/ Brackenfell area range in size between 45 000m² and 120 000m.

Secondly, these land use allocations need to be viewed against the policy context, which sees Klapmuts as a regional freight/ logistics hub – with a focus on job creation – and establishing a balanced community. The LSDF over-emphasises commercial office and retail development, "exploiting" the areas' access to regional vehicular routes, and private vehicular access, at the expense of job creation at scale – and establishing a regional light industrial hub – serving an existing poorer community in proximity to a freight movement corridor.

Thirdly, it is maintained that the infrastructure service requirements – and affordability – of the projected land use allocations are understated. For example, it is known that any development north of the N1 over and above the proposed Distell distribution centre of 125 000m² will involve very costly reconfiguration and augmentation of intersections with the N1. It would be irresponsible to create expectations around land use without these associated requirements being resolved to a fair degree of detail.

TABEL 1 below summarises key place-specific inter-municipal planning issues. As a basis, the issues and comments as contained in the Cape Town MSDF are listed, expanded upon with comments from the perspective of the Stellenbosch MSDF.

KLAPMUTS		
	To take develop proposals forward the following needs to be considered: • Existing infrastructure (i.e. N1, R101, R44 and the Paarl-Bellville railway line and station) which dictate the location of certain transport, modal change or break-of-bulk land uses. • The existing development footprint of Klapmuts as well as potential development land parcels including land north of the N1 and the N1-R101- railway line corridor east of Klapmuts, the latter extending up to Paarl South Industria and including a proposed green logistics hub. • Potential for an inland port and agri-processing, packaging and dispatch platform. • Avoiding daily movement across the N1 between place of work and residence or social facilities. • Achieving an appropriate metro gateway. • A collaborative sub-regional growth management spatial framework between the Stellenbosch and Drakenstein municipalities in order to avoid unsustainable "twin developments"	The SM MSDF supports development of Klapmuts (north and south) as a significant area of economic opportunity – located on the metropolitan area's major freight route – and place of settlement proximate to work opportunity. The Distell led development of Farm 736/RE is supported, unlocking work opportunity for a significant community in an area of lesser agricultural opportunity and nature/ cultural value. Key considerations into the future include: • Realistic assumptions about the extent of future land use categories and take-up rates. • Careful consideration of land use change east of Farm 736/RE. • NMT integration of the north and south across the N1. • Careful consideration of high-end, gated residential development capitalising on the private vehicular accessibility of Klapmuts. The area stretching from Klapmuts to Paarl, situated between the N1 and Old Paarl Road – including Ben Bernard – appears to have significant metropolitan-wide potential for enterprises depending on good freight access. Its future should also be the subject of inter-municipal planning.

TABEL 1. Inter-municipal issues 1

APPLICATION

The application submitted is for the following in terms of the Stellenbosch Municipality: Land Use Planning By-law, 2015 in relation to Portion 5 of Farm 742, Paarl:

- Amendment of conditions of approval to amend the approved Subdivision Plan.
- Amendment of conditions of approval to relocate approved land use rights with inclusion of non-residential floor area to permit:
    - 1 577 residential units consisting of flats and group housing units.
    - 28 000m^2 non-residential floor area (including business, industrial and institutional land uses).
- Application for Council's Consent to permit additional land uses on Portion 2 (zoned Mixed-Use Zone).
- Application for Council's Consent to permit Business Premises on Industrial Zone spot-zoning on Portion 2.
- Application for Council's Consent to permit Business Premises on Portions 3 and 4 (zoned Industrial Zone).
- Application for Council's permission to permit flats at ground storey on Portion 2 (zoned Mixed-Use Zone).
- Application for approval of proposed Stellenbosch Bridge Development Framework.

DISCUSSION

To comment evaluate the applications it is essential to first engage with the development framework submitted as part of the application in a meaningful way. Although the framework will not have any statutory rights *per se* due to it not being processed in the correct procedural way nor endorsed by council, it does have relevance when evaluating the various applications that will follow. Mainly the framework must be evaluated against the approved MSDF and policy documents referred to earlier on in the report.

1. Stellenbosch Bridge Development Framework

Stellenbosch Bridge is a private sector-led project that combines the leading-edge concepts of innovation district and smart city to create a knowledge economy-based focus area within a mixed-use, environmentally conscious, people-centred development. The intent is to create a vibrant live-work-play-innovate development. To achieve this requires a strong urban design concept, a clear development framework and active management within which investment, economic development and community can flourish.

Innovation-driven, smart environments need dynamic land use management to facilitate swift reaction to rapidly changing circumstances. In addition, the post-COVID world will be an irrevocably altered urban landscape of changes in land use demand and urban management that cannot be anticipated or planned for. To position this development to survive and thrive in these unpredictable circumstances, its planning and implementation need to deal with rapid change thereby being Future Proactive. It requires a strategy that allows flexibility but within clear controls. The basis of achieving a Future Proactive development is the F.I.R.S.T. Principles:

- **Flexibility**: Capability to adapt to changing circumstances by planning for it proactively.

- **Innovation**: Being open to and able to respond to new thinking in a rapidly changing environment.
- **Resilience**: Ability to prepare for, recover from, and absorb change.
- **Sustainability**: Ability to maintain a balance between economic, social, and environmental demands.
- **Thresholds**: Identification of clear limits at which action needs to be taken or investments made to maintain the balance of the development and its environment.

The Development Framework Plan sets out the basic physical structure for the development of the site in accordance with the urban design concept. The following structuring elements will guide its implementation:

Access Points

The development, when completed, will be accessed by means of four new vehicular/pedestrian accesses from the R101 (Old Paarl Road), R44 (Stellenbosch Road), DR 1090 (Elsenburg Road) and Merchant Street as well as a new railway station:

- The primary access is a northerly link to the R101 via an underpass under the railway line. This access will link the development to the N1 via the existing R44 Interchange as well as a new interchange at the Groenfontein Road location.
- Three secondary accesses will be phased (the regional road network plan will determine the priority and timing):
  - Merchant Street link: This access will have an integration function between the development and Klapmuts, providing for lower-order distribution only.
  - R44 Access: A road link to the R44 will provide access from the south-east.
  - DR 1090 Access: A road link to the Elsenburg Road will provide access from the west.
- Stellenbosch Bridge Station – A new station serving the development is proposed between the Klapmuts and Muldersvlei Stations.

Movement Routes

Three levels of movement form part of the framework:

- The primary movement system consists of the main north-south route (R101 to R44) as well as the western (Elsenburg Road) and eastern (Merchant Street) link roads that integrate the four road access points and links the development to the broader area.
- The secondary movement system is made up of a network of private roads and accesses that provides internal access and circulation to the precincts.
- The third level of movement involves the Pedestrian/NMT system which will be catered for along the primary and secondary routes as well as the open space system which will ensure a walkable environment and links the development to the broader area.

Open Space System

The open space system consists of the following:

- Primary Open Space System - the linear network of green spaces incorporating the existing tree lines, tree clumps and enhanced water features within the urban edge. The experience of this space will be enhanced through landscaping and

the system will be linked into a wider green network including a link to Klapmutskop.

- Urban Space System - the road spaces and public squares internal to the development precincts will be designed to give pedestrians equal importance of movement and to facilitate social interaction and economic opportunity.
- Destination Places - the central square, public squares, and open space destination places such as water features, eventing facilities and the labyrinth. These places form focal points in the open space system and facilitate use, pedestrian movement, economic opportunity, and social interaction.

Precincts and Land Use

The site is divided into four development precincts and two open space precincts. Each precinct has been allocated a primary use category being 1) Innovation, 2) Residential, 3) Industrial, 4) Data Centre, 5) Agricultural Research or 6) Conservation and a suite of land use allocations as based on the design concept:

- **Precinct A** (Innovation): The innovation precinct (Sub-Precincts A1 – A5) integrates all aspects of a live-work-play-innovate environment around a network of public spaces. The proposed zoning is Mixed-use Zone.

- **Precinct B** (Residential): The high-density residential precinct incorporates complimentary social and business uses and multi-functional open spaces areas to create a high-quality living environment. The proposed zoning is Multi-unit Residential Zone.
  - o
- **Precinct C** (Industrial): The green and smart industrial precinct. The proposed zoning is Industrial Zone: Data Centre; Business; Smart Manufacturing; Warehousing, Logistics and Distribution; Utility Service; Parking; Private Open Space; Private Road.

- **Precinct D** (Data Centre): The precinct accommodating the main data centre. The proposed zoning is Industrial Zone: Data Centre; Smart Manufacturing; Business; Utility Service; Parking; Private Open Space; Private Road.

- **Precinct E** (Agricultural Research): The land area west of the urban edge. The zoning is Agriculture and Rural Zone: Agricultural Research; Renewable Energy; Sports and Recreation; Tourism.

- **Precinct F** (Conservation): The natural vegetation area south of the development area. The zoning is Agriculture and Rural Zone: Conservation; Sports and Recreation; Tourism; Environmental Education.

The different development precinct is depicted in the Stellenbosch Bridge Development Framework which is attached as **FIGURE 6** below.

FIG 5. Stellenbosch Bridge Development Framework

Urban design Approach

The urban design concept (Refer to FIGURE 6 below) for the Stellenbosch Bridge development is based on traditional urban design principles which provides living, working and recreational spaces for a diverse community of people in combination with creating a catalytic environment that provides opportunities for technological and social enhancements which define a smart city.

FIG.6. Urban Design Approach

With a development of this scale it is imperative that a proper urban design is proposed. The Urban Design vision is based on the following urban design principles:

- Daily needs within walking distance (mixed-use environment)
- Interconnected system of streets
- A central focus: main streets and square
- Perimeter buildings orientated to the public realm.
- Clear distinction between private and public space
- Sharing of infrastructure over a 24-hour period

The design of the mixed-use environment will focus on place-making, urban fit, and spatial integration.

The individual buildings will have strong features, differ in detail, but will be part of the "same family". The development spine is a north-south pedestrian street linking two main squares around which all the parts of the development are collected and grouped. The area will be a safe pedestrian environment in which open walls, streets, squares, parks, and sports fields are articulated as positive spaces, providing an array of experiences and functions.

Parking will be accommodated on streets and within courtyards, semi-basements and basements concealed within the development. From inception the development will use the materials and technology required to achieve a GBCSA rating. Landscaping and a green environment are integral to the architecture.

Land Use Projection

The Land Use Projections for the total development is indicated in **Table 2** below.

Precincts	Residential	Business	Industrial	Institutional
	Dwelling units du	Floor Area - m²	Floor Area - m²	Floor Area - m²
Precinct A	2 500	256 500	43 000	144 000
A1	600			
A2		43 500		
A3		15	2	
A4				0
A5	1			
Precinct B	2 500	-	-	-
B1	60			
B2				
Precinct C	-	-	75 500	-
Precinct D	-	10 000	15 000	-
Floating	1 000	47 000	60 000	29 000
Sub-Total	6 000	313 500	193 500	173 000
TOTAL	6 000			680 000

Table 2. Land Use Projections

From the table it is apparent that the application entails a substantial development that will provide at least 6 000 residential units as well as 680 00m² (or 68 hectares) of non-residential rights which include industrial, business, and institutional uses.

However, the enormous scale of new development envisaged at Klapmuts can only be fully understood should the development scope of the Klapmuts North LSDF be added to those envisaged by this application. **TABLE 3** below represents the potential extent of development rights should this application be approved and if the future development unfolds as proposed by the Drakenstein Local Municipality bearing in mind that several very real issues are obstructing the implementation of the plans of which the availability and cost of bulk infrastructure is possible the most pressing.

Nature scope of development component	Klapmuts North (Bulk m²) or units	Klapmuts South (Bulk m²) or units	Total scope of development (Bulk m²) and units
Residential Erven	16 356 units	6 000 units	22 356 units
Commercial - offices	912 354 m²	313 500 m²	1 225 854 m²
Commercial - retail	187 839 m²		187 839 m²
Light industrial	370 120 m²	193 500 m²	563 620 m²
Innovation		173 000m²	173 000 m²
Total Residential Units			**22 356 units**
Total Non-residential (Bulk m²)			**2 172 669 m²**

Table 3. Total Land use allocation

Albeit a development that is envisaged to role out over the next 15 to 20 years – perhaps even longer, the development aims to fully integrate into the larger Stellenbosch spatial vision, and with the participation of its stakeholders. This will include the Stellenbosch Municipality, University of Stellenbosch, the Klapmuts community and the community that will live, work, innovate and socialise within the development.

Stellenbosch MSDF included the proposed development within the urban edge but cautioned against the sheer scale of what is envisaged. The SM MSDF supports development of Klapmuts (north and south) as a significant area of economic opportunity – located on the metropolitan area's major freight route – and place of settlement proximate to work opportunity. The Distell led development of Farm 736/RE is supported, unlocking work opportunity for a significant community in an area of lesser agricultural opportunity and nature/ cultural value. Key considerations into the future include:

- Realistic assumptions about the extent of future land use categories and take-up rates.
- Careful consideration of land use changes east of Farm 736/RE.
- NMT integration of the north and south across the N1.
- Careful consideration of high-end, gated residential development capitalising on the private vehicular accessibility of Klapmuts.

RECOMMENDATION

Although the Development Framework is well planned and noted as such, it cannot be approved or given any statutory status as it remains a framework plan to motivate the application at hand and did not follow any prescribed legal process to obtain formal approval.

The desirability and feasibility to obtain primary access from the Old Paarl Road to Stellenbosch Bridge rather than to the N1 need to be investigated as the Old Paarl Road might not be able to cope with the eventual volume of traffic.

In order to understand the future development of Klapmuts as an urban node situated in two adjacent municipal areas of jurisdiction, it is recommended that Stellenbosch Municipality, Drakenstein Municipality and the Cape Metro engage urgently to liaise around the scale and extent of the proposed development, to agree on the scale and extent of the total development, the provision of bulk services, and clarify to the proposed land use allocations in view of the vision of Klapmuts as a regional freight/ logistics hub.

Such discussion must include the necessary linkages between Klapmuts North and Klapmuts South across the N1.

Application to amend the conditions of approval as granted in 2011 to permit the development rights as indicated in sections A1, A3 and B2 of the Development Framework for potions 5 of Farm 742, Paarl.

In 2011 the Stellenbosch Municipality granted approval for the Klapmuts Hills development, which included approval of the Development Framework, rezoning, subdivision and departures to permit urban development on this site within an approved Basket of Rights, allowing for 1 577 residential units and associated services and facilities.

The existing land use approval for Portion 5 of Farm 742, Paarl presents an opportunity for these development rights to be utilised as a first phase of the Stellenbosch Bridge development project. This will allow development to commence on the site, while being aligned with the Development Framework for the Stellenbosch Bridge development.

Application is made for the reallocation of the existing rights approved for Portion 5 of Farm 742, Paarl in terms of the vision for the redevelopment of the site as part of the Stellenbosch Bridge innovation precinct and in terms of the services capacities already provided for. Application is also made for an additional 28 000m^2 non-residential floor space (business, institutional and light industrial). Note that this floor space was incorporated into the service calculations of the previous Klapmuts Hills proposal, including the subdivision plan for Phase A, as well as the NEMA environmental authorization. However, these rights were not expressly allocated, and the scale or bulk thereof described in the original approval. Therefore, although this non-residential floor space may have been the intention of the previous development proposal, it was not formally approved in the previous application, it is now included within this application as additional rights over and above rights previously awarded.

This application involves the amendment of conditions of approval to amend the approved Subdivision Plan, to reallocate the approved land use rights with additional non-residential floor area, Council's consent to permit additional land uses on various

portions and the approval of the proposed Stellenbosch Bridge Development Framework.

Although the development concept between the approved and proposed Development Framework plans is different, the overall development structure and development area remains similar, as illustrated in **FIGURE 7** below.

FIG 7. Amended Layout for application 1.

The main vehicular access to the development remains from the north with a new access road being constructed via a new rail underpass from the Old Paarl Road. The road link into the existing town was recently approved by Council and will function as the primary access road during the development of the first phase until the norther underpass is constructed.

Although the roads department indicated that the development (1 577 residential units plus 28 000 non-residential uses) can obtain access over council property via Merchant Street the traffic generated by the construction and use of this first phase will have a serious impact on Merchant Street which is a lower order street. This impact will reflect negatively on the current community and school as the road is well used for NMT purposes.

Alternative and/or additional access to the development is crucial. Although Merchant street is indicated as access for the interim, the application for industrial

rights will already make use of the street. The underpass indicated to link with Old Paarl Road is essential before any development can take place.

The green open space which separates the northern and southern development areas is retained in the amended Development Plan.

In terms of broad land use categories, there are similarities between the two development plans. Both development plans provide for residential development on the southern portion of the site, with limited commercial opportunities as ancillary land uses to the residential development. The northern portions of both the approved and proposed development plans provides for a mix of uses. Whereas the approved development plan provides for a mix of commercial and residential development, the proposed amended Development Framework provides for commercial, light industrial, institutional and residential development as part of the innovation precinct.

The light industrial component is envisaged to be a "clean" industrial area aimed at supporting the innovation hub and may include uses such as a data centre. However, should this plan not realize the development of a light industrial area within a residential area is a possibility and may lead to serious conflict with the residential component (noise, pollution, heavy vehicles etc.). Care should thus be taken to limit and ensure that the proposed industrial site is exclusively allocated to "clean" industrial and cannot be developed into an industrial site that is incompatible with residential uses.

The development footprint areas for the northern commercial component are largely similar to the approved Development Framework, although the density and character of this area will be different.

The development footprint of the southern residential portion is also similar, although the open space area now moves from the western side of the site to the eastern side allowing for a better alignment of movement and services systems.

Apart from the open-ended use of land zoned for industrial purposes and the use of Merchant street as the primary access point for the development, the proposed amendment of conditions as well as the additional 28 000m² non-residential land use rights are thus supported.

This department do not fully understand how the land use rights and bulk applied for relates to the parameters of the Stellenbosch Municipality Integrated Zoning Scheme (IZS) i.e., coverage, bulk, number of storeys etc. and cannot evaluate the possibility of departures from the development parameters. As such, the application must be evaluated in terms of what the IZS allows.

RECOMMENDATION

That the application to amend the conditions of approval is supported as it essentially is an improved design that has the potential to be extended in future subject to the appropriate application process being successfully concluded.

The approval of 28 000 m² non-residential land use rights (light industrial, business and institutional) is also subject to the following conditions:

1. The zoning of light industrial must be defined as a use that is primarily aimed at IT and related uses and may not include manufacturing that may cause a noise disturbance, air pollution or is dependent on heavy vehicles or freight transfer.

2. Clarity be obtained as to how much floor space will be required for which use as the "non- residential use is too much of an open-ended land use right. The land use rights must be described clearly and restricted to a maximum bulk per land use.

3. Without an indication of how the development compares with the development parameters of the IZS, the proposed development and particularly the 28 000 m² additional non-residential land uses should be in line with the current development parameters allowed in the IZS.

CONCLUSION

In conclusion, from all policy reports Klapmuts must be viewed as a regional centre and should not be a mere rural settlement on the outskirts of Stellenbosch. This implies substantial development in future. Klapmuts has the potential to develop into a town or even city over time depending on the investment of bulk infrastructure. The full extent of the potential development should be recognised and planned in an integrated way to allow Klapmuts to develop into a well-planned and integrated way.

The current application must be evaluated as a stand-alone application independent of the bigger vision. It is the view of this office that the application at hand can be supported on its own irrespective of the bigger potential demonstrated by the Framework plan.

BJG de la Bat
MANAGER: SPATIAL PLANNING

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ANNEXURE M

COMMENT FROM MANAGER: HEALTH DEPARTMENT (WINELANDS DISTRICT)

To: Fabian van Wyk <fabian@capewinelands.gov.za>; **Leandre Candice Davids** <leandre@capewinelands.gov.za>
Subject: FARM 744/2 PAARL DIVISION: APPLICATION FOR REZONING, SUBDIVISION AND TEMPORARY DEPARTURE (LU/11252): DEPARTMENTAL COMMENT - HEALTH (COMMENTS BY EMAIL)

I'm using Mimecast to share large files with you. Please see the attached instructions.

I'm using Mimecast to share large files with you. Please see the attached instructions.

Good day;

Attached please find the relevant documentation regarding the abovementioned application. Kindly furnish me with your comment by email, if any, in order to enable me to submit the application to the decision making authority for consideration.

ERF / FARM NUMBER & APPLICATION NUMBER: Farm 744/2, Paarl Division (Lu/11252)

DESCRIPTION OF THE PROPOSAL:

Application to Rezone Remainder of Portion 2 of Farm 744, Paarl from Agriculture & Rural Zone to Subdivisional Area Overlay Zone to develop the following land uses:
Portion 1 for Industrial Zone (±4.4321ha)
Portion 2 for Industrial Zone (±13.1389ha)
Portion 3 for Industrial Zone (±1.0774ha²)
Portion 4 & 5 for Public Road purposes (±2.34ha)
Portion 6 for Private Open Space (±0,0964ha)
Portion 7 for Utility Services (±0.05ha)
To develop 90 500m² of Industrial and Business floor area as a Basket of Rights.

Application to subdivide Remainder of Portion 2 of Farm 744, Paarl, into Seven portions, to provide for the following:
Portion 1 (±4.4321ha) for Industrial
Portion 2 (±13.1389ha) for Industrial Zone
Portion 3 (±1.0774ha²) for Industrial Zone
Portion 4 & 5 (±2.34ha) for Public Road purposes
Portion 6 (±0,0964ha) for Private Open Space
Portion 7 (±0.05ha) for Utility Services

Application for the Consent of Council to allow Business Premises on Portions 1 and 2 of the proposed development.

APPLICANT: ARoux Town Planning

PROPERTY ADDRESS: Main Road, Paarl Division

Please note that your comments must be submitted on or before ***07 September 2020*** from the date of this email.

Kind regards / Vriendelike Groete
Nicole Katts
Administrative Officer
Land Use Management
Planning & Economic Development

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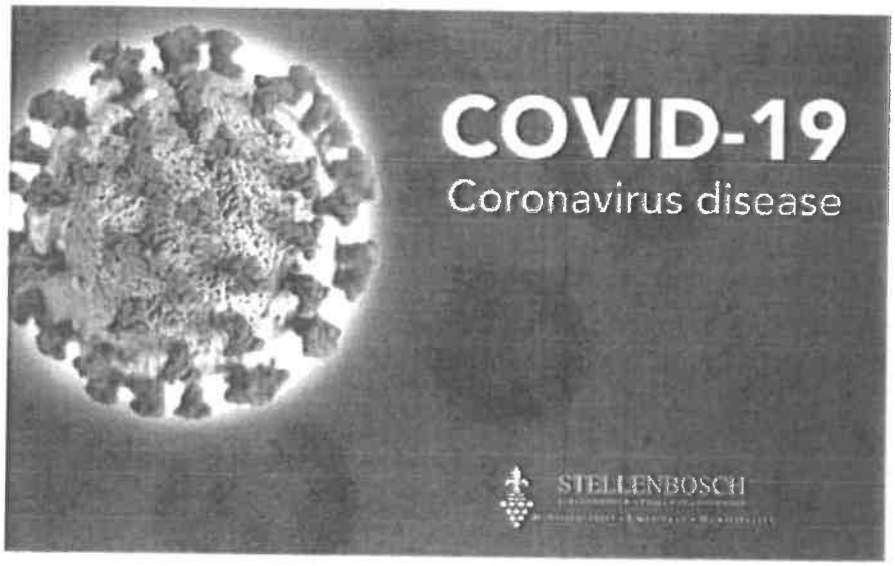

- National Hotline 0800 029 999
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- 456

About Stellenbosch Municipality
Our mission is to deliver cost-effective
enabling

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ANNEXURE N

COMMENT FROM MANAGER: DEVELOPMENT (INFRASTRUCTURE SERVICES)

MEMO

DIRECTORATE: INFRASTRUCTURE SERVICES
DIREKTORAAT: INFRASTRUKTUURDIENSTE

TO	:	**The Director: Planning and Development**
FOR ATTENTION	:	**Nicole Katts**
FROM	:	**Manager: Development (Infrastructure Services)**
AUTHOR	:	**Tyrone King**
DATE	:	**21 December 2020**
RE.	:	**Farm 744-2: Stellenbosch Bridge Development (Application 2): Rezoning and Subdivision**
YOUR REF	:	**LU/11252**
OUR REF	:	**2028 CIVIL LU**

Details, specifications and information reflected in the following documents refer:

- The abovementioned application and motivation report by Anton Lotz and A Roux dated July 2020 (Revision 4);
- Proposed Subdivision and Zoning Plan, Plan No 18096-002 Rev C dated 2020-06-16 by Anton Lotz and A Roux;
- Transport Impact Statement by ICE, dated 13 Dec 2019 (Ref iCE/S/493A);
- Preliminary Civil Engineering Services Report – Application 2, dated December 2019, by WEC Consult;
- GLS water and sewer capacity analysis report dated 16 October 2020

These comments and conditions are based on the following proposed development parameters:

- Total GLA: 76 925m^2 (Light industrial zoning) as per Par 2.2 of motivation report. GLA is regarded as 85% of total floor area of 90 500m^2

Any development beyond these parameters would require a further approval and/or a recalculation of the Development Charges from this Directorate.

This document consists of the following sections:

A. Definitions
B. Recommendation to decision making authority
C. Specific conditions of approval: These conditions must be complied with before clearance certificate, building plan or occupation certificate approval; whichever is applicable to the development in question.
D. General conditions of approval: These conditions must be adhered to during implementation of the development to ensure responsible development takes place. If there is a contradiction between the specific and general conditions, the specific conditions will prevail:

A. Definitions

1. that the following words and expressions referred to in the development conditions, shall have the meanings hereby assigned to except where the context otherwise requires:

   (a) *"Municipality"* means the STELLENBOSCH MUNICIPALITY, a Local Authority, duly established in terms of section 9 of the Local Government Municipal Structures act, Act 117 of 1998 and Provincial Notice (489/200), establishment of the Stellenbosch Municipality (WC024) promulgated in Provincial Gazette no. 5590 of 22 September 2000, as amended by Provincial Notice 675/2000 promulgated in Provincial Gazette;

   (b) *"Developer"* means the developer and or applicant who applies for certain development rights by means of the above-mentioned land-use application and or his successor-in-title who wish to obtain development rights at any stage of the proposed development;

   (c) *"Engineer"* means an engineer employed by the *"Municipality"* or any person appointed by the *"Municipality"* from time to time, representing the Directorate: Infrastructure Services, to perform the duties envisaged in terms of this land-use approval;

2. that all previous relevant conditions of approval to this development application remain valid and be complied with in full unless specifically replaced or removed by the *"Engineer"*;

B. Recommendation:

3. **The development is recommended for approval, subject to the conditions as stated below.**

C. Specific conditions of approval

4. **Background/Context:** It is understood that this application is in essence to create the "basket of rights" in terms of which the development will be implemented. This application does therefore not go into the detail of the buildings to be developed, as such details will be provided at a later stage namely precinct plans, subdivision plans and SDP approval (par 4.2 of motivation report). Such further detail might lead to new or revised conditions by the Infrastructure Services department when such applications are received and assessed. The requirements regarding the internal services and/or link services will also be addressed in more detail at the SDP approval stage.

5. It should further be noted that this Application forms part of the larger Stellenbosch Bridge development and should not be considered in isolation. It is also not possible to predict the sequence of the implementation of the larger development, which is why a "services threshold" approach has been selected to identify when infrastructure upgrades are triggered. The "services threshold" approach means that regardless the sequencing of construction, the cumulative service demand of the overall development will determine which upgrades are triggered.

6. **Development thresholds triggering bulk service upgrades (Annexure: Services Thresholds):** The Services Thresholds table indicates at which stage of the overall Stellenbosch Bridge Development the various upgrades are triggered. In order to identify when such a trigger occurs, each subsequent development application i.e. SDP application, must indicate the cumulative demand that will realize due to that application. Therefore, each subsequent application must be accompanied by a Traffic Impact Study, an Engineering Services Report, a Water and Sewer capacity analysis report by the municipality's master planning specialist, as well as an updated Service Threshold Table, to analyze the impact of each specific application and to identify which of the upgrades are triggered. **No taking up of proposed rights including subdivision clearance or building plan approval (whichever comes first) will be allowed before the identified upgrades have been completed.**

7. Following the SDP approval, detail engineering drawings for the identified bulk upgrade items must be submitted for approval. These drawings must comply with the municipality's minimum standards and specifications and any additional and specific requirements regarding detail design will be identified at this stage.

8. Should the "Developer" wish to discuss the possibility of proceeding with building work parallel with the provision of the bulk services listed above, he must present a motivation and an implementation plan to the "Engineer" for his consideration and approval. The implementation plan should include items like programmes for the construction of the internal services and the building construction. Only if the programme clearly indicates that occupation is planned after completion of the bulk services, will approval be considered. If such proposal is approved, it must still be noted that no occupation certificate will be issued prior to the completion and commissioning of the bulk services. Therefore should the proposal for proceeding with the development's construction work parallel with the provision of the bulk services be agreed to, the onus is on the "Developer" to keep up to date with the status in respect of capacity at infrastructure listed above in order for the "Developer" to programme the construction of his/her development and make necessary adjustments if and when required. **The Developer is also responsible for stipulating this condition in any purchase contracts with the buyers of the properties. Proof of this may be required before building plans are approved;**

9. **Public Transport:** If public transport is not adequately addressed, the reliance on private transport will increase and have a negative effect on the surrounding road and traffic networks. Therefore, the establishment of a multi modal public transport facility must be investigated in conjunction with the Municipality, and the roles and responsibilities between the various stakeholders for the planning and construction of such a facility must be identified. Recommendations must be identified in the TIS for SDP applications. Further conditions regarding public transport may be set at SDP approval stage.

10. **Stormwater Network:** The consulting engineer, appointed by the "*Developer*", must analyse the existing stormwater systems and determine the expected stormwater run-off for the proposed development, for both the minor and the major storm event. Should the existing municipal stormwater system not be able to accommodate the expected stormwater run-off, the difference between the pre- and post-development stormwater run-off must be accommodated on site, or the existing system must be upgraded to the required capacity at the cost of the "*Developer*" and to the standards and satisfaction of the Directorate:

Infrastructure Services. The aforementioned stormwater analysis is to be submitted concurrent with the SDP applications;

11. **Solid Waste:** Prior to occupation of the development, the Developer must make arrangements with the Municipality (Solid Waste Department) wrt providing a solid waste removal service.

12. **Bulk infrastructure projects not on municipal budget:** Any of the upgrades required, that are not currently on the Municipality's approved budget will be the Developer's responsibility to implement. Where upgrades may be offset against the Development Charges, and should the Development Charges be sufficient, the "Developer" may enter into a Services Agreement with the "Municipality" to do these upgrades in-lieu of Development Charges. Should the Development Charges not be sufficient, the Developer may decide to cover the shortfall. If the Developer is not in a position to cover the shortfall, then the implementation of the development must be re-planned around the availability of the bulk services in question.

Development Charges

13. that the "*Developer*" hereby acknowledges that Development Charges are payable towards the following bulk civil services: water, sewerage, roads, stormwater, solid waste and community facilities as per Council's Policy;

14. that the "*Developer*" hereby acknowledges that the development charges levy as determined by the "Municipality" and or the applicable scheme tariffs will be paid by the "*Developer*" towards the provision of bulk municipal civil services in accordance with the relevant legislation and as determined by Council's Policy, should this land-use application be approved;

15. that the "*Developer*" accepts that the Development Charges will be subject to annual adjustment up to date of payment. The amount payable will therefore be the amount as calculated according to the applicable tariff structure at the time that payment is made;

16. that the "*Developer*" may enter into an engineering services agreement with the "*Municipality*" to install or upgrade bulk municipal services at an agreed cost, to be off-set against Development Charges payable in respect of bulk civil engineering services;

17. that the Development Charges levy to the amount of **R 63 840 957. 68** (Excluding VAT) as reflected on the DC calculation sheet, dated **11 August 2020**, and attached herewith as

Annexure DC, will be payable by the "*Developer*" towards the provision of bulk municipal civil services in accordance with the relevant legislation and as determined by Council's Policy. These Development Charges are indicative at this stage and based on the entire "Basket of Rights" as per this application. It will be recalculated per individual SDP application when these applications are received;

18. Once recalculated , the Development Charges will be paid by the "*Developer*" per phase –
    - prior to the approval of any building- and/or services plans in the case of a Sectional title erf in that phase or where a clearance certificate is not applicable and/or;
    - prior to the approval of Section 28 Certification (subdivision clearance) in terms of the Stellenbosch Municipal Land Use Planning By-law – where individual erven with new development rights have been created;
    - if one the above does not apply, then prior to the erf or portion thereof being put to the approved use;

19. that the development shall be substantially in conformance with the Site Development Plan submitted in terms of this application. Any amendments and/or additions to the Site Development Plan, once approved, which might lead to an increase in the number of units i.e. more than **0 units**, or which might lead to an increase in the Gross Leasable Area i.e. a GLA of more than **76 925 m²**, will result in the recalculation of the Development Charges;

20. Bulk infrastructure Development Charges and repayments are subject to VAT and are further subject to the provisions and rates contained in the Act on Value Added Tax of 1991 (Act 89 of 1991) as amended;

Site Development Plan: the following general principles will be applicable. More detail must be provided at the precinct plan / SDP submission stage.

21. that provision be made for a stacking distance of 6m (< 15 units served); 12m (15-40 units served); site specific requirements (> 40 units served or a business premises). The stacking distances shall be measured from the edge of the closest sidewalk or cycle lane to the entrance gate. The guiding principle is that vehicle and pedestrian traffic should not be obstructed by stacking vehicles;

22. that sufficient entrance and exit widths will be created at the vehicle access points: 2.7m minimum and 4,0m maximum width for a single entrance or exit way; 5,0m min and 8,0m

maximum for a combined entrance and exit way. To accommodate emergency vehicles, at least one lane should be 4, 0 metres wide and have a minimum height clearance of 4.3 m.

23. that, where access control is being provided, a minimum of 2 to 3 visitor's parking bays be provided on site, but outside the entrance gate, for vehicles not granted access to the development;

24. that provision be made for a 3-point turning head in front of the entrance gate, to the satisfaction of the Directorate: Infrastructure Services in order to enable a vehicle to turn around;

25. that provision be made for a refuse room as per the specification of the standard development conditions below;

26. that if the "Developer" wishes to remove the waste by private contractor, provision must still be made for a refuse room should this function in future revert back to the "Municipality";

27. that provision be made for a refuse embayment off the roadway/sidewalk to accommodate refuse removal. (Embayment to be minimum 15m x 2.5m). This must be clearly indicated on the engineering drawings when submitted for approval. The specifications of such embayment shall be as per the standard development conditions below;

28. that the layout be amended to accommodate continuous forward movement by service trucks and all cul-de-sacs have a minimum of 11 m radius turning circle, to ensure continuous forward movement;

29. that any amendments to cadastral layout and or site-development plan to accommodate the above requirements will be for the cost of the "*Developer*" as these configurations were not available at land-use application stage;

Ownership and Responsibility of services

30. Where private roads and established, all services along such roads and/or on the said private development will be regarded as private services and will be maintained by the "*Developer*" and or Owner's Association;

31. Any public roads and services will be maintained by the Municipality;

32. More detail must be provided at the precint plan/SDP submission stage;

Internal- and Link Services

33. that the "*Developer*", at his/her cost, construct the internal (on-site) municipal civil services for the development, as well as any link (service between internal and available bulk municipal service) municipal services that need to be provided;

Bulk Water Meter

34. that the "*Developer*" shall install a bulk water meter conforming to the specifications of the Directorate: Engineering Services at his cost at the entrance gate of **each individual erf** and that clearance will only be issued if the bulk watermeter is installed, a municipal account for the said meter is activated and the consumer deposit has been paid;

Solid Waste

35. For large spoil volumes from excavations, to be generated during the construction of this development, will not be accepted at the Stellenbosch landfill site. The Developer will have to indicate and provide evidence of safe re-use or proper disposal at an alternative, licensed facility. This evidence must be presented to the Manager: Solid Waste (021 808 8241; clayton.hendricks@stellenbosch.gov.za), before building plan approval and before implementation of the development. Clean rubble can be utilized by the Municipality and will be accepted free of charge, providing it meets the required specification.

Servitudes

36. **The property contains an 8m wide pipeline servitude, which crosses in an east-west direction. The servitude must be accommodated within the future development layout. It is acknowledged that the servitude is indicated on the subdivision plan.**

37. Servitudes must be registered wherever private services crosses municipal property. It is acknowledge that such servitudes are indicated on the subdivision plan.

Damage to municipal services

38. that the "*Developer*" will be held liable for any damage to municipal infrastructure incl roads, caused as a direct result of the development of the subject property. The "*Developer*" will therefore be required to carry out the necessary rehabilitation work, at his/her cost, to the

standards of the Directorate: Infrastructure Services, before any clearances, building plan or occupation certificate are issued;

Electricity

39. Electrical Engineering comments:
    a. No conditions.
    b. Outside Stellenbosch are of supply.
    c. All Electrical requirements to be directed to ESKOM.

40. The development resides in an Eskom area of supply. As such the Developer must liaise with Eskom regarding the available capacity of Electricity supply and the cost thereof.

41. In terms of SPLUMA section 49(3), the Developer must satisfy the Municipality that adequate arrangements have been made for the provision of electricity. The developer must supply written proof to this effect.

D. General conditions of approval: The following general development conditions are applicable. If there is a contradiction between the specific and general development conditions, the specific conditions will prevail:

42. that the "*Developer*" will enter into an Engineering Services Agreement with the "*Municipality*" in respect of the implementation of the infrastructure to be implemented in lieu of DCs if the need for such infrastructure is identified at any stage by the Municipality;

43. that should the "*Developer*" not take up his rights for whatever reason within two years from the date of this memo, a revised Engineering report addressing services capacities and reflecting infrastructure amendments during the two year period, must be submitted to the Directorate: Infrastructure Services by the "*Developer*" for further comment and conditions. Should this revised Engineering report confirm that available services capacities is not sufficient to accommodate this development, then the implementation of the development must be re-planned around the availability of bulk services as any clearances for the development will not be supported by the Directorate: Infrastructure Services for this development if bulk services are not available upon occupation or taking up of proposed rights;

44. that the "*Developer*" indemnifies and keep the "*Municipality*" indemnified against all actions, proceedings, costs, damages, expenses, claims and demands (including claims pertaining to

consequential damages by third parties and whether as a result of the damage to or interruption of or interference with the municipalities' services or apparatus or otherwise) arising out of the establishment of the development, the provision of services to the development or the use of servitude areas or municipal property, for a period that shall commence on the date that the installation of services to the development are commenced with and shall expire after completion of the maintenance period.

45. that the "*Developer*" must ensure that he / she has an acceptable public liability insurance policy in place;

46. that, if applicable, the "*Developer*" approach the Provincial Administration: Western Cape (District Roads Engineer) for their input and that the conditions as set by the Provincial Administration: Western Cape be adhered to before Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law will be issued;

47. that the "*Developer*" informs the project team for the proposed development (i.e. engineers, architects, etc.) of all the relevant conditions contained in this approval;

48. that the General Conditions of Contract for Construction Works (GCC) applicable to all civil engineering services construction work related to this development, will be the SAICE 3rd Edition (2015);

49. that the "*Developer*" takes cognizance and accepts the following:

a.) that no construction of any civil engineering services may commence before approval of internal – and external civil engineering services drawings;
b.) that no approval of internal – and external civil engineering services drawings will be given before land-use and or SDP approval is obtained;
c.) that no approval of internal – and external civil engineering services drawings will be given before the "*Developer*" obtains the written approval of all affected owners where the route of a proposed service crosses the property of a third party;
d.) that no building plans will be recommended for approval by the Directorate: Infrastructure Services before land-use and or SDP approval is obtained;
e.) that no building plans will be recommended for approval by the Directorate: Infrastructure Services before the approval of internal – and external civil engineering services drawings;

f.) that no building plans will be recommended for approval by the Directorate: Infrastructure Services before a Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law is issued unless the *"Developer"* obtains the approval of the *"Engineer"* for construction work of his development parallel with the provision of the bulk services.

Site Development Plan

50. that it is recognized that the normal Site Development Plan, submitted as part of the land-use application, is compiled during a very early stage of the development and will lack engineering detail that may result in a later change of the Site Development Plan. Any later changes will be to the cost of the "Developer";

51. that even if a Site Development Plan is approved by this letter of approval, a further fully detailed site plan be submitted for approval prior to the approval of engineering services plans and or building- and/or services plans to allow for the setting of requirements, specifications and conditions related to civil engineering services. Such Plan is to be substantially in accordance with the approved application and or subdivision plan and or precinct plan and or site plan, etc. and is to include a layout plan showing the position of all roads, road reserve widths, sidewalks, parking areas with dimensions, loading areas, access points, stacking distances at gates, refuse removal arrangements, allocation of uses, position and orientation of all buildings, the allocation of public and private open spaces, building development parameters, the required number of parking bays, stormwater detention facilities, connection points to municipal water- and sewer services, updated land-use diagram and possible servitudes;

52. that if the fully detailed Site Development Plan, as mentioned in the above item, contradicts the approved Site Development Plan, the "Developer" will be responsible for the amendment thereof and any costs associated therewith;

53. that an amended Site Development Plan be submitted for approval prior to the approval of building plans for new buildings not indicated on the Site Development Plan applicable to this application and or changes to existing buildings or re-development thereof;

Internal- and Link Services

54. that the "*Developer*", at his/her cost, construct the internal (on-site) municipal civil services for the development, as well as any link (service between internal and available bulk municipal service) municipal services that need to be provided;

55. that the Directorate: Infrastructure Services may require the "*Developer*" to construct internal municipal services and/or link services to a higher capacity than warranted by the project, for purposes of allowing other existing or future developments to also utilise such services. The costs of providing services to a higher capacity could be offset against the Development Charges payable in respect of bulk civil engineering services if approved by the Directorate: Infrastructure Services;

56. that the detailed design and location of access points, circulation, parking, loading - and pedestrian facilities, etc., shall be generally in accordance with the approved Site Development Plan and / or Subdivision Plan applicable to this application;

57 that plans of all the internal civil services and such municipal link services as required by the Directorate: Infrastructure Services be prepared and signed by a Registered Engineering Professional before being submitted to the aforementioned Directorate for approval;

58. that construction of services may only commence after municipal approval has been obtained;

59. that the construction of all civil engineering infrastructure shall be done by a registered civil engineering services construction company approved by the "*Engineer*";

60. that the "*Developer*" ensures that his/her design engineer is aware of the Stellenbosch Municipality Design Guidelines & Minimum Standards for Civil Engineering Services (as amended) and that the design and construction/alteration of all civil engineering infrastructure shall be generally in accordance with this document, unless otherwise agreed with the Engineer. The said document is available in electronic format on request;

61. that a suitably qualified professional resident engineer be appointed to supervise the construction of all internal – and external services;

62. that all the internal civil services (water, sewer and stormwater), be indicated on the necessary building plans for approval by the Directorate: Infrastructure Services;

63. that prior to the issuing of the Certificate of Practical Completion, in terms of GCC 2015 Clause 5.14.1, all internal - and link services be inspected for approval by the "*Engineer*" on request by the "*Developer's*" Consulting Engineer;

64. that a Certificate of Practical Completion, in terms of GCC 2015 Clause 5.14.1 be issued before Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law will be issued (prior to transfer of individual units or utilization of buildings);

65. that Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law will only be issued if the bulk watermeter is installed, a municipal account for the said meter is activated and the consumer deposit has been paid;

66. that a complete set of test results of all internal – and external services (i.e. pressure tests on water - and sewer pipelines as well as densities on road structure and all relevant tests on asphalt), approved and verified by a professional registered engineer be submitted to the "Engineer" on request;

67. that the "*Developer*" shall adhere to the specifications of Telkom (SA) and or any other telecommunications service provider;

68. that the "*Developer*" shall be responsible for the cost for any surveying and registration of servitudes regarding services on the property;

69. that the "*Developer*" be liable for all damages caused to existing civil and electrical services of the "*Municipality*" relevant to this development. It is the responsibility of the contractor and/or sub-contractor of the "*Developer*" to determine the location of existing civil and electrical services;

70. that all connections to the existing services be made by the "*Developer*" under direct supervision of the "*Engineer*" or as otherwise agreed and all cost will be for the account of the "*Developer*".

71. that the developer takes cognizance of applicable tariffs by Council in respect of availability of services and minimum tariffs payable;

72. that the "*Developer*", at his/her cost, will be responsible for the maintenance of all the internal (on-site) municipal – and private civil engineering services constructed for this development

until at least 80% of the development units (i.e. houses, flats or GLA) is constructed and occupied whereafter the services will be formally handed over to the Owner's Association, in respect of private services, and to the Municipality in respect of public services;

Servitudes

73. that the "*Developer*" ensures that all main services including roads to be taken over by the Directorate: Infrastructure Services, all existing municipal – and or private services including roads, crossing private - and or other institutional property and any other services/roads crossing future private land/erven are protected by a registered servitude before Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law will be given;

74. The width of the registered servitude must be a minimum of 3 m or twice the depth of the pipe (measured to invert of pipe), whichever is the highest value. The "*Developer*" will be responsible for the registration of the required servitude(s), as well as the cost thereof;

75. that the "*Developer*" obtains the written approval of all affected owners where the route of a proposed service crosses the property of a third party before final approval of engineering drawings be obtained.

Stormwater Management

76. Taking into account the recent water crisis, and associated increase in borehole usage, it is important that the groundwater be recharged as much as possible. One way of achieving the above is to consider using Sustainable Drainage Systems (SuDS) approach wrt SW management. From Red Book: "SuDS constitute an approach towards managing stormwater runoff that aims to reduce downstream flooding, allow infiltration into the ground, minimise pollution, improve the quality of stormwater, reduce pollution in water bodies, and enhance biodiversity. Rather than merely collecting and discarding stormwater through a system of pipes and culverts, this approach recognises that stormwater could be a resource." The Developer is encouraged to implement SuDS principles that are practical and easily implementable. Details of such systems can be discussed and agreed with the Municipality and must be indicated on the engineering drawings.

77. that the geometric design of the roads and/or parking areas ensure that no trapped low-points are created with regard to stormwater management. All stormwater to be routed to the nearest formalized municipal system;

78. that overland stormwater escape routes be provided in the cadastral layout at all low points in the road layout, or that the vertical alignment of the road design be adjusted in order for the roads to function as overland stormwater escape routes. If this necessitates an amendment of the cadastral layout, it must be done by the "*Developer*", at his/her cost, to the standards of the Directorate: Infrastructure Services;

79. that the design engineer needs to apply his/her mind to ensure a design that will promote a sustainable urban drainage system which will reduce the impacts of stormwater on receiving aquatic environments;

80. that no disturbance to the river channel or banks be made without the prior approval in accordance with the requirements of the National Water Act;

81. that for larger developments, industrial developments or developments near water courses a stormwater management plan for the proposed development area, for both the minor and major storm events, be compiled and submitted for approval to the Directorate: Infrastructure Services.

82. that the approved management plan be implemented by the "*Developer*", at his/her cost, to the standards of the Directorate: Infrastructure Services. The management plan, which is to include an attenuation facility, is to be submitted concurrent with the detail services plans;

83. that in the case of a sectional title development, the internal stormwater layout be indicated on the necessary building plans to be submitted for approval.

84. that no overland discharge of stormwater will be allowed into a public road for erven with catchment areas of more than 1500m² and for which it is agreed that no detention facilities are required. The *"Developer"* needs to connect to the nearest piped municipal stormwater system with a stormwater erf connection which may not exceed a diameter of 300mm.

Roads

85. that, where applicable, the application must be submitted to the District Roads Engineer for comment and conditions . Any conditions set by the District Roads Engineer will be applicable;

86. that no access control will be allowed in public roads;

87. that the layout must make provision for all deliveries to take place on-site. Movement of delivery vehicles may not have a negative impact on vehicular – and pedestrian movement on public roads and or public sidewalks;

88. The design and lay-out of the development must be such that emergency vehicles can easily drive through and turn around where necessary;

89. that, prior to commencement of any demolition / construction work, a traffic accommodation plan for the surrounding roads must be submitted to the Directorate: Infrastructure Services for approval, and that the approved plan be implemented by the "*Developer*", at his/her cost, to the standards of the Directorate: Infrastructure Services;

90. that visibility splays shall be provided and maintained on each side of the new access in accordance with the standard specifications as specified in the Red Book with regard to sight triangles at intersections;

91. that each erf has its own access (drive-way), *(the new access(es) (dropped kerb(s)) to the proposed parking bays be)* constructed to standards as set out by the the Directorate: Infrastructure Services and in line with the Road Access Guideline;

92. that the access road to the existing facility be kept in an acceptable condition, i.e. maintained to a standard which will result in a comfortable ride for a standard passenger vehicle and to a standard which will not endanger the lives or property of road users;

93. that the parking area be provided with a permanent surface and be clearly demarcated and accessible. Plans of the parking layout, pavement layerworks and stormwater drainage are to be approved by the Directorate: Infrastructure Services before commencement of construction and that the construction of the parking area be to the standards of the Directorate: Infrastructure Services;

94. that no parking be allowed in the road reserve;

Bridge Requirement:

95. that any bridge(s) in the proposed road lay-out be designed and constructed to not impact on the natural flow of water, and to be able to accommodate the 1:50 year flood. The underside of the bridge(s) must be above the 1:100 year flood level;

96. that the bridge(s) be constructed by the *"Developer"*, at his/her cost, to the standards of the Directorate: Infrastructure Services. An adequate level of supervision by a suitably qualified Registered Engineering Professional must be provided for the full duration of the works. The Registered Engineering Professional shall arrange for any tests that may be necessary to determine whether the workmanship and materials conform to the required standards;
97. that a certificate stating that all work has been carried out in accordance with the Directorate: Infrastructure Services's specifications and requirements, signed by the Registered Engineering Professional, must be submitted with the "As Built" drawings on completion of the bridge(s). The certificate must make reference to all material testing, and confirm that the test results meet or exceed the requirements of the specifications;

Culvert Requirement:

98. that the proposed culvert under rail in the proposed road lay-out be designed and constructed by a professional engineer and to the satisfaction of all affected institutions i.e. Provincial Government, Stellenbosch Municipality, Metrorail, PRASA, etc;

99. that the culvert be constructed by the *"Developer"*, to the standards of the Directorate: Infrastructure Services. An adequate level of supervision by a suitably qualified Registered Engineering Professional must be provided for the full duration of the works. The Registered Engineering Professional shall arrange for any tests that may be necessary to determine whether the workmanship and materials conform to the required standards;

100. that a certificate stating that all work has been carried out in accordance with the Directorate: Infrastructure Services's specifications and requirements, signed by the Registered Engineering Professional, must be submitted with the "As Built" drawings on completion of the culvert. The certificate must make reference to all material testing, and confirm that the test results meet or exceed the requirements of the specifications;

101. that stormwater in the culvert be addressed without utilizing mechanical pumps to the satisfaction if the *"Engineer"*;

Wayleaves

102. that way-leaves / work permits be obtained from the Directorate: Infrastructure Services prior to any excavation / construction work on municipal land or within 3,0m from municipal services located on private property;

103. that wayleaves will only be issued after approval of relevant engineering design drawings;

104. that it is the Developer's responsibility to obtain wayleaves from any other authorities/service provider's who's services may be affected.

Owner's Association (Home Owner's Association or Body Corporate)

105. that an Owner's Association be established in accordance with the provisions of section 29 of the Stellenbosch Municipal Land Use Planning By-law and shall come into being upon the separate registration or transfer of the first deducted land unit arising from this subdivision;

106. that the Owner's Association take transfer of the private roads simultaneously with the transfer or separate registration of the first deducted land portion in such phase;

107. that in addition to the responsibilities set out in **section 29** of the Stellenbosch Municipal Land Use Planning By-law, the Owner's Association also be responsible for the maintenance of the private roads, street lighting, open spaces, retention facilities and all internal civil services;

108. that the Constitution of the Owner's Association specifically empower the Association to deal with the maintenance of the roads, street lighting, open spaces, retention facilities and all internal civil services;

109. that the Constitution of the Owner's Association specifically describes the responsibility of the Owner's Association to deal with refuse removal as described in the "Solid Waste" section of this document;

Solid Waste

110. The reduction, reuse and recycle approach should be considered to waste management:

- Households to reduce waste produced
- Re-use resources wherever possible
- Recycle appropriately

To give effect to the above, the following are some typical waste minimization measures that should be implemented by the Developer, to the satisfaction of the Stellenbosch Municipality:

- Procedures should be stipulated for the collection and sorting of recyclable materials;
- Provision should be made for centralized containers for recyclable materials including cardboard, glass, metal, and plastic and green waste;

- A service provider should be appointed to collect recyclable waste. Such service provider must be legally compliant in terms of all Environmental Legislation and/or approved by the Municipality's Solid Waste Management Department;
- Procedures for removal of waste (materials that cannot be reused or recycled) from the site should be stipulated;
- General visual monitoring should be undertaken to identify if these measures are being adhered to;
- Record shall be kept of any steps taken to address reports of dumping or poor waste management within the Development;

Where an Owner's Association is to be established in accordance with the provisions of section 29 of the Stellenbosch Municipal Land Use Planning By-law, the Constitution of the Owner's Association shall incorporate the above in the Constitution and:

- Each party's (Developer/Owner's Association/Home Owner) responsibilities w.r.t. waste management and waste minimization should be clearly defined in such constitution
- A set of penalties for non-compliance should be stipulated in the Constitution

111. that it be noted that the Solid Waste Branch will not enter private property, private roads or any access controlled properties for the removal of solid waste;

112. that the *"Developer"* must apply and get approval from the Municipality's Solid Waste Department for a waste removal service prior to clearance certificate or occupation certificate (where clearance not applicable). Contact person: Senior Manager: Solid Waste (021 808 8241; clayton.hendricks@stellenbosch.gov.za)

113. that should it not be an option for the *"Municipality"* to enter into an agreement with the *"Developer"* due to capacity constraints, the "*Developer*" will have to enter into a service agreement with a service provider approved by the *"Municipality"* prior to clearance certificate or occupation certificate (where clearance not applicable);

114. that if the "Developer" removes the waste by private service provider, provision must still be made for a refuse room should this function in future revert back to the "Municipality";

115. Access to all properties via public roads shall be provided in such a way that collection vehicles can complete the beats with a continuous forward movement;

116. Access shall be provided with a minimum travelable surface of 5 meters width and a minimum corner radii of 5 meters;

117. Maximum depth of cul-de-sac shall be 20 meters or 3 erven, whichever is the lesser. Where this requirement is exceeded, it will be necessary to construct a turning circle with a minimum turning circle radius of 11m or, alternatively – a turning shunt as per the Directorate: Infrastructure Services' specifications. With respect to the latter, on street parking are to be prohibited by way of "red lines" painted on the road surface as well as "no parking" signboards as a single parked vehicle can render these latter circles and shunts useless;

118. Minimum turning circle radius shall be 11 meters to the center line of the vehicle;

119. Road foundation shall be designed to carry a single axle load of 8.2 tons;

120. Refuse storage areas are to be provided for all premises other than single residential erven;

121. Refuse storage areas shall be designed in accordance with the requirements as specified by the Solid Waste Branch. Minimum size and building specifications is available from the Solid Waste Branch;

122. A single, centralized, refuse storage area which is accessible for collection is required for each complete development. The only exception is the case of a single residential dwelling, where a refuse storage area is not required;

123. The refuse storage area shall be large enough to store all receptacles needed for refuse disposal on the premises, including all material intended to recycling. No household waste is allowed to be disposed / stored without a proper 240 ℓ Municipal wheelie bin;

124. The size of the refuse storage area depends on the rate of refuse generation and the frequency of the collection service. For design purposes, sufficient space should be available to store two weeks' refuse;

125. Where the premises might be utilized by tenants for purposes other than those originally foreseen by the building owner, the area shall be sufficiently large to store all refuse generated, no matter what the tenant's business may be;

126. All black 85 ℓ refuse bins or black refuse bags is in the process of being replaced with 240 ℓ black municipal wheeled containers engraved with WC024 in front, and consequently refuse storage areas should be designed to cater for these containers. The dimensions of these containers are:

Commercial and Domestic	585 mm wide x 730 mm deep x 1100 mm high

127. With regard to flats and townhouses, a minimum of 50 litres of storage capacity per person, working or living on the premises, is to be provided at a "once a week" collection frequency;

128. Should designers be in any doubt regarding a suitable size for the refuse storage area, advice should be sought from the Solid Waste Department : Tel 021 808-8224

129. Building specifications for refuse storage area:

Floor

The floor shall be concrete, screened to a smooth surface and rounded to a height of 75mm around the perimeter. The floor shall be graded and drained to a floor trap (See: Water Supply and Drainage).

Walls and Roof

The Refuse Storage Area shall be roofed to prevent any rainwater from entering. The walls shall be constructed of brick, concrete or similar and painted with light color high gloss enamel. The height of the room to the ceiling shall be not less than 2.21 meters.

Ventilation and Lighting

The refuse storage area shall be adequately lit and ventilated. The room shall be provided with a lockable door which shall be fitted with an efficient self-closing devise. The door and ventilated area shall be at least 3 metres from any door or window of a habitable room. Adequate artificial lighting is required in the storage area.

Water Supply and Drainage

A tap shall be provided in the refuse storage area for washing containers and cleaning spillage. The floor should be drained towards a 100 mm floor trap linked to a drainage pipe

which discharges to a sewer gully outside the building. In some cases a grease gully may be required.

130. Should the refuse storage area be located at a level different from the level of the street entrance to the property, access ramps are to be provided as stairs are not allowed. The maximum permissible gradient of these ramps is 1:7;

131. A refuse bay with minimum dimensions of 15 meters in length x 2, 5 meters in width plus 45 degrees splay entrance, on a public street, must be provided where either traffic flows or traffic sight lines are affected. The refuse bays must be positioned such that the rear of the parked refuse vehicle is closest to the refuse collection area;

132. Any containers or compaction equipment acquired by the building owner must be approved by the Directorate: Infrastructure Services, to ensure their compatibility with the servicing equipment and lifting attachments;

133. Refuse should not be visible from a street or public place. Suitable screen walls may be required in certain instances;

134. Access must be denied to unauthorized persons, and refuse storage areas should be designed to incorporate adequate security for this purpose;

135. All refuse storage areas shall be approved by the Directorate: Infrastructure Services, to ensure that the Council is able to service all installations, irrespective of whether these are currently serviced by Council or other companies;

AS-BUILTs

136. The "*Developer*" shall provide the "*Municipality*" with:

a. a complete set of as-built paper plans, signed by a professional registered engineer;

b. a CD/DVD containing the signed as-built plans in an electronic DXF-file format, reflecting compatible layers and formats as will be requested by the "*Engineer*" and is reflected herewith as Annexure X;

c. a completed Asset Verification Sheet in Excell format, reflecting the componitization of municipal services installed as part of the development. The Asset Verification Sheet

will have to be according to the IMQS format, as to be supplied by the "Engineer", and is to be verified as correct by a professional registered engineer;

d. a complete set of test results of all internal – and external services (i.e. pressure tests on water - and sewer pipelines as well as densities on road structure and all relevant tests on asphalt), approved and verified by a professional registered engineer;

e. Written verification by the developer's consulting engineer that all professional fees in respect of the planning, design and supervision of any services to be taken over by the "*Municipality*" are fully paid;

137. All relevant as-built detail, as reflected in the item above, of civil engineering services constructed for the development, must be submitted to the "*Engineer*" and approved by the "*Engineer*" before any application for Certificate of Clearance will be supported by the "*Engineer*";

138. The Consulting Civil Engineer of the "*Developer*" shall certify that the location and position of the installed services are in accordance with the plans submitted for each of the services detailed below;

139. All As-built drawings are to be signed by a professional engineer who represents the consulting engineering company responsible for the design and or site supervision of civil engineering services;

140. Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law shall not be issued unless said services have been inspected by the "*Engineer*" and written clearance given, by the "*Engineer*";

Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law

141. It is specifically agreed that the "*Developer*" undertakes to comply with all conditions of approval as laid down by the "*Municipality*" before clearance certificates shall be issued, unless otherwise agreed herein;

142. that the "*Municipality*" reserves the right to withhold any clearance certificate until such time as the "*Developer*" has complied with conditions set out in this contract with which he/she is in default. Any failure to pay monies payable in terms of this contract within 30 (thirty) days after an account has been rendered shall be regarded as a breach of this agreement and the

"*Municipality*" reserves the right to withhold any clearance certificate until such time as the amount owing has been paid;

143. that clearance will only be given per phase and the onus is on the "*Developer*" to phase his development accordingly;

144. **The onus will be on the "Developer" and or his professional team to ensure that all land-use conditions have been complied with before submitting an application for a Section 28 Certification in terms of the Stellenbosch Municipal Land Use Planning By-law. Verifying documentation (proof of payment in respect of Development Charges, services installation, etc.) must be submitted as part of the application before an application will be accepted by this Directorate;**

145. that any application for Certificate of Clearance will only be supported by the "*Engineer*" once all relevant as-built detail, as reflected in the item "AS-BUILT's" of this document, is submitted to the "*Engineer*" and approved by the "*Engineer*".

Occupation Certificate in terms of Section 14 of the the National Building Regulations and Building Standards Act 103 of 1977 (where a subdivision and clearance certificate is not applicable)

146. It is specifically agreed that the "*Developer*" undertakes to comply with all conditions of approval as laid down by the "*Municipality*" before occupation certificates shall be issued, unless otherwise agreed herein;

147. that the "*Municipality*" reserves the right to withhold any occupation certificate until such time as the "*Developer*" has complied with conditions set out in this contract with which he/she is in default. Any failure to pay monies payable in terms of this contract within 30 (thirty) days after an account has been rendered shall be regarded as a breach of this agreement and the "*Municipality*" reserves the right to withhold any occupation certificate until such time as the amount owing has been paid;

148. **The onus will be on the "Developer" and or his professional team to ensure that all land-use conditions have been complied with before submitting an application for an occupation certificate in terms of the National Building Regulations. Verifying documentation (proof of payment in respect of Development Charges, services installation, etc.) must be submitted as part of the application before an application will be accepted by this Directorate;**

Avoidance of waste, nuisance and risk

149. Where in the opinion of the "*Municipality*" a nuisance, health or other risk to the public is caused due to construction activities and/or a lack of maintenance of any service, the "*Municipality*" may give the "*Developer*" and or OWNER'S ASSOCIATION written notice to remedy the defect failing which the "*Municipality*" may carry out the work itself or have it carried out, at the cost of the "*Developer*" and or OWNER'S ASSOCIATION.

Streetlighting

150. The "*Developer*" will be responsible for the design and construction at his own expense of all internal street lighting services and street lighting on link roads leading to his development (excluding Class 1, 2 and 3 Roads) according to specifications determined by the municipality's Manager: Electrical Services and under the supervision of the consulting engineer, appointed by the "*Developer*";

151. Prior to commencing with the design of street lighting services, the consulting electrical engineer, as appointed by the "*Developer*" must acquaint himself with, and clarify with the municipality's Manager: Electrical Engineering, the standards of materials and design requirements to be complied with and possible cost of connections to existing services;

152. The final design of the complete internal street lighting network of the development must be submitted by the consulting electrical engineer, as appointed by the "*Developer*", to the municipality's Manager: Electrical Engineering for approval before any construction work commences;

153. Any defect with the street lighting services constructed by the "*Developer*" which may occur during the defects liability period of 12 (TWELVE) months and which occurs as a result of defective workmanship and/or materials must be rectified immediately / on the same day the defect was brought to the attention of the consulting electrical engineer, appointed by the "*Developer*". Should the necessary repair work not be done within the said time the "*Municipality*" reserves the right to carry out the repair work at the cost of the "*Developer*";

154. The maintenance and servicing of all private internal street lighting shall be the responsibility and to the cost of the "Developer" and or Home Owner's Association.

TYRONE KING Pr Tech Eng
MANAGER: DEVELOPMENT (INFRASTRUCTURE SERVICES)

W:\2.0 DEVELOPMENT\00 Developments\2104 (TK) Farm 742-5 Paarl (LU-10577) (Stellenbosch Bridge Application 1)\2104 (TK) Farm 742-5 Paarl (LU-10577) (Stellenbosch Bridge Application 1)_1.doc

ATTACHMENT X

Geographic Information System (GIS) data capturing standards

In drawing up the As-build Plans relating to this development, the consultant must create the following separate layers in ESRI .shp, electronic file format in order for the data to reflect spatially correct.

Layer name	Content
TITLE	Title information, including any endorsements and references
NOTES	All noted information, both from the owner / surveyor and SG
PARENT_PROPLINES	Parent property lines
PARENT_PROPNUM	Parent erf number (or portion number)
PROPLINES	New portion boundaries
PROPANNO	New erf numbers
SERVLINES	Servitude polygons
SERVANNO	Servitude type
STREET_NAMES	Road centre lines with street names
STREET_NUMBERS	Points with street numbers
COMPLEX BOUNDARIES	Where applicable, polygon with complex name (mention whether gated or not and if so, where gates are)
SUBURB	Polygon with suburb name, where new suburb / township extension created
ESTATE	Where applicable, polygon with estate name (mention whether gated or not and if so, where gates are)

When data is provided in a .shp format it is mandatory that the .shx, .dbf, files should accompany the shapefile. The prj file containing the projection information must also accompany the shapefile.

It is important that different geographical elements for the GIS capture process remains separate. That means that political boundaries like wards or suburbs be kept separate from something like rivers. The same applies for engineering data types like water lines, sewer lines, electricity etc. that it is kept separate from one another. When new properties are added as part of a development, a list of erf numbers with its associated SG numbers must be provided in an electronic format like .txt, .xls or .csv format.

For road layer shapefiles; the road name, the from_street and to_street where applicable as well as the start en end street numbers needs to be included as part of the attributes. A rotation field needs to be added to give the street name the correct angle on the map.

In addition to being geo-referenced and in WGS 1984 Geographic Coordinate System, the drawing must be completed using real world coordinates based on the Stellenbosch

..., SKW1.10, SKW1.11, SKW1.15, ..16, SKW1.21 & SKW1.27 loper – own cost) 81, SKW.B3 & SKW.B4 icipality - currently on cipal budget OR Developer - DCs)	• Master plan items SK2.4, SK2.5, SK2.6, SK2.7, SK2.8 (Developer – own cost)	• Brick-built switching substation • Primary MV cabling from Eskom 132/11kV step-down substation • Four secondary MV cable bulk supplies	management plan to finalise improvements	1 577 units	28 000m²
B5b Phase 1 of New 12 Ml voir (Municipality – if approved unicipal budget OR Developer DCs)			• Stormwater management plan to finalise	1 577 units	118 500m²
		• 132/11kV step-down substation • new brick-built switching substation, • interlinking primary MV cabling and secondary MV cable rings		2 200 units	320 000m²
er master plan items to be ed	• SKS1.8, SKS1.13 SKS1.14, SKS5.2 & SKS5.3 • SKS1.7, SKS6.2 & SKS 6.3 • SKS1.12 & SKS 7.3 • New Pump Station • Upgrade Klapmuts WWTW (Municipality – if approved on municipal budget OR Developer - with DCs)	• Brick-built switching substation • Primary MV cabling from 132/11kV step-down substation and • Secondary MV cable rings	• Stormwater management plan to finalise	6 000 units	680 000m²

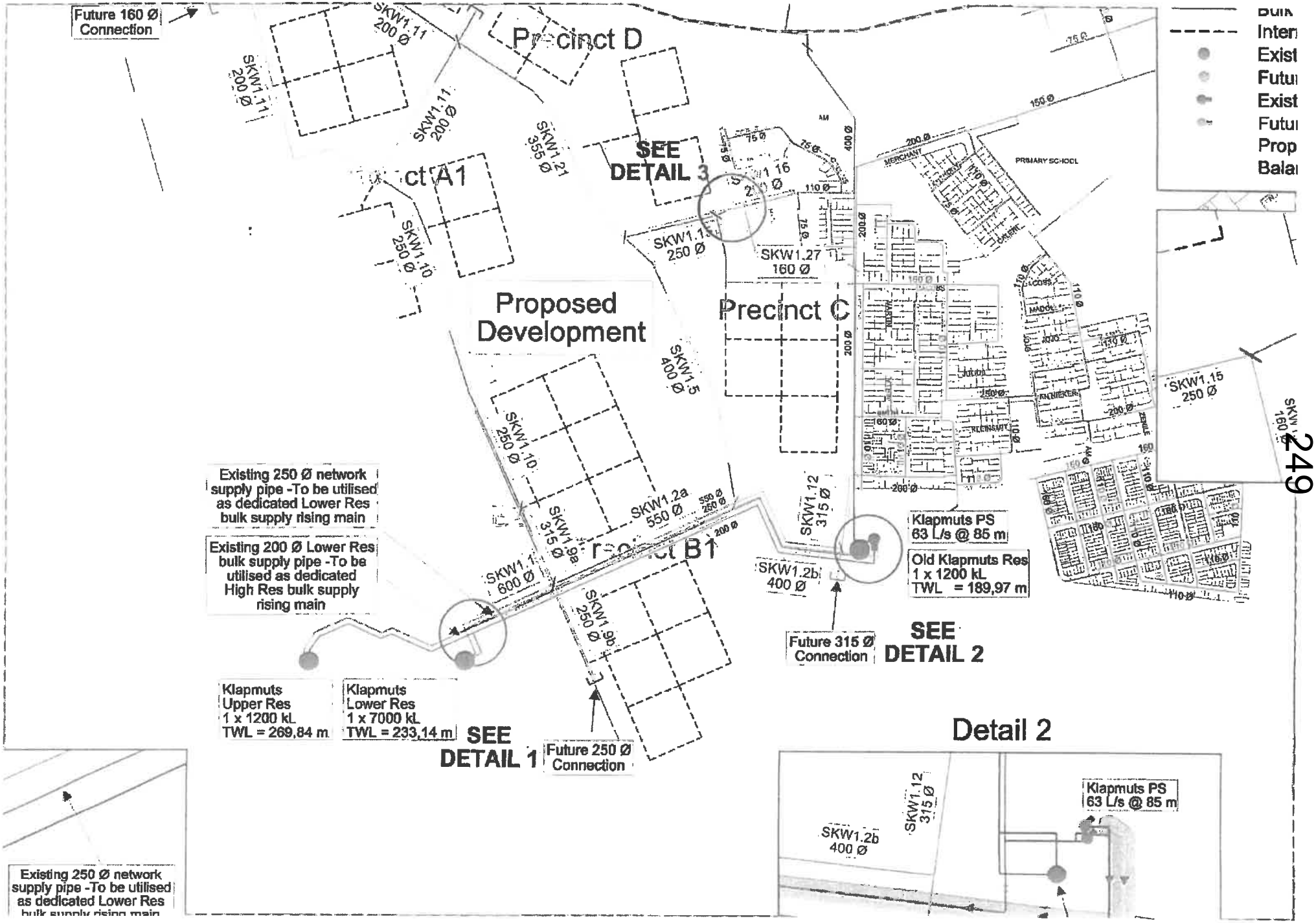
Roads			**Development Rights (up to)**	
Upgrades (*refer to Figure A*)			Residential	Non-residential
a) Dualling of R44 between Klapmuts-Simondium Rd & N1 (up to and including) (Developer – DCs to a max of 20% of total project value – Provincial Road) a) Upgrade of N1/R44 & N1/R304 interchanges Developer – own cost – Provincial/National Roads) a) Upgrade of R304/Old Paarl Rd intersection Developer – own cost – Provincial Roads) Left-turn lanes on two R44-approaches to R44/Klapmuts (Developer – DCs – Provincial/Municipal Roads) –Simondium Rd intersection (Developer – DCs to a max of 20% of total project value – Provincial Roads)	1) b) Groenfontein Rd-interchange on N1 (Developer – own cost – Provincial Roads/National Roads) 2) b) Upgrade of Groenfontein Rd between interchange and Old Paarl Rd (Developer – DCs to a max of 20% of total project value – Provincial Road) 3) b) Roundabout at intersection of Old Paarl Rd/Groenfontein Rd (Developer – DCs to a max of 50% of total project value – Groenfontein Rd is provincial north of Old Paarl Road and municipal south of Old Paarl Road.)			
Access road link to Merchant St & roundabout at the Merchant St/access road intersection (Developer – DCs – Municipal Road) Realignment of section of Merchant St & roundabout at the Groenfontein Rd/Merchant St intersection (Developer – DCs – Municipal Road) Underpass-road (dual) (Klapmuts Hills Rd) between Old Paarl Rd and Klapmuts Hills Rd & roundabouts at intersections (Developer – DCs – Municipal Road) Klapmuts Hills single lane road from second industrial access (Precinct C) to underpass road (Developer – DCs – Municipal Road) Dualling of Old Paarl Rd between Groenfontein Rd and underpass road & roundabouts at intersections (Developer – DCs to a max of 20% of total project value – Provincial Road) Dedicated left-turn lane along the Stellengate Boulevard-approach to the R44 intersection (Developer – DCs – Provincial/Municipal Road)			1 577 units	118 500m²
Groenfontein Rd-interchange on N1 and upgrade of Groenfontein Rd (if not yet implemented in 1b) (Developer – own cost - Provincial Roads/National Roads) Dualling of Klapmuts Hills Rd between underpass-road and access road link to Merchant St (Developer – DCs – Municipal Road)			2 200 units	320 000m²

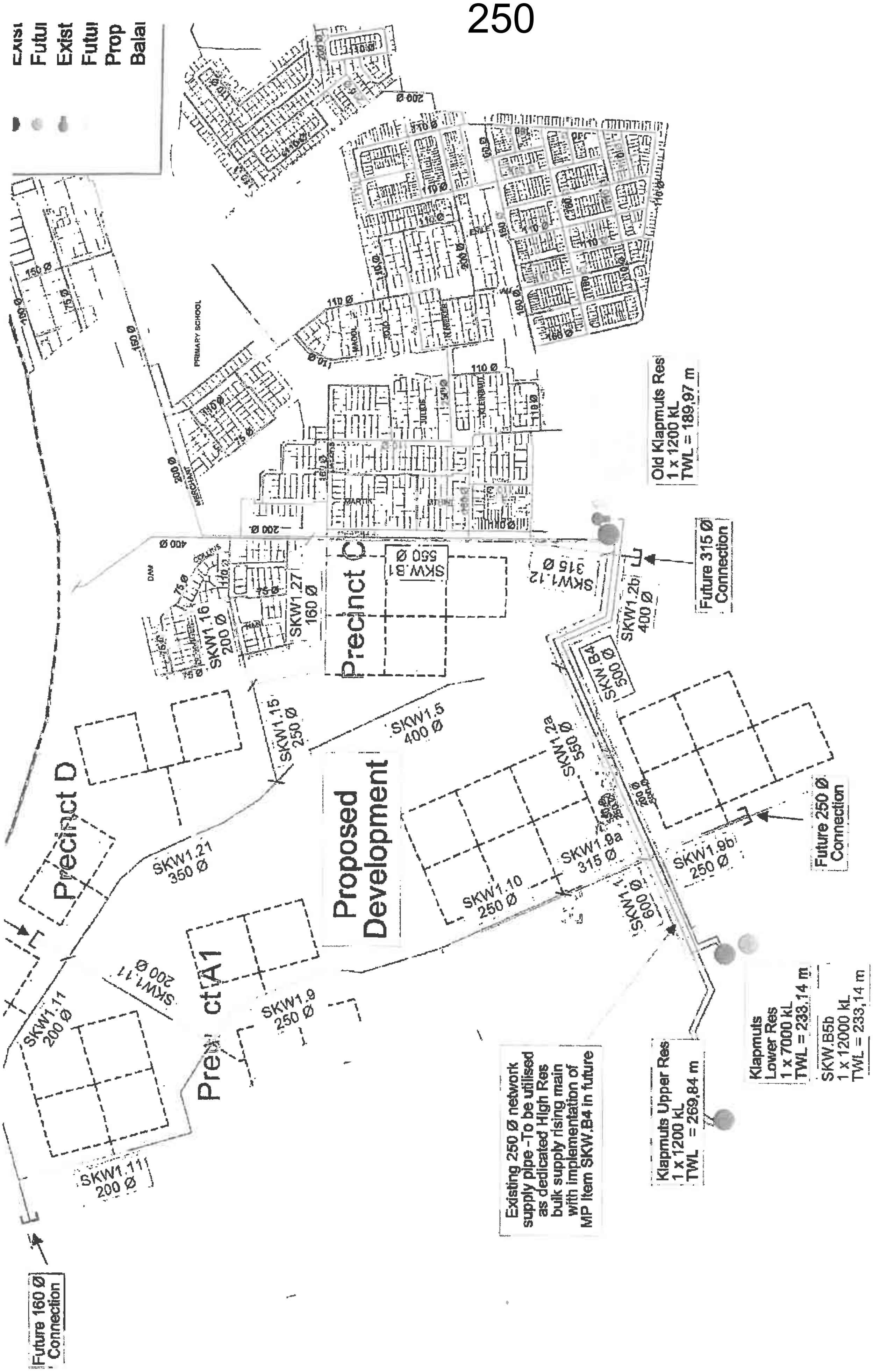
UDS Figure A)

he Municipality's budget and where DCs have been indicated as "Developer – DCs": The full cost of the upgrade may be offset from DCs. Should the DCs available not be enough to cov ost.

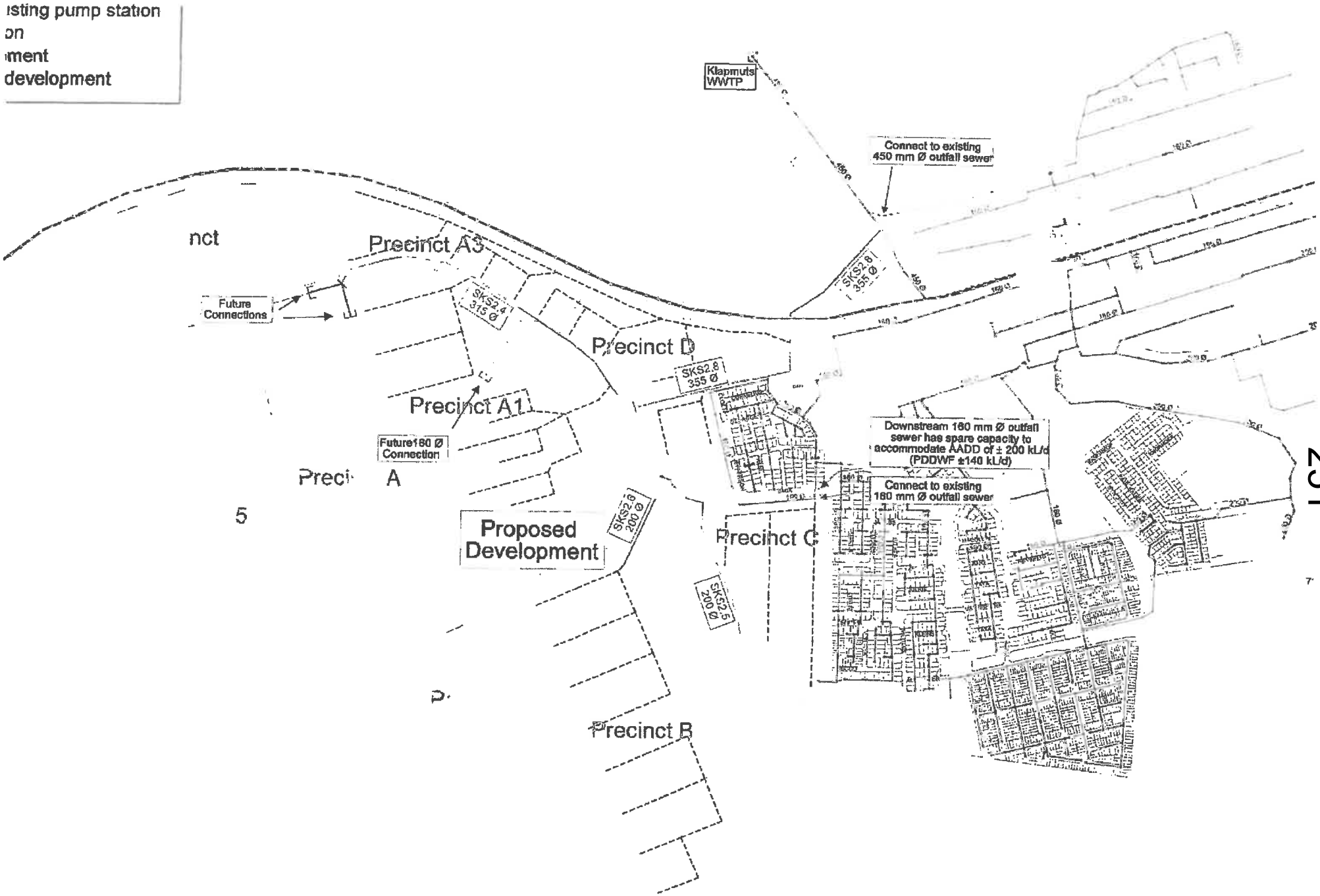
d as "Developer – own cost", this does not exclude the Developer from obtaining external funding sources i.e. from the relevant road authority e.g. Provincial and/or National Governm

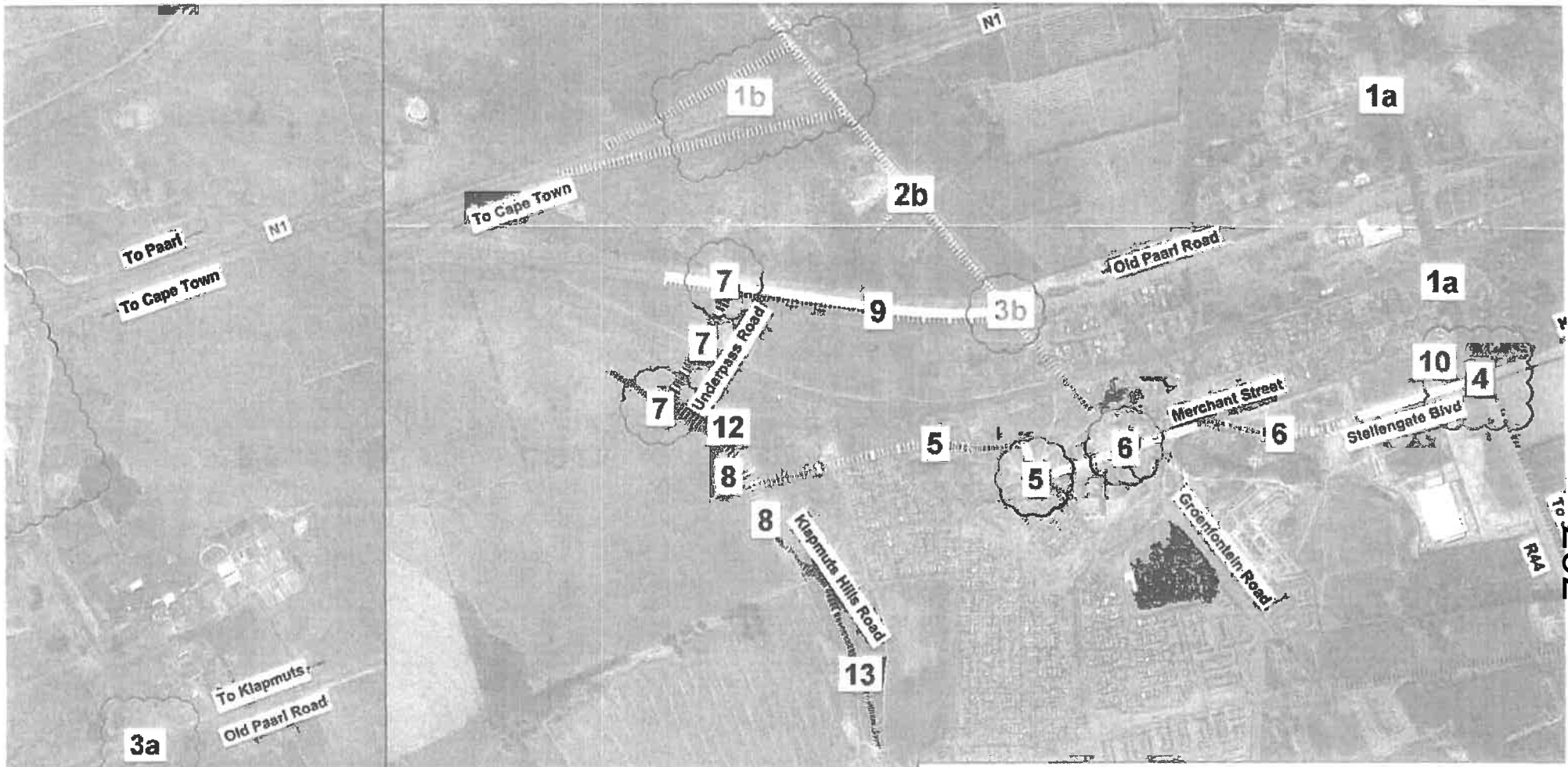
itilisation of DCs on Municipal / Provincial Roads: Clause 14.6 of 2020/21 Stellenbosch Municipality DC Policy:
)% of the value of upgrades on provincial roads have been allowed for in the determination of the Development Charges tariffs and therefore this percentage will be allowed to be offs elopment Charges against the full cost of provincial road upgrades would result in an under-recovery of Development Charges for municipal roads. Exception is upgrades to intersection re the full amount can be offset from Development Charges."
sections of National and Provincial Roads – not included in our DC tariffs – cannot be offset from DCs.


Future 160 Ø Connection
Precinct D
SKW1.11 200 Ø
SKW1.11 200 Ø
SKW1.11 200 Ø
SKW1.21 355 Ø
SEE DETAIL 3
ct A1
SKW1.10 250 Ø
SKW1.13 250 Ø
SKW1.16 250 Ø
SKW1.27 160 Ø
Proposed Development
Precinct C
SKW1.5 400 Ø
SKW1.10 250 Ø
SKW1.9a 315 Ø
SKW1.2a 550 Ø
SKW1.12 315 Ø
Existing 250 Ø network supply pipe -To be utilised as dedicated Lower Res bulk supply rising main
Existing 200 Ø Lower Res bulk supply pipe -To be utilised as dedicated High Res bulk supply rising main
SKW1.1 600 Ø
ct B1
SKW1.9b 250 Ø
SKW1.2b 400 Ø
Klapmuts PS 63 L/s @ 85 m
Old Klapmuts Res 1 x 1200 kL TWL = 189,97 m
Future 315 Ø Connection
SEE DETAIL 2
Klapmuts Upper Res 1 x 1200 kL TWL = 269,84 m
Klapmuts Lower Res 1 x 7000 kL TWL = 233,14 m
SEE DETAIL 1
Future 250 Ø Connection
SKW1.15 250 Ø
SKW1.15 160 Ø
PRIMARY SCHOOL
Detail 2
SKW1.12 315 Ø
SKW1.2b 400 Ø
Klapmuts PS 63 L/s @ 85 m
Existing 250 Ø network supply pipe -To be utilised as dedicated Lower Res bulk supply rising main



Old Klapmuts Res
1 x 1200 kL
TWL = 189,97 m
Future 315 Ø Connection
SKW.B1 550 Ø
SKW1.12 315 Ø
SKW1.2b 400 Ø
SKW.B4 500 Ø
Precinct C
SKW1.27 160 Ø
SKW1.16 200 Ø
SKW1.15 250 Ø
SKW1.5 400 Ø
SKW1.2a 550 Ø
Precinct D
Proposed Development
SKW1.21 350 Ø
SKW1.9a 315 Ø
SKW1.9b 250 Ø
Future 250 Ø Connection
SKW1.10 250 Ø
SKW1.1 600 Ø
SKW1.11 200 Ø
SKW1.9 250 Ø
SKW1.111 200 Ø
Future 160 Ø Connection
Existing 250 Ø network supply pipe - To be utilised as dedicated High Res bulk supply rising main with implementation of MP Item SKW.B4 in future
Klapmuts Upper Res
1 x 1200 kL
TWL = 269,84 m
Klapmuts Lower Res
1 x 7000 kL
TWL = 233,14 m
SKW.B5b
1 x 12000 kL
TWL = 233,14 m
PRIMARY SCHOOL


isting pump station
on
ment
development
Klapmuts WWTP
Connect to existing 450 mm Ø outfall sewer
nct
Precinct A3
Future Connections
SKS2.4 315 Ø
SKS2.8 355 Ø
Precinct D
SKS2.8 355 Ø
Precinct A1
Future160 Ø Connection
Downstream 160 mm Ø outfall sewer has spare capacity to accommodate AADD of ± 200 kL/d (PDDWF ±140 kL/d)
Connect to existing 160 mm Ø outfall sewer
Proposed Development
SKS2.6 200 Ø
Precinct C
SKS2.5 200 Ø
Precinct B



TELLENBOSCH BRIDGE: RIGHTS ROLL-OUT & SERVICES THRESHOLDS

Threshold	Roads		
	Peak Hour Trip Generation (as per TIAs)	Upgrades (refer to Figure A)	
Background	n/a	1) a) Dualling of R44 between Klapmuts-Simondium Rd & N1 (up to and including) 2) a) Upgrade of N1/R44 & N1/R304 interchanges 3) a) Upgrade of R304/Old Paarl Rd intersection 4) Left-turn lanes on two R44-approaches to R44/Klapmuts-Simondium Rd intersection	1) b) Groenfontein Rd-interchange on N1 2) b) Upgrade of Groenfontein Rd between interchange and Old Paarl Rd 3) b) Roundabout at intersection of Old Paarl Rd/Groenfontein Rd
1 + 2	AM: 2 214 + 461 = 2 675 PM: 1 794 + 461 = 2 255	5) Access road link to Merchant St & roundabout at the Merchant St/access road intersection 6) Realignment of section of Merchant St & roundabout at the Groenfontein Rd/Merchant St intersection 7) Underpass-road (dual) (Klapmuts Hills Rd) between Old Paarl Rd and Klapmuts Hills Rd & roundabouts at intersections 8) Klapmuts Hills single lane road from second industrial access (Precinct C) to underpass road 9) Dualling of Old Paarl Rd between Groenfontein Rd and underpass road & roundabouts at intersections 10) Dedicated left-turn lane along the Stellengate Boulevard-approach to the R44 intersection 11) Groenfontein Rd-interchange on N1 and upgrade of Groenfontein Rd (if not yet implemented in 1b) 12) Dualling of Klapmuts Hills Rd between underpass-road and access road link to Merchant St 13) Extension of Klapmuts Hills Rd to Precinct B second access	
3	Total including existing rights: AM: 3 908 PM: 5 482		
4	TBD	14) To be completed following Regional Road Network Study prior to submission of Application 4	

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK

MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE O

TRAFFIC IMPACT STUDY

Contact Address:
iCE Group (Stellenbosch),
P O Box 131,
Stellenbosch, 7599

Tel No: +27 (0) 21 880 0443
Fax No: +27 (0) 21 880 0390
e-mail: piet@icegroup.co.za

Contact Person: Piet van Blerk
Your Ref: Farm 744/2, Klapmuts
Our Ref: iCE/S/493A **Date:** 13 December 2019

Anton Lotz Town & Regional Planning

Attention: Mr Anton Lotz

Sir

APPLICATION FOR REZONING AND SUBDIVISION OF FARM 744 PORTION 2, KLAPMUTS, STELLENBOSCH: TRAFFIC IMPACT STATEMENT

This company was appointed to prepare a Traffic Impact Statement (TIS) for the proposed development of Farm 744/2, Klapmuts, Stellenbosch.

1. BACKGROUND AND LOCALITY

The subject property is situated to the west of the developed area of Klapmuts, which is situated to the west of the R44 and south of the N1, Stellenbosch. See the ***Locality Plan*** attached.

A few buildings exist on the southern portion of the subject property, with the remainder undeveloped.

This TIS accompanies the Application for Rezoning and Subdivision of Farm 744/2, Stellenbosch.

2. PROPOSED DEVELOPMENT

2.1 Proposed Development

The proposed development will be of light industrial nature, with the anticipated bulk to be developed in the order of 90 500 m², and the Gross Leasable Area (GLA) 76 925 m². A potential layout is as indicated on the attached ***Development Framework Plan***, prepared by *Osmond Lange Architects and Planners (Pty) Ltd*.

2.2 Access to the Property

Access to the property is currently informally obtained from the existing road network within Klapmuts (mainly Merchant Street). Access to the proposed development will be obtained from an access road to Merchant Street between its intersections with Gone Street and Adams Street – see the photo below. Detail on access will be discussed in *paragraph 4* below.

Stellenbosch office:
Tel: 021 8800 443
Fax: 021 8800 390

Directors:
P J Van Blerk PrEng

iCE Group (Overberg) t/a
iCE Group (Stellenbosch)

Reg No 2006/133238/23

Photo 1 : Proposed access to subject property

3. TRAFFIC

3.1 Existing Traffic

Information regarding existing weekday peak hour traffic was obtained from counts previously conducted at the following intersections on Tuesday, 14 May 2019 from 06h30 to 08h30 and again from 16h30 to 18h30:

1. R44/Stellengate Boulevard signalised intersection
2. Stellengate Boulevard/Simonsberg Business Park Access roundabout
3. Stellengate Boulevard/Merchant Street mini-circle
4. Groenfontein Road/Merchant Street intersection

The peak hour volumes derived from these counts are indicated in ***Figure 1*** attached.

3.2 Traffic Growth

Based on previous studies compiled in the area, and in accordance with the TMH17 *Typical Traffic Growth Rates* in average- to above average growth areas, an annual growth rate of 4% per annum was applied to the peak hour traffic along the R44. To account for possible traffic growth along the residential streets within Klapmuts, an annual growth rate of 2% per annum was applied.

In accordance with the requirements of WCG, a 5-year growth period was assessed. The existing 2019 peak hour volumes were therefore increased by the abovementioned annual growth rates for five (5) years. An application for a similar light industrial development further along Groenfontein Road was recently submitted – the potential peak hour traffic as per its TIA was therefore taken into consideration. To obtain the estimated 2024 peak hour volumes as indicated in ***Figure 2*** attached, the abovementioned trips were added to the increased volumes.

It should be noted that the adjacent vacant property (to the west) has development rights obtained about eight years ago, but which has not yet been acted on. Should

the said rights be exercised before the proposed development contained in this report, the road upgrades required in accordance with its conditions of approval will be required to accommodate the peak hour traffic considered background traffic for the purpose of this proposal. As the developer is the same for both these developments and the developer intends developing the light industrial first, the traffic expected to be generated by the above-mentioned development rights was not taken into consideration in this TIA.

3.3 Traffic Generation

Trip generation rates as contained in the TMH17 *South African Trip Data Manual* were consulted to calculate the potential peak hour traffic generated by the proposed development. The said manual suggests a rate of 0,6 trips per 100 m^2 GLA for manufacturing, with an 80/20 in/out split during the AM peak hour and vice versa during the PM peak hour. Based on this, the proposed development will thus have the potential to generate 461 peak hour trips (369 in, 92 out during the AM peak hour and vice versa during the PM peak hour).

3.4 Traffic Distribution

The peak hour traffic that can potentially be generated as calculated above was distributed to the road network based on the existing directional split in peak hour traffic in the vicinity of the subject property, as well as the location of the property and knowledge of the area.

To account for employees potentially residing within Klapmuts, it was assumed that approximately 20% of the traffic generated by the proposed light industrial development will remain within Klapmuts, with the remaining 80% distributed to the R44 and Klapmuts-Simondium Road based on the existing directional split in peak hour traffic at the R44/Klapmuts-Simondium Road intersection.

The said distribution is indicated in ***Figure 3*** attached.

3.5 Traffic Analysis

Traffic analyses of the intersections were done by means of the Sidra Intersection 8.0 software. Service levels A to D are considered acceptable, with D the critical. The link volumes were analysed by means of the methods contained in the Highway Capacity Manual.

The intersections as listed in *paragraph 3.1* above, consist of lane layouts as follows (*aerial photos dated 2016*).

R44/Stellengate Boulevard intersection:

This intersection is currently signalised, with dedicated right-turn lanes on all approaches. See the photo below.

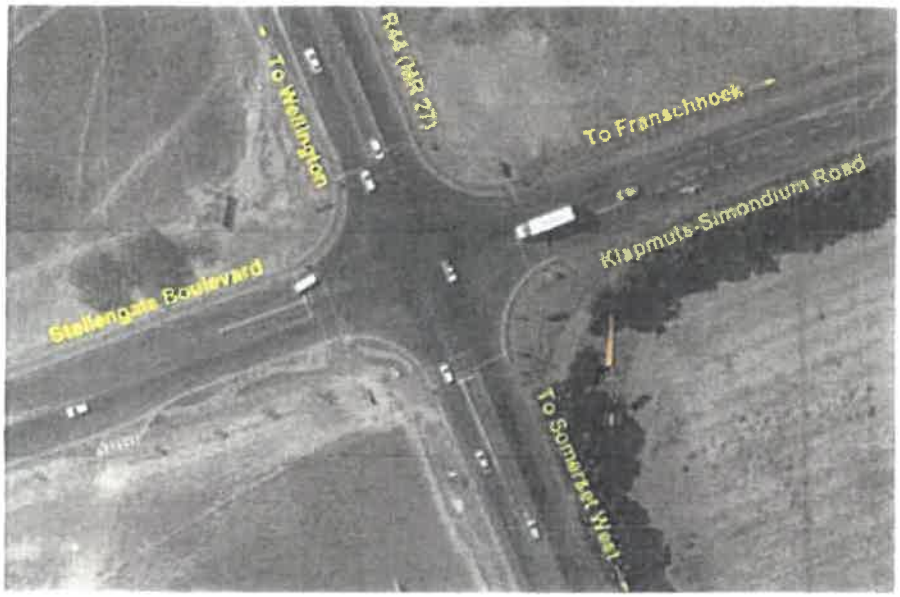


Photo 2 : Existing R44/Stellengate Boulevard intersection lane layout

Stellengate Boulevard/Simonsberg Business Park Access intersection:

This intersection is currently a roundabout with single circulating lane, and left-slip lane along Stellengate Boulevard towards the Business Park Access. See the photo below.

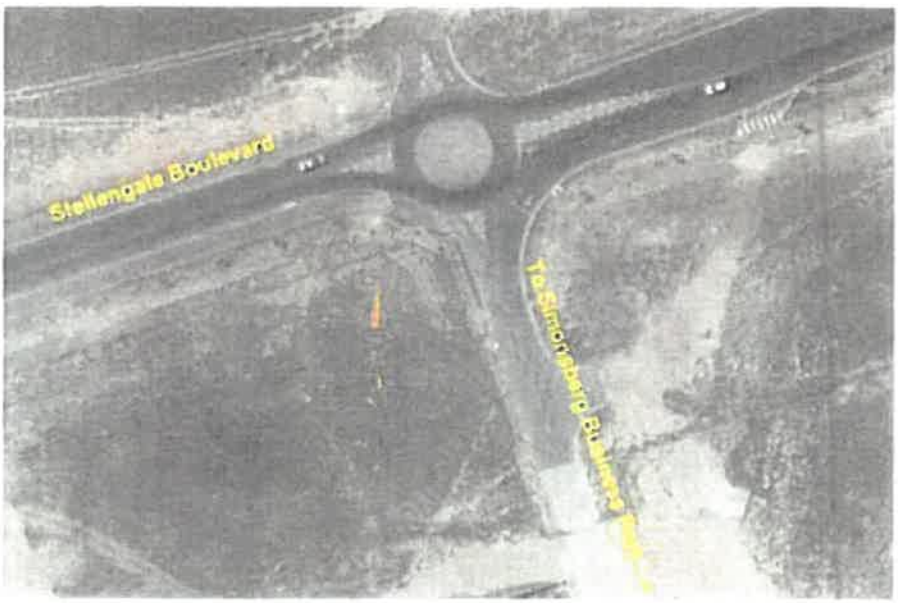


Photo 3 : Existing Stellengate Boulevard/Simonsberg Business Park Access intersection lane layout

Stellengate Boulevard/Merchant Street intersection:

This intersection is currently a mini-circle. See the photo below

Photo 4 : Existing Stellengate Boulevard/Merchant Street intersection lane layout

Groenfontein Road/Merchant Street intersection:

This intersection is currently stop-controlled on the Groenfontein Road-approaches, with free-flow conditions along Merchant Street. The fourth leg to the intersection was constructed since the aerial photograph. The said road link provides access to the taxi rank recently implemented. See the photo below.

Photo 5 : Existing Groenfontein Road/Merchant Street intersection lane layout

3.5.1 Analyses of Existing and Estimated Peak Hour Volumes (excluding proposed development)

Link Volumes:

As indicated in ***Figure 1*** and ***Figure 2*** attached, the following link volumes (total two-way traffic) are experienced/expected:

	Existing AM/PM (***Fig 1***)	Estimated AM/PM (***Fig 2***)
R44 **north** of Klapmuts-Simondium Road	1 685 / 1 474	2 199 / 1 958
R44 **south** of Klapmuts-Simondium Road	1 387 / 1 146	1 750 / 1 462

The link volumes tabled above, indicate that the dualling of the R44 north of the Klapmuts-Simondium Road intersection (towards Old Paarl Road) will be required to accommodate the background traffic (estimated 2024 peak hour volumes). Based on the traffic growth rate applied, it is anticipated that the dualling of the section of the R44 south of the abovementioned intersection will be required within approximately nine (9) years' time (± year 2026).

It can thus be concluded that the dualling of the R44 north of its intersection with the Klapmuts-Simondium Road will be required to accommodate the 2024 background traffic.

R44/Stellengate Boulevard intersection:

During peak times, queuing is currently experienced at this intersection which seems to be as result of vehicles backed up from the R44/Old Paarl Road intersection.

According to the Sidra analyses, with independent signal phasing and timing, and assessing the intersection in isolation, acceptable service levels C and above are experienced during the existing AM and PM peak hours.

During the estimated peak hours, the Sidra analyses show similar service levels, however, the queuing on the shared through-left lane on the northern R44-approach doubles (to approximately 130 metres). Based on this, it is suggested that the provision of a dedicated left-turn lane be considered on the northern R44-approach to the intersection. With the proposed turning lane in place, the queuing can be expected to subside.

Furthermore, it has been experienced during the PM peak hour, that left-turning vehicles from the R44 towards Stellengate Boulevard, utilise the existing shoulder along the R44 as result of the left-turn lane being a shared lane with the through movement. To address this, it is suggested that the provision of a dedicated left-turn lane on the southern R44-approach be considered.

It can thus be concluded that to accommodate the background traffic at the R44/Stellengate Boulevard intersection, the provision of dedicated left-turn lanes on the northern and southern R44-approaches are considered necessary.

Stellengate Boulevard/Simonsberg Business Park Access intersection:

According to the Sidra analyses, acceptable service levels can be expected on all movements at this roundabout during the existing- and estimated AM and PM peak hours.

It can thus be concluded that, to accommodate the background traffic, no upgrades are considered necessary at the Stellengate Boulevard/Simonsberg Business Park Access intersection.

Stellengate Boulevard/Merchant Street intersection:

According to the Sidra analyses, acceptable service levels can be expected on all movements at this roundabout during the existing- and estimated AM and PM peak hours.

It can thus be concluded that, to accommodate the background traffic, no upgrades are considered necessary at the Stellengate Boulevard/Merchant Street intersection.

Groenfontein Road/Merchant Street intersection:

According to the Sidra analyses, acceptable service levels can be expected on all movements at this intersection during the existing- and estimated AM and PM peak hours.

It can thus be concluded that, to accommodate the background traffic, no upgrades are considered necessary at the Groenfontein Road/Merchant Street intersection.

3.5.2 Analyses of Expected Peak Hour Volumes (including proposed development)

The potential peak hour traffic generated by the proposed development (***Figure 3***) was added to the background traffic (***Figure 2***) to obtain the expected peak hour volumes (***Figure 4***).

Link Volumes:

As per ***Figure 4*** attached, the AM/PM link volumes anticipated along the R44 will be 2 431/2 193 north- and 1 839/1 557 south of the R44/Klapmuts-Simondium Road intersection. As mentioned with the background traffic volumes, the dualling of the section north will be required to accommodate the background traffic.

It can thus be concluded that no dualling of road sections, additional to those required to accommodate the background traffic, are considered necessary as result of the proposed development traffic.

R44/Stellengate Boulevard intersection:

With the addition of the potential traffic generated by the proposed development, it is expected that a dedicated left-turn lane will be required along the Stellengate Boulevard-approach. With the section of the R44 dualled and the dedicated turning lanes added as required to accommodate the background traffic, and with the addition of the left-turn lane along Stellengate Boulevard, acceptable service levels C and above can be expected on all movements during both expected peak hours, as per the Sidra analyses.

It can thus be concluded that a dedicated left-turn lane along the Stellengate Boulevard-approach to the R44/Stellengate Boulevard intersection is considered necessary to accommodate the addition of the proposed development traffic.

Stellengate Boulevard/Simonsberg Business Park Access intersection:

According to the Sidra analyses, the service levels as discussed with the analyses of the background traffic can be expected to remain, with marginal increase in queuing, with the addition of the proposed development traffic.

It can thus be concluded that no upgrades to the Stellengate Boulevard/Simonsberg Business Park Access intersection is considered necessary as result of the addition of the proposed development traffic.

Stellengate Boulevard/Merchant Street intersection:

According to the Sidra analyses, the service levels as discussed with the analyses of the background traffic can be expected to remain, with marginal increase in queuing, with the addition of the proposed development traffic.

It can thus be concluded that no upgrades to the Stellengate Boulevard/Merchant Street intersection is considered necessary as result of the addition of the proposed development traffic.

Groenfontein Road/Merchant Street intersection:

With the addition of the proposed development traffic, unacceptable service level F is expected on the southern Groenfontein Road-approach (stop-controlled). To address this, it is suggested that a roundabout be considered at this intersection. According to the Sidra analyses, acceptable service levels B and above can be expected on all approaches to the roundabout during both expected peak hours.

It can thus be concluded that a roundabout at the Groenfontein Road/Merchant Street intersection is considered required to accommodate the addition of the proposed development traffic.

Merchant Street/Access intersection:

The intersection of the proposed access to Merchant Street is suggested as a roundabout. A roundabout with single circulating lane at this intersection can be expected to operate acceptable during the expected peak hours.

It can thus be concluded that a roundabout at the Merchant Street/Access intersection is considered necessary to accommodate the addition of the proposed development traffic.

4. GEOMETRY

As previously mentioned, access to the subject property is proposed via an access road to Merchant Street. Merchant Street is accessed via Stellengate Boulevard, which intersects the R44 opposite the Klapmuts-Simondium Road. According to information, the R44 is classified as a Class 2-road, whilst Stellengate Boulevard and Merchant Street can be classified as Class 4-roads. The intention is that Stellengate Boulevard will be realigned towards the Groenfontein Road/Merchant Street intersection. See a schematic layout in ***Diagram 1*** below:

Diagram 1 : Existing and future road network in vicinity of subject property (solid lines existing roads, broken lines future road links)

It is proposed that a roundabout be constructed at the Merchant Street/Access intersection. The said roundabout will be situated ± 70 metres (centre-to-centre) from the closest T-intersection to the southwest, and ± 150 metres from the all-way stop-controlled Merchant Street/Adams Street intersection, which is considered acceptable.

An internal road is indicated on the attached layout which runs parallel to the future Klapmuts Hills Road. Access to the light industrial erven will be obtained via the said internal road. Accommodation for deliveries, etc., should be made on the individual erven. Detail on the on-site accommodation should be addressed with Site Development Plan submission.

Detail on refuse removal is not yet available. This should be addressed with Site Development Plan submission.

5. PARKING

Parking layouts are not yet available. Parking should be provided in line with the requirements of Stellenbosch Municipality. Parking will be addressed at Site Development Plan submission stage.

6. PUBLIC AND NON-MOTORISED TRANSPORT

6.1 Public Transport

A taxi rank was recently constructed north of the Groenfontein Road/Merchant Street intersection, which is situated less than 300 metres from the proposed access road intersection to Merchant Street.

Formal public transport embayments exist at the R44/Stellengate Boulevard intersection, as well as along Stellengate Boulevard, Merchant Street and Groenfontein Road.

To accommodate the proposed development, as well as the immediate surrounding area, it is suggested that the provision of public transport embayments be considered along the access road and/or at the accesses to the potential pockets within the proposed development.

6.2 Non-Motorised Transport (NMT)

Sidewalks exist along at least one side of the existing roads leading up to the proposed development access from the R44 (along both sides of some roads in the area). Pedestrian crossings also exist across Groenfontein Road and Merchant Street, as well as at the roundabouts and signalised intersections in the area.

The access road (between Merchant Street and Klapmuts Hills Road) will be constructed with 3,0 metre wide NMT facilities along both sides of the road.

As mentioned in *paragraph 4* above, detail regarding the internal roads will be addressed at Site Development Plan submission stage. It should be ensured that pedestrian accommodation along and across the internal roads are also addressed at that stage.

Based on the above, it is not considered necessary to provide additional external pedestrian facilities to accommodate the proposed development.

7. CONCLUSIONS

The following can be concluded from the report:

1) That this TIS accompanies the Application for Rezoning and Subdivision of Farm 744/2, situated to the west of the developed area of Klapmuts, which is situated to the west of the R44 and south of the N1, Stellenbosch;

2) That the proposed development is that of 76 925 m² GLA (90 500 m² light industrial bulk), with access obtained from Merchant Street;

3) That the proposed development has the potential to generate 461 peak hour trips (369 in, 92 out during the AM peak hour and vice versa during the PM peak hour);

4) That to accommodate the background traffic, the following upgrades are considered necessary:

   a) Dualling of the R44 north of its intersection with the Klapmuts-Simondium Road;

   b) R44/Stellengate Boulevard intersection: The provision of dedicated left-turn lanes on the northern and southern R44-approaches;

5) That to accommodate the proposed development traffic, the following upgrades are considered necessary:

   a) R44/Stellengate Boulevard intersection: Dedicated left-turn lane along the Stellengate Boulevard-approach;

   b) Groenfontein Road/Merchant Street intersection: Roundabout;

6) That detail on the internal road layouts, on-site accommodation of vehicles, refuse removal, parking, etc., be addressed with Site Development Plan submission;

7) That a taxi rank exists less than 300 metres from the proposed development, that formal public transport embayments exist in the area, and that it is suggested that the provision of public transport embayments be considered along the access road and/or at the accesses to the potential pockets within the proposed development; and

8) That sidewalks exist along at least one side of the existing roads leading up to the proposed development access from the R44 (along both sides of some roads in the area), and that pedestrian accommodation along and across the internal roads are provided.

8. RECOMMENDATIONS

From the above the following are recommended:

1) That to accommodate the **background traffic**:

   a) The R44 be dualled north of its intersection with the Klapmuts-Simondium Road intersection;

   b) Dedicated left-turn lanes be provided along the two R44-approaches to its intersection with the Klapmuts-Simondium Road intersection;

2) That to accommodate the **proposed development traffic**:

   a) A dedicated left-turn lane be provided along the Stellengate Boulevard-approach to its intersection with the R44/Klapmuts-Simondium Road;

   b) A roundabout be provided at the Groenfontein Road/Merchant Street intersection;

   c) A roundabout be provided at the access road intersection to Merchant Street;

3) That parking, access control/layout, internal roads and internal pedestrian accommodation be addressed at Site Development Plan stage.

In accordance with the *Road Master Planning: Klapmuts* of Stellenbosch Municipality's Development Charges Policy, upgrades to the roads listed in points 1) and 2) can be offset against Development Charges (DCs) payable. As per discussions with Stellenbosch Municipality, the cost of the access road between

Merchant Street and Klapmuts Hills Road forms part of the above and can also be offset against DCs.

We trust that the Traffic Impact Statement will be to your satisfaction and will gladly provide any additional information required on request.

Yours faithfully

Yolandi Obermeyer (B. Eng Civil)
iCE GROUP (STELLENBOSCH)

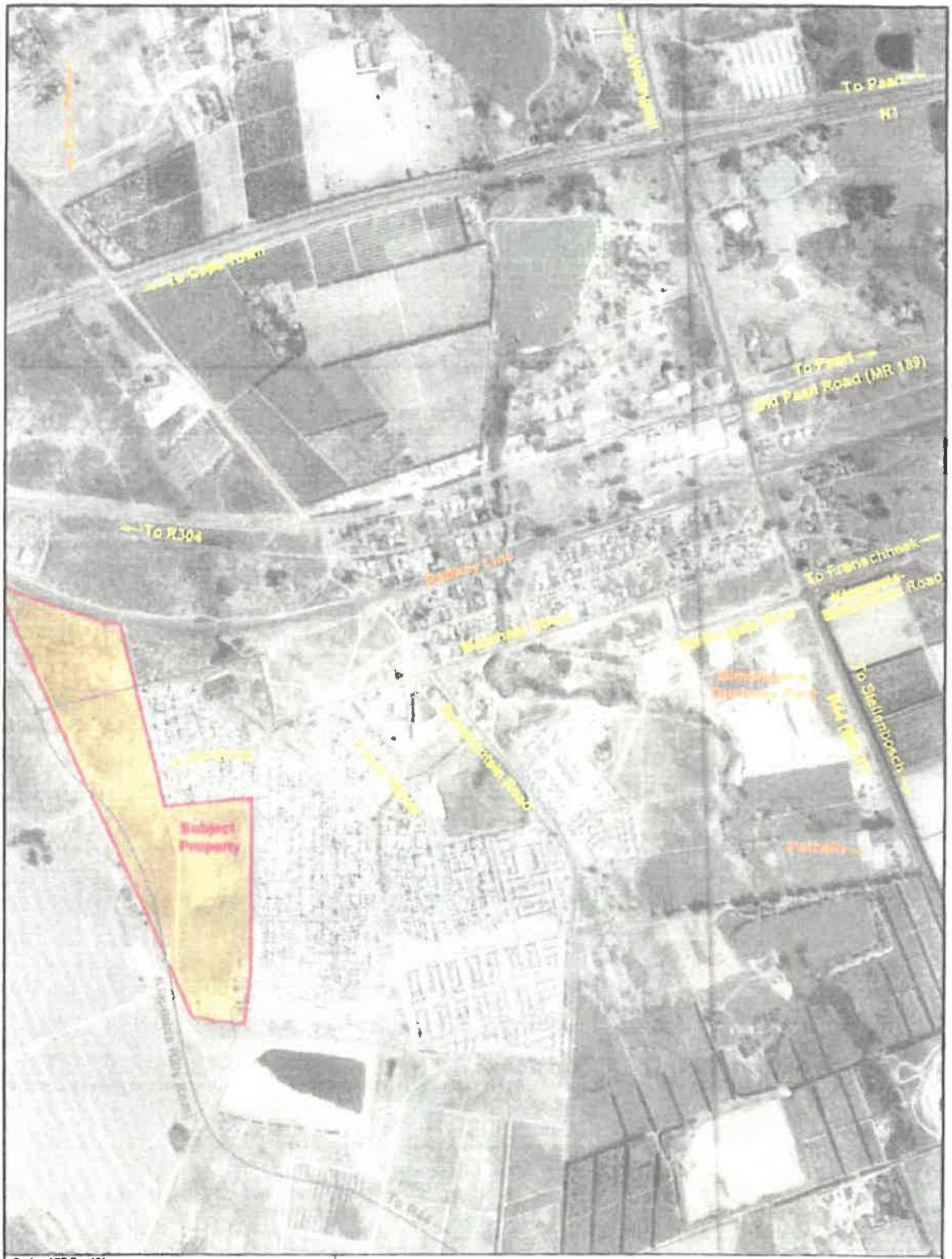
Piet van Blerk Pr. Eng
iCE GROUP (STELLENBOSCH)

Attachments

Locality Plan

Development Framework Plan (*Osmond Lange Architects and Planners (Pty) Ltd*)

Figure 1	Existing AM/PM Peak Hour Traffic Volumes (Tuesday, 14 May 2019)
Figure 2	Estimated 2024 AM/PM Peak Hour Traffic Volumes (including annual traffic growth and surrounding development)
Figure 3	Distribution of Traffic Generated by Proposed Development
Figure 4	Expected 2024 AM/PM Peak Hour Traffic Volumes (including annual traffic growth, surrounding development and proposed development)



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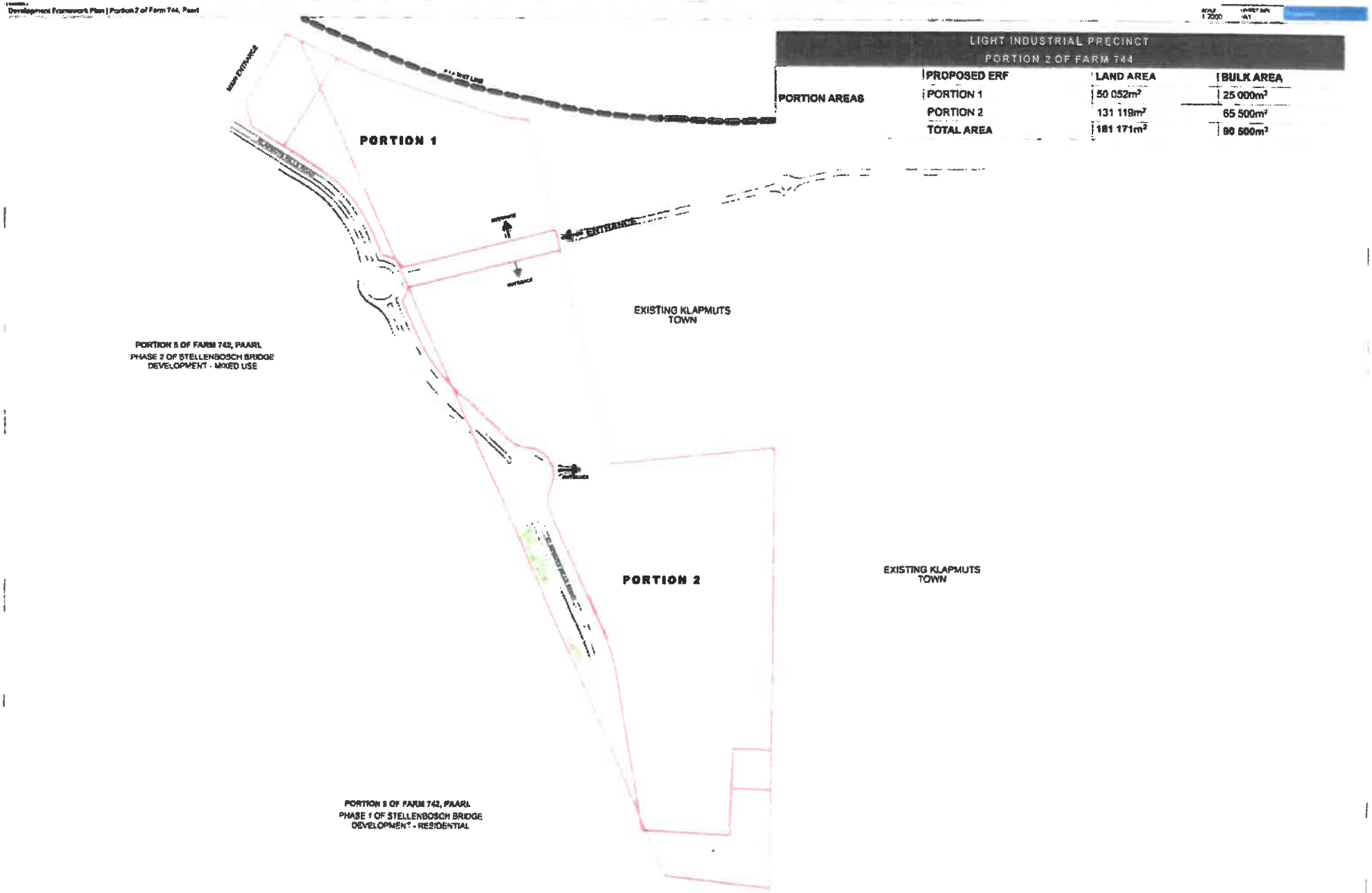
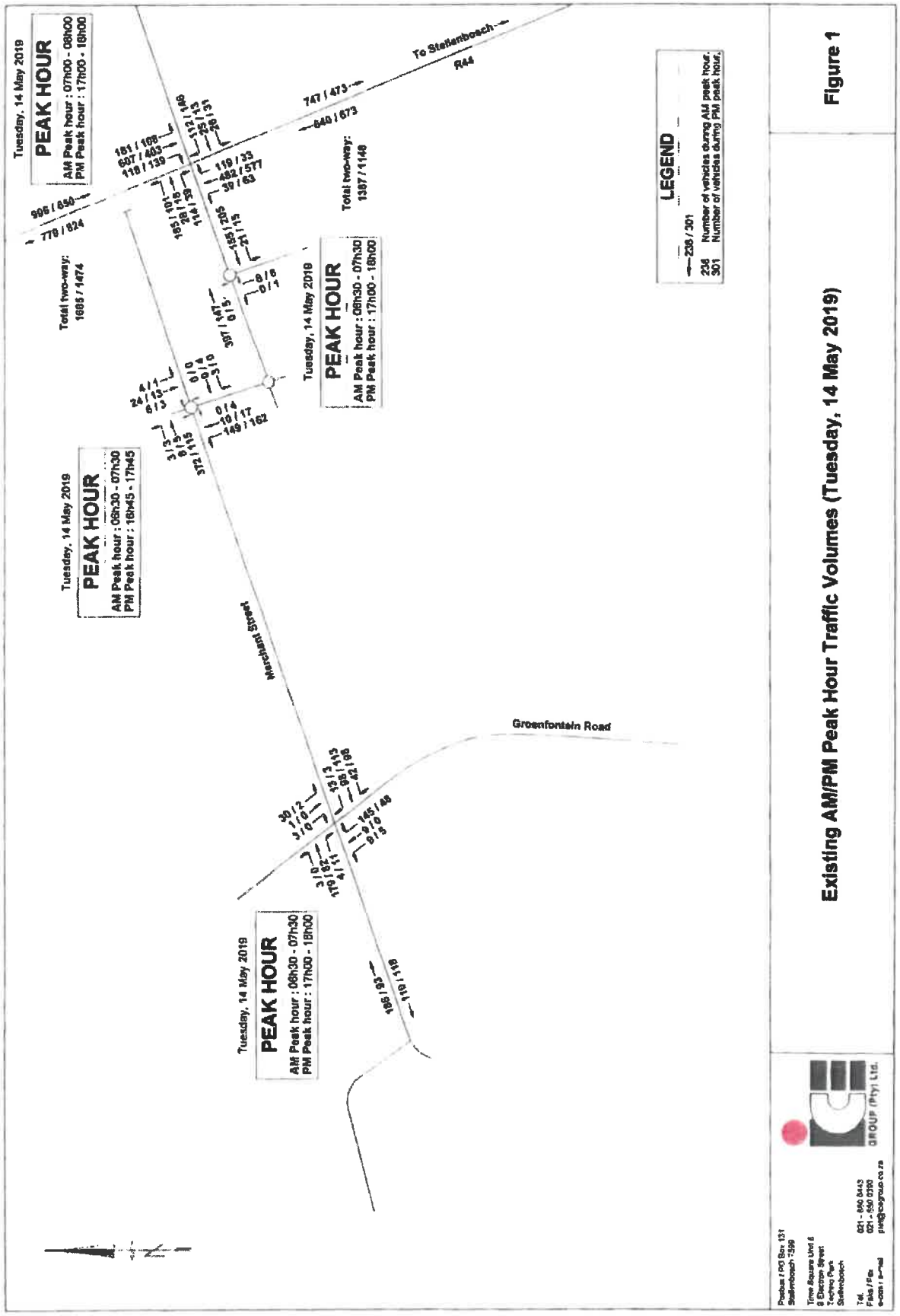
Locality Plan

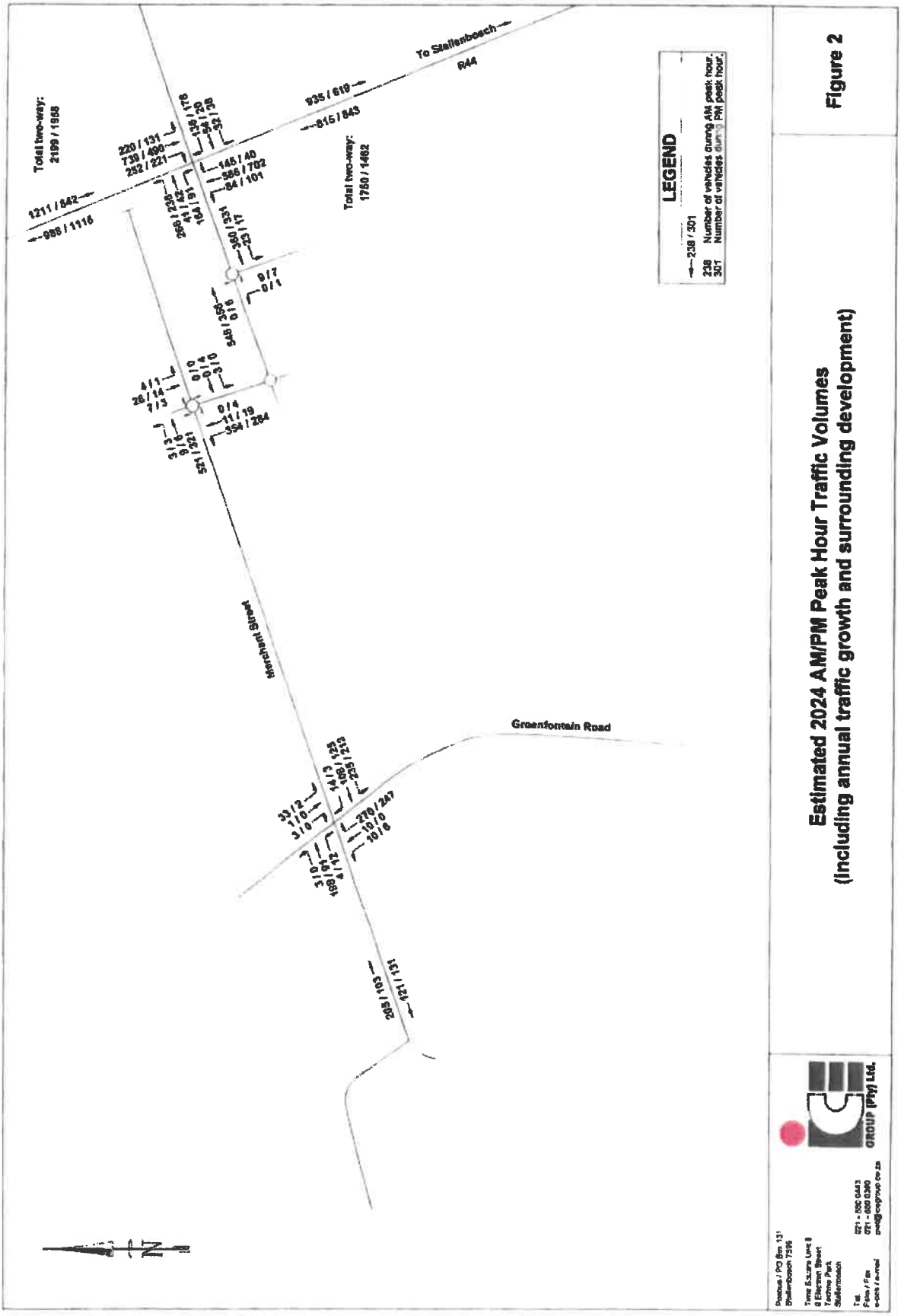
Development Framework Plan | Portion 2 of Farm 744, Paarl

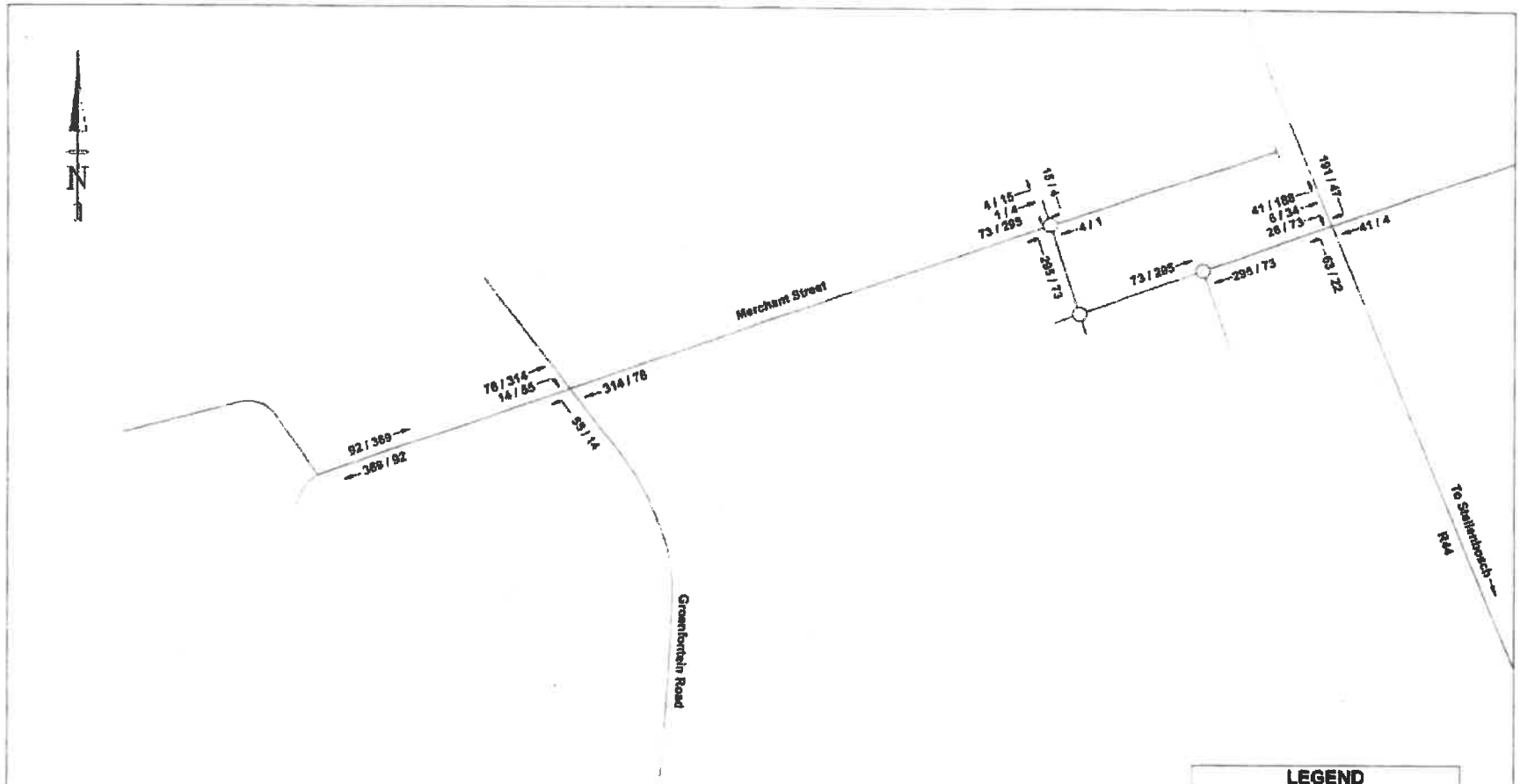


LIGHT INDUSTRIAL PRECINCT
PORTION 2 OF FARM 744

PORTION AREAS	PROPOSED ERF	LAND AREA	BULK AREA
	PORTION 1	50 052m²	25 000m²
	PORTION 2	131 119m²	65 500m²
	TOTAL AREA	181 171m²	90 500m²


Tuesday, 14 May 2019
PEAK HOUR
AM Peak hour : 07h00 - 08h00
PM Peak hour : 17h00 - 18h00
To Stellenbosch
R44
Total two-way:
1387 / 1148
Total two-way:
1695 / 1474
Tuesday, 14 May 2019
PEAK HOUR
AM Peak hour : 08h30 - 07h30
PM Peak hour : 17h00 - 18h00
Tuesday, 14 May 2019
PEAK HOUR
AM Peak hour : 08h30 - 07h30
PM Peak hour : 18h45 - 17h45
Tuesday, 14 May 2019
PEAK HOUR
AM Peak hour : 08h30 - 07h30
PM Peak hour : 17h00 - 18h00
Merchant Street
Groenfontein Road
LEGEND
236 / 301
236 Number of vehicles during AM peak hour.
301 Number of vehicles during PM peak hour.
Existing AM/PM Peak Hour Traffic Volumes (Tuesday, 14 May 2019)
Figure 1


To Stellenbosch
R44
Total two-way:
2199 / 1988
Total two-way:
1750 / 1462
1211 / 842
988 / 1116
935 / 619
815 / 843
Hershel Street
Groenfontein Road
LEGEND
238 / 301
238 Number of vehicles during AM peak hour.
301 Number of vehicles during PM peak hour.
Figure 2
Estimated 2024 AM/PM Peak Hour Traffic Volumes
(including annual traffic growth and surrounding development)



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Distribution of Traffic Generated by Proposed Development

Figure 3

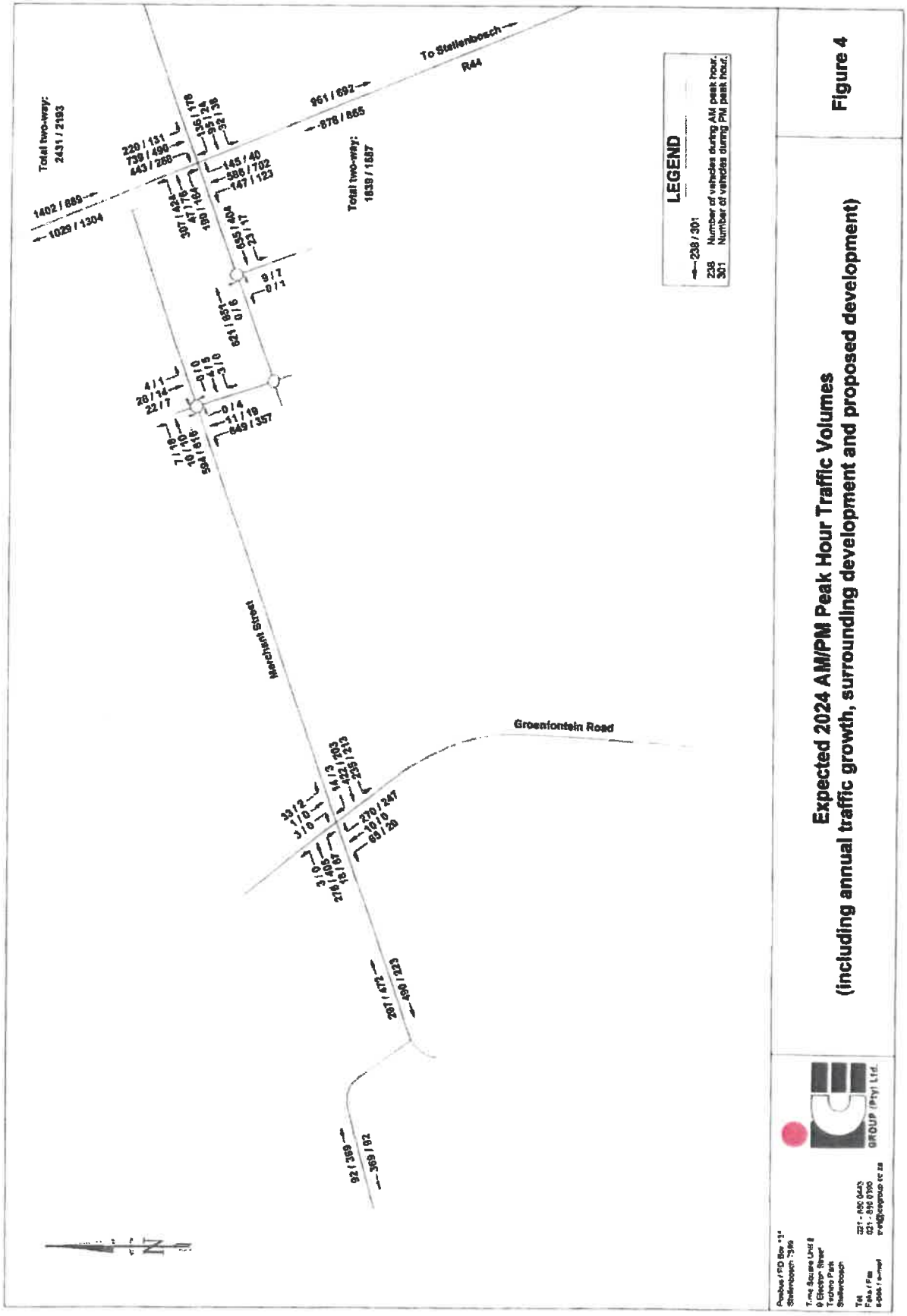

Figure 4

Expected 2024 AM/PM Peak Hour Traffic Volumes
(including annual traffic growth, surrounding development and proposed development)

STELLENBOSCH
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ANNEXURE P

VISUAL IMPACT ASSESSMENT

Proposed Stellenbosch Bridge Light Industrial Precinct Development

Portions 8/744, 2/744 and Rem/2/744, Klapmuts

Visual Impact Assessment

Draft Via Report

March 2020

Prepared for:

Legacy Environmental Management Consulting

PO Box 12410, Die Boord,
Stellenbosch, 7613

Prepared by:

Megan Anderson Landscape Architect

33 Hoop Street, Bredasdorp, 7280

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1. EXECUTIVE SUMMARY

Megan Anderson Landscape Architects was appointed to undertake a Visual Impact Assessment for the Stellenbosch Bridge Light Industrial Development, west of Klapmuts.

The proposed development falls within the planning vision for Klapmuts of Stellenbosch Municipalities 2019 SDF. The proposed Urban Planning, Architectural and Landscape Architectural principles, guidelines, controls and concepts generally comply with the municipalities 'Visual, Scenic Resource and Sense of Place' requirements.

The **scenic resources** of the area can be described as natural, rural and peri-urban and are rated as **HIGH.**

The **Zone of Visual Influence** of the proposed development is **LOCAL**, limited to the Upper Klapmuts River valley area, between 500m's to 2kms.

Receptors are **HIGHLY, MODERATELY and MINIMALLY sensitive.** The highly sensitive receptors are the surrounding homesteads, Nature Reserves, secondary scenic drives (R301, R44 and N1) and residents of Bennetsville.

The **Visual Absorption Capacity** of the site to the proposed development is **MODERATE**, i.e. there will be **partial screening** by topography and vegetation.

The **Visual Intrusion** will be **MODERATE to LOW,** as it partially fits into the surroundings of the existing Klapmuts settlement to the east but will be clearly noticeable to the surrounding rural areas.

The expected **Visual Impacts** are tabled below including significance before and after mitigation:

	Significance before mitigation	Significance after mitigation
A. Visibility Of Construction Activity Including Clearing Of Building Sites For Construction		
	High	Medium
b. Change in Visual Character from natural and rural to Light industrial with 10m high buildings		
	High	Medium
C. Visibility From Sensitive Receptors		
	Medium - High	Medium
D. Visual Intrusion Of Night Lighting		
	High	Medium
e. Cumulative Impact		
	Medium	Medium

Mitigation Measures Include:

- Enforcing the proposed Architectural and Landscape Architectural Principles, Codes, Guidelines and Concepts provided by OL Architects and Square One Landscape Architects
- Comprehensive planning regarding lighting in order to minimise light pollution on the cultural and rural landscape
- Construction mitigation measures to be included in the EMP
- Production of an Operational Management Plan to guide and control the Stellenbosch Bridge Light Industrial Development including buildings, infrastructure and landscaping in the future

It is recommended that the following are included as Conditions of Approval of the revised Record of Decision from DEA&DP:

- The proposed Urban Design, Architectural and Landscape Architectural design principles and guidelines be implemented across the proposed development;
- The required mitigation measures regarding Lighting and Signage are planned and designed for and implemented;
- An Operation Management Plan for Buildings, Infrastructure and Landscaping is produced by the Project Consultants which will prescribe maintenance requirements in order to

retain buildings and infrastructure in good condition and provide for the ongoing establishment of the landscape.

- The Construction Mitigation Measures are included in the EMP.

We are of the opinion that if these recommendations and mitigation measures are enforced, that the proposed development will have a moderate visual impact and, in time, with the maturing of trees that should be planted, the development will not detract negatively from the highly rated Cape Winelands scene.

2. NAME, EXPERTISE AND DECLARATION

2.1. Name

Megan Anderson, Of Megan Anderson Landscape Architects, Is A Self-Employed Landscape Architect Who Has Been Consulting In The Western Cape Since 1991, To Clients From The Public And Private Sector.

2.2. Expertise

Megan Anderson's Projects Range From:

- visual impact assessments (VIAs) of proposed developments for EIA and HIA processes;
- environmental and landscape policy and planning;
- upgrading and rehabilitation of natural systems;
- planning and implementation in heritage and cultural precincts; and
- planning, design and landscape development in residential and urban areas and community projects.

Principal Agent:	Megan Anderson (Prlarch)	Registered Professional Landscape Architect Blarch (Up) 1983 Milasa

Registration Of Principle Agent

1994	South African Council For Landscape Architect Professionals (94063)
1992	Institute Of Landscape Architects Of South Africa (P217)

Qualifications

1983	University Of Pretoria	Bachelor Of Landscape Architecture

Visual Impact Assessment Expertise

Megan Anderson has been doing Visual Impact Assessments (VIA's)since 1989 when working for OvP and BOLA. Since then, she has completed more than 100 VIA's for a variety of developments including mining, harbours, wind and solar farms, communication towers, commercial and residential developments. A list of selected projects can be found in Appendix 1.

2.3. Declaration of independence

DECLARATION OF INDEPENDENCE

I, Megan Anderson, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed Stellenbosch Bridge Project at Klapmuts (in the Stellenbosch Municipality of the Winelands District of the Western Cape), application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.

Megan Anderson
Megan Anderson Landscape Architects
Professional Registration Number: Saclap - 94063

3. INTRODUCTION

Legacy Environmental Management Consulting is preparing a Basic Assessment Report (BAR) for this Light Industrial Development and have requested Megan Anderson Landscape Architects (MALA) to provide a Visual Impact Assessment report for the proposed Light Industrial Development on Farm Portions 8/744, 2/744 and Rem/2/744.

3.1. Background to the Report

Stellenbosch Bridge Properties Pty Ltd propose to develop a phased Mixed Use Development to the west of Klapmuts.

Phase 1 is for an area of Light Industrial Development on portions 8/744, 2/744 and Rem/2/744. These properties are immediately adjacent to existing development in Klapmuts.

3.2. Scope of Study

The scope of work of this specialist study is to assess the visual implications of the proposed Light Industrial Development.

The Following Will Be Covered In This Report:

- Identification of issues raised during a site visit;
- Description of the receiving environment and the proposed project;
- Establishment of view catchment area, view corridors, viewpoints and receptors;
- Indication of potential visual impacts using established criteria;
- Inclusion of potential lighting impacts at night;
- Description of alternatives, mitigation measures and monitoring programmes.

3.3. Assumptions and Limitations

The visual impact report is based on the following information:

- The proposed Information provided by the Client, Planners, Architects and Landscape Architects

The desktop component of the visual study relies on a combination of 1:250 000 and 1:50 000 Topo-cadastral and Geological maps. The Western Cape Department of Agricultures Aerial Photographs have also been used. While the latest versions of these plans are being used, the information captured on these diagrams is outdated in some areas.

For the purposed of this report, the No-Go Alternative assumes that the proposed landuse depicted in the Stellenbosch Municipality SDF 2019 (Illustrated in Figure 1 in this report) is what will be implemented. This is Mixed Used development on the western part of the site, Open Space in the north east and Local Economic Diversification in the south east.

4. METHODOLOGY

A recent site visit and a photographic survey of the site and surrounds were undertaken in August 2019. Photographs were taken using a Canon EOS 1100D camera body with an EFS 18-55 mm lens.

A desktop study was undertaken to review policy literature and map the scenic resources (Geological Series), view catchment, zone of visual influence, viewpoints and receptors (Topographical maps 1:250 000 and 1: 50 000). Desktop mapping was verified by on-site fieldwork.

An evaluation was made of potential visual impacts using standard visual criteria such as extent of visibility, visual sensitivity of the receptor's, visual absorption capacity of the area and visual intrusion on the character of the area.

Recommendations are made with regards mitigation measures.

5. STATUS OF THE STUDY AREA

This report covers the proposed development namely the Light Industrial Development on portions 8/744, 2/744 and Rem/2/744, Klapmuts.

A number of Spatial Development Frameworks (SDF) namely the Western Cape Provincial SDF (2014) and the Stellenbosch Municipality SDF (2018/2019) are of reference to this proposed site of development with a common theme prevailing, namely:

- Developing Integrated and Sustainable Settlements and preventing settlement encroachment into agricultural areas, Scenic Landscapes and Biodiversity Priority Areas
- Safegaurding Cultural and Scenic Assests
- Safegaurding water, agricultural and mineral resources

All recognise the importance of the Scenic and Cultural Landscape and Sustainable development and propose the protection thereof and management of development therein such that the existing values are not lost.

The Stellenbosch Municipalities 2018/2019 SDF proposed the use of these sites for Local Economic Diversification, Mixed Use and Open Space. See Plan below. Parts of the R301 and R44 are indicated as Sensitive Scenic Routes. These sections are not adjacent to the Site.

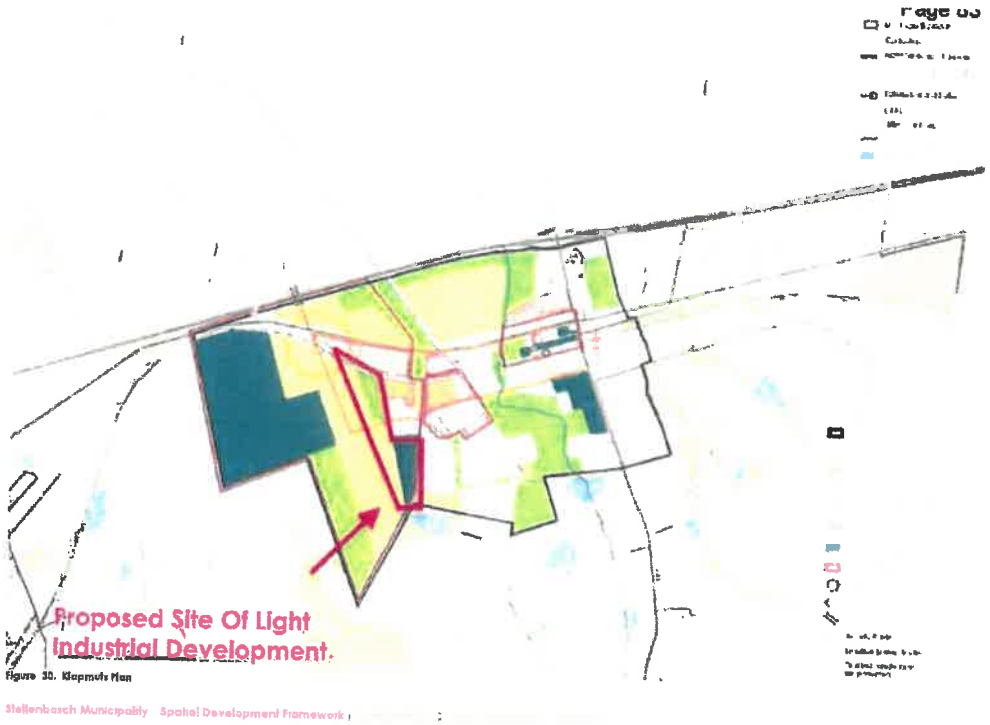


Figure 1: Stellenbosch Municipality Spatial Development Framework

Further applicable policies are the Heritage and Scenic Resources Inventory and Policy Framework for the Western Cape (2013) and the Phase 2a Report: Preliminary Draft Heritage Inventory of Large-Scale Landscape Areas in the Rural Domain of the Stellenbosch Municipality informing Proposed Heritage Areas, REVISED, 26th January 2017

5.1. Heritage and Scenic Resources, Inventory and Policy Framework for the Western Cape (Oberholzer and Winter, 2013)

The proposed site of development is characterised by the Cape Winelands scenic resources described by the Oberholzer and Winter study (2013) as follows:

2.5 The Cape Winelands

The Cape Winelands is an area of fertile valleys nestled between the Cape Fold Mountains with their rugged sandstone peaks. It is an area high in scenic and heritage significance, its famous vineyards earmarked for declaration as a World Heritage Site.

At the base of the sandstone massifs, the steep scree slopes grade into gently rolling foothills of weathered Cape granites and Malmesbury shales, which have been incised by rivers to form wide alluvial valleys in places, such as those of the Berg and Breede Rivers. Interestingly the pattern of vineyards has a strong correlation with the occurrence of the granites, the unique combination of soil and climate having made this the centre of viticulture and fruit farming.

Towns, villages and farmsteads are strung along the valleys in response to the topography, sources of water and productive agricultural soils, Stellenbosch and Paarl being two of the oldest colonial settlements. Other towns in the District with 'Heritage Areas' include Franschhhoek, Wellington, Montagu, Worcester, McGregor and Tulbagh.

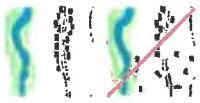
The combination of mountain scenery, rural landscapes, colonial architecture and wine routes make this area a prime tourism destination of critical importance to the economy of the region. The area is however also under great threat of fragmentation through creeping urbanization.

The rugged terrain and tapestry of rural landscapes have given rise a network of scenic routes and mountain passes, many of which began as wagon routes to the interior. Passes such as Bainskloof Pass (a Provincial Heritage Site), Franschhoek Pass, Mitchell's Pass and Cogmanskloof, to name a few, are a legacy from the 1700s and 1800s by road-builders such as Andrew Bain.

The Report Identifies Threats To The Cape Winelands And Provides Policies And Guidelines For Development

RURAL LANDSCAPES	POLICY	GUIDELINES
Rural settlement patterns	R.4 Maintain the natural ordering system of town, village, hamlet and farmstead evolved in response to the natural environment and movement routes. 	• Ensure that new development is responsive to the historical rural context, and avoid suburban type layouts, particularly "gated" estates, in rural areas. • Ensure that new developments within rural contexts are in sympathy with the topography, drainage patterns and microclimate. • Observe the siting of traditional farmsteads, usually nestled into north-facing hillslopes, near a source of water, in a copse of trees, overlooking the lands. They avoided visually-exposed, wind-swept hillcrests, and frost-prone valley bottoms. • Ensure that new buildings within historical precinct or werf' contexts are in sympathy with the scale, massing, layout and idiom of surrounding buildings.
Cultural features	R.5 Respect cultural features of significance.	• Ensure that new development responds positively to special cultural features (e.g. farmsteads) by providing them with 'breathing space', respecting their settings and leaving public views uncluttered and unobtrusive.
Planting patterns	R.6 Conserve traditional patterns of planting in cultural landscapes of significance. 	• Ensure that windbreaks, avenues, copses and place-defining or gateway planting is not needlessly destroyed by new development. • Reinforce or replace traditional patterns of planting where appropriate with suitable species.
Socio-historical places and patterns of access	R.7 Maintain traditional movement patterns across rural landscapes or to places of socio-historical value.	• Avoid privatization or creation of barriers to traditional access routes. • Retain old roadways, which have been replaced by newer roads, for use as recreation trails.
Protected Landscapes	R.8 Protect landscapes of cultural significance by means of legislation, zoning and/or guidelines.	• Use the provisions of the NHRA (for National or Provincial Heritage Sites and Heritage Areas), or through zoning schemes (Heritage Overlay Zones), e.g. Idas Valley PHS and Dwars River Valley Heritage Overlay Zone.

5.2 Policies and Guidelines for Rural Landscapes of Significance

RURAL LANDSCAPES	POLICY	GUIDELINES
Natural visual setting	R.1 Conserve the green or topographical 'containers' of rural landscapes and settlements.	• Prevent encroachment of development where these erode distinctive visual settings.
Dominance of rural landscapes	R.2 Create compact rural settlements with well-defined urban edges. 	• Prevent urban sprawl in rural landscapes by clustering new development into distinct, compact footprints related to existing movement routes, embedded within zones of agricultural dominance as opposed to creating continuous swathes of development. • Give preference to the densification/reinforcement of existing settlements and settlement patterns rather than extending development outside the urban edge in an unstructured random manner. • Ensure that new subdivisions respond appropriately to the historical context and pattern of settlement. • Avoid the decentralisation of retail and office centres which contribute to urban sprawl. • Avoid large-scale infrastructure such as wind farms, solar energy facilities and transmission lines in natural and cultural landscapes of high significance.
Productive agricultural landscapes	R.3 Consolidate and retain productive agricultural areas as viable units. 	• Avoid development on good agricultural soils, which are essential to maintaining productive landscape qualities. • Prevent piecemeal subdivisions and the fragmentation of farmland into unviable units or 'agricultural islands' resulting in farming activities becoming 'incompatible' with surrounding urban or suburban uses. • Prevent the gentrification of productive or working farmland as ornamental green space, as in the case of 'lifestyle rural estates'. • Consider restrictive zoning or overlay zones in historic farming areas, such as the Breede River and Berg River valleys, to conserve the scenic and heritage value of these agricultural valleys.

5.2. Phase 2a Report: Preliminary Draft Heritage Inventory of Large-Scale Landscape Areas in the Rural Domain of the Stellenbosch Municipality informing Proposed Heritage Areas, REVISED, 26th January 2017

This report identifies significant large-scale heritage resources in the rural domain of the Stellenbosch Municipality.

This Report Identifies Klapmuts As Being A Gateway Precinct And Being A Heritage Ares Of Medium Significance.

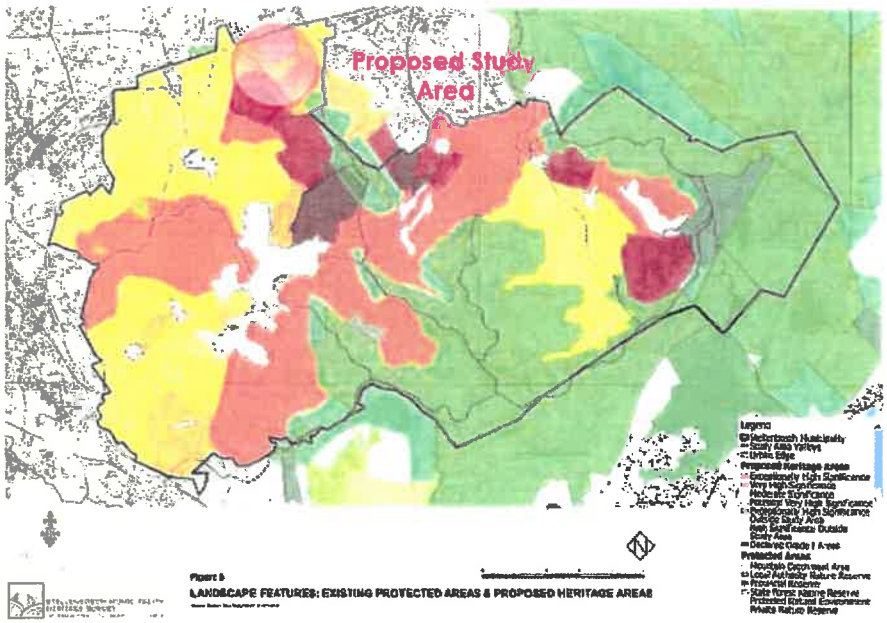


Figure 2: Stellenbosch Municipality Heritage Inventory, large scale landscape areas in the rural domain (source: Preliminary Draft Heritage Inventory of Large-Scale Landscape Areas in the Rural Domain of the Stellenbosch Municipality)

6. THE PROPOSED DEVELOPMENT

6.1. Site Location

The proposed Light Industrial Development is within the Stellenbosch Municipal Area of the Winelands District of the Western Cape.

The development will be on Portions 8/744, 2/744 and Rem/2/744 of Farm 244, Paarl Division.

These properties are immediately west of and adjacent to existing development in Klapmuts.

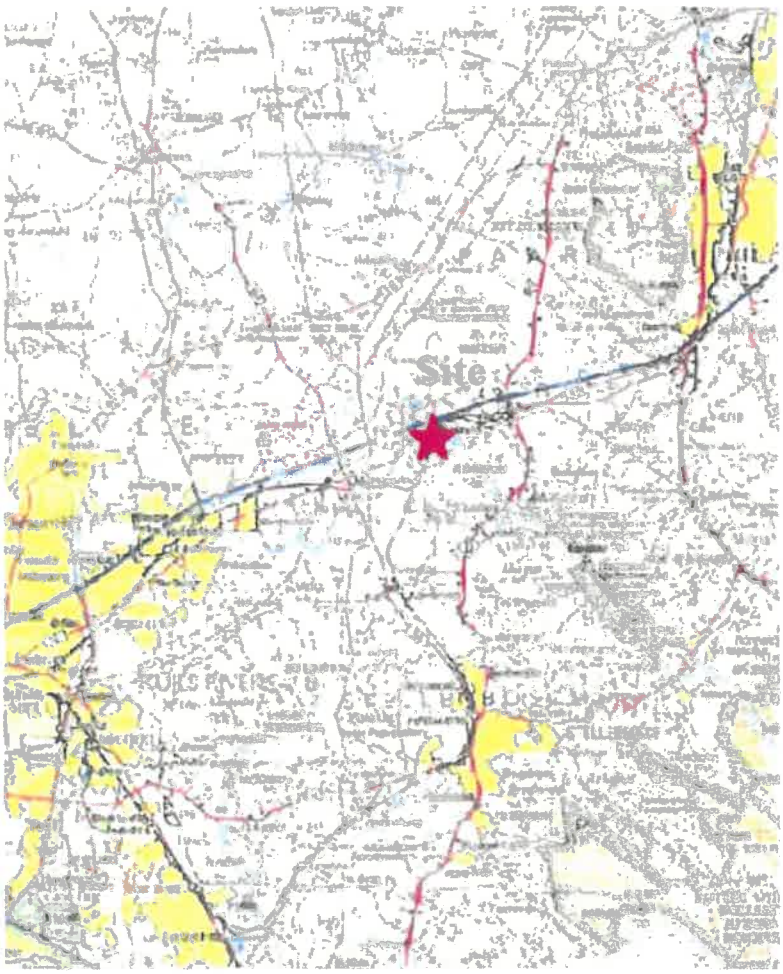


Figure 3: The site of proposed development indicated on a 1:250 000 topographical map (note that this map is outdated but latest available)

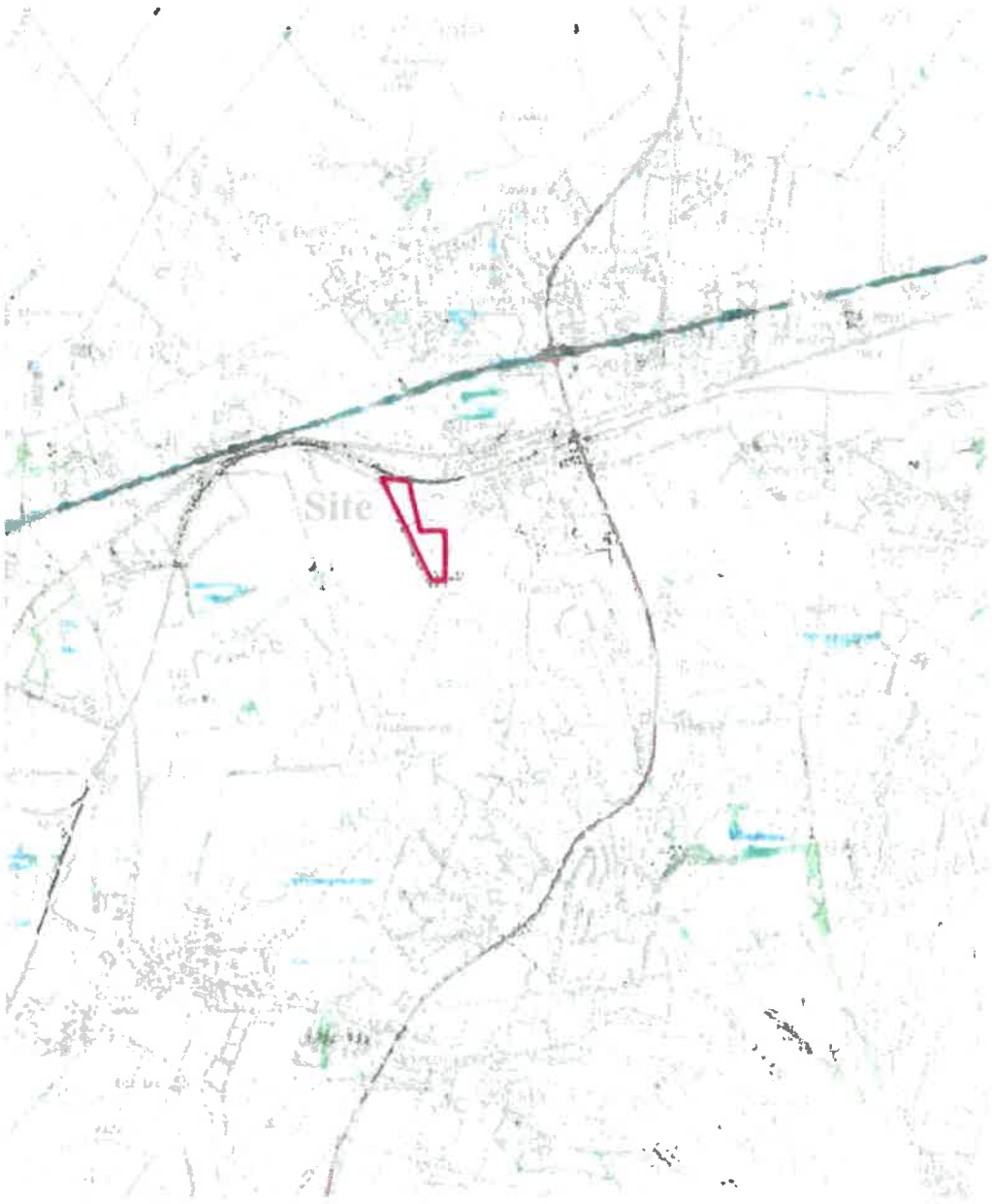


Figure 4: Location Of The Proposed Site Of Development Indicated On A 1:50 000 Topographical Map

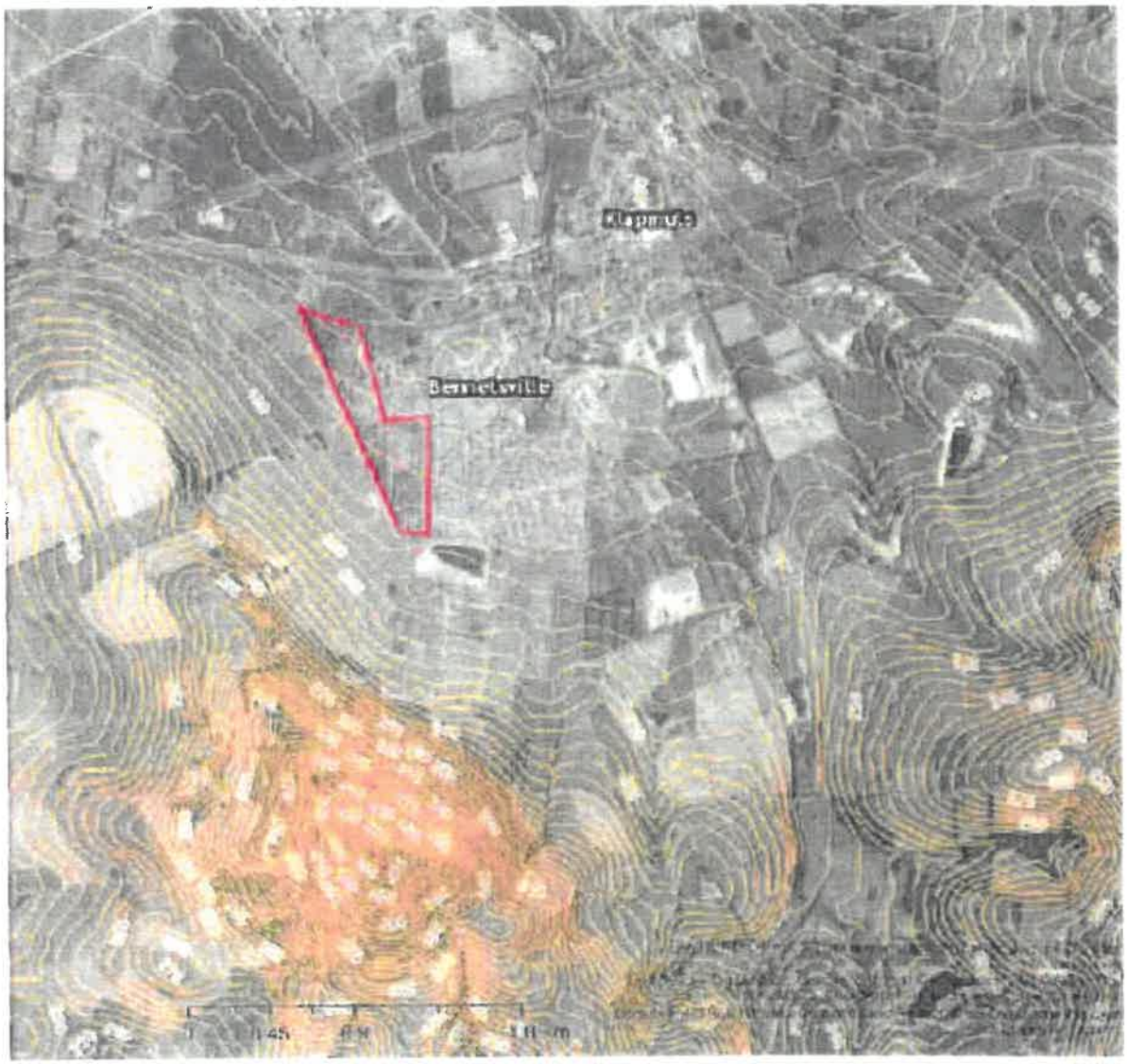


Figure 5: The site of proposed development indicated on an aerial photograph indicating surrounding development and farming (source: Cape Farm Mapper)

The site is in the Klapmuts River valley, at the foothills of the Klapmutskop Mountain.

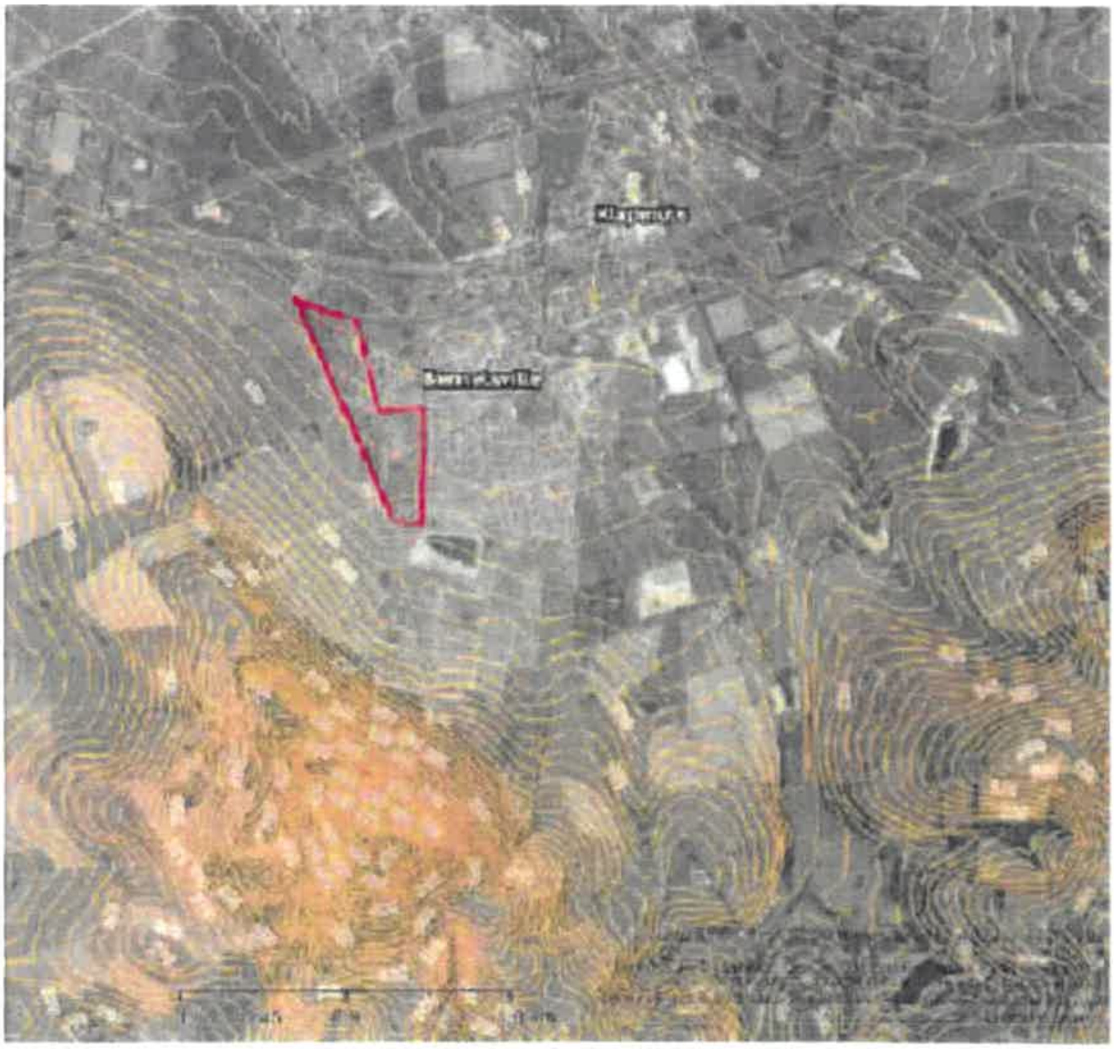


Figure 5: The site of proposed development indicated on an aerial photograph indicating surrounding development and farming (source: Cape Farm Mapper)

The site is in the Klapmuts River valley, at the foothills of the Klapmutskop Mountain.

6.2. Development Description

6.2.1. Preferred Alternative - Light Industrial Development

Stellenbosch Bridge (SB) is currently made up of six distinct precincts:

- Innovation Precinct: mixed use (office/commercial/residential/retail/ hotels/ entertainment/educational/ transport)
- Light Industrial/Data Centres/ Commercial
- High Density Residential
- Low Density Residential
- Educational/ School Precinct
- Future Innovation Precinct Extension

The Light Industrial Precincts are located on the eastern and northern perimeters on the development. The industrial precinct on the eastern edge will form part of the first phase of the development and act as a buffer zone between the new Stellenbosch Bridge Development and the existing Klapmuts Town.

The subject of this report is the Light Industrial Precinct on the eastern perimeter of Stellenbosch Bridge, east of the proposed Stellenbosch Boulevard, a 35m wide transport corridor (excluded from this report). See Figure 6 below.

The current proposal is for a Light Industrial Development and will include:

- Gateways and access roads to erven;
- Erven for Light Industrial Development that includes areas for office buildings, Light Industrial Buildings and vehicular areas (access, turning and parking);
- Parking areas along access roads with soft landscaping;
- Open, landscaped spaces between erven; and
- A green buffer area along the eastern boundary between the Light Industrial Area and the existing development to the east.

Figure 6: Proposed Light Industrial development of Stellenbosch Bridge (source: OL Architects)

The Architectural and Landscaping Guideline Documents have been provided which provide insight into the proposed development. These can be found in Appendices 3 and 4.

These guidelines allow for the following:

- Edge conditions with regards the location of Industrial Buildings adjacent to the Boulevard (see Figure 7 below)

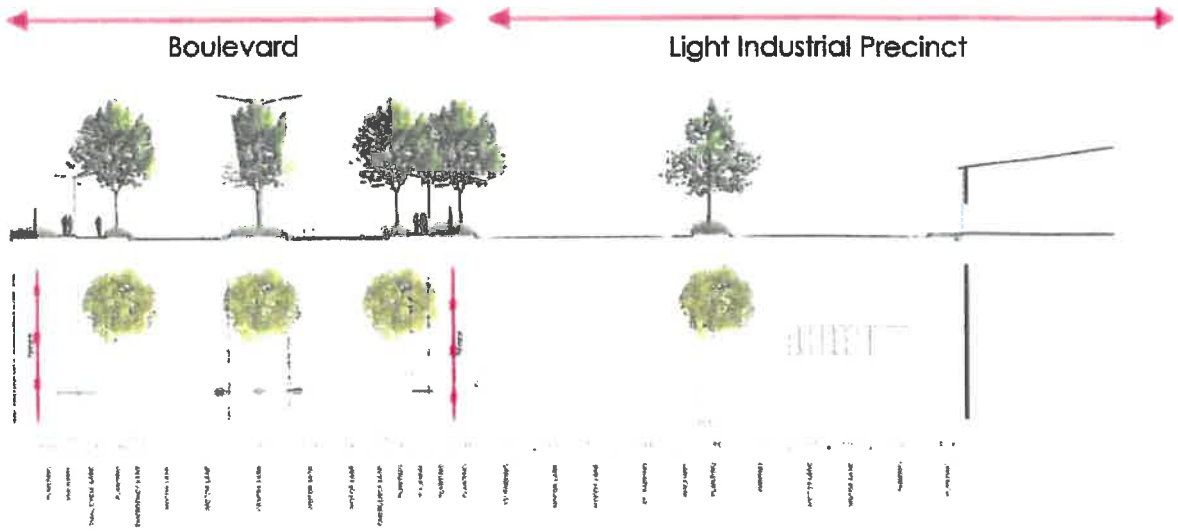


Figure 7: Proposed Light Industrial development of Stellenbosch Bridge (source: OL Architects)

- Architectural codes and guidelines - the industrial buildings are conceptualized as having two components, a street-facing office block defining the entrance and public facade, and an industrial structure

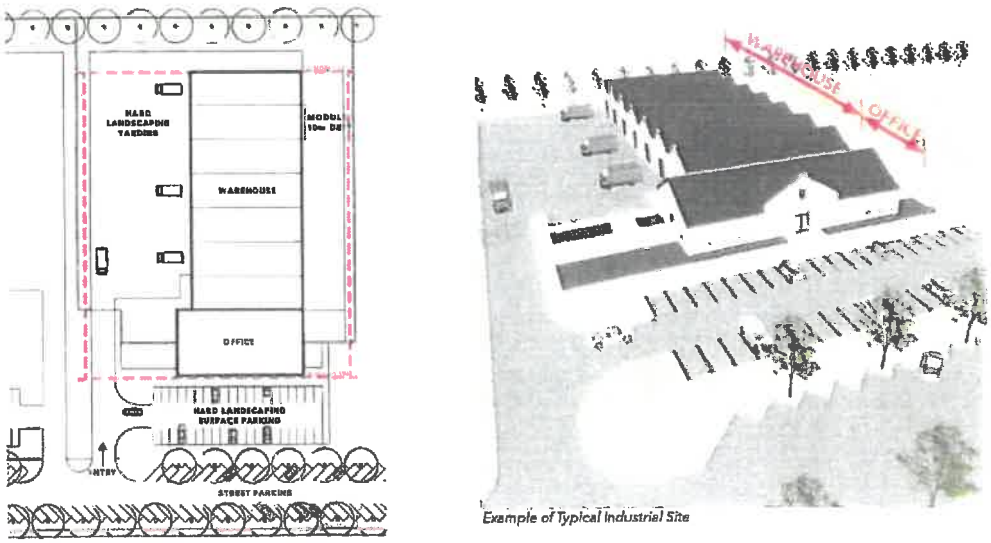


Figure 8: Plan and example of Typical Light Industrial Site

- Architectural style and elements in order to establish a timeless and collective architectural identity, by adopting and using the traditional elements derived from

regional Cape architecture, such as the proportions, simplicity, scale, massing, traditional plan form, vertical proportions, human scale, detailing and colours, in a unique and cohesive manner to achieve an attractive homogenous architectural language. Focal features (fountains, traditional Cape chimneys, low Cape walls, pergolas, verandas in conjunction with indigenous planting and trees) will enhance and complement the character and promote a qualitative development known for its charm, beauty and ultimately its own unique "sense of place".

- The following elements are addressed:
  - Materials and Quality of Work;
  - Colours and Textures;
  - Architectural Codes: Elements of the Building;
  - General Design Guidelines and Restrictions.

7. VISUAL ASSESSMENT OF THE SITE AND PROPOSED DEVELOPMENT

7.1. Description of the Affected Area and the Scenic Resources

Description of the affected area and its scenic resources (see Photoplates 1 - 4 below)
The proposed site of development is situated in the upper reaches of the Klapmuts River Valley, on the low lying, flat alluvial plains, at the toe of Klapmutskop.

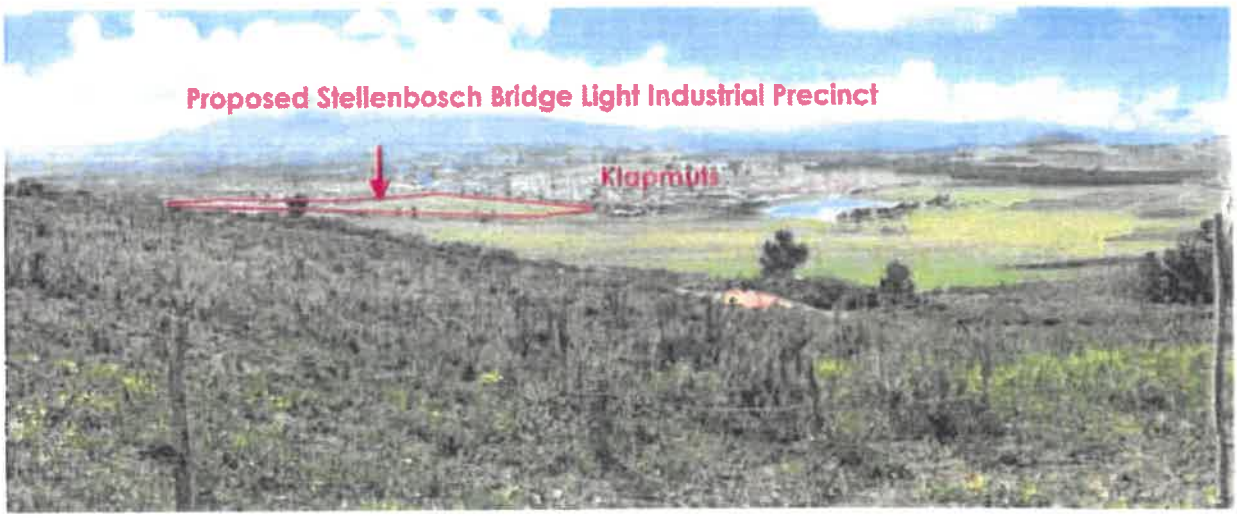


Photo Plate 1 - The Light Industrial Precinct seen from the slopes of Klapmuts Kop with the settlement of Klapmuts beyond.

The Klapmuts River valley and the proposed site are surrounded by higher mountains in the west and south, namely Klapmutskop, Skurweberg and Simonsberg respectively. Low, rounded hills further enclose the valley to the north and east - Wolfieskop in the north and Klein Simonsberg in the east. Paarl Mountain is visible to the north east, beyond the low hills.

The Klapmuts valley plains are comprised of quaternary soils typical of valley bottoms and are flat to gently sloping. The pond just west of the site adds scenic resource value to the site.

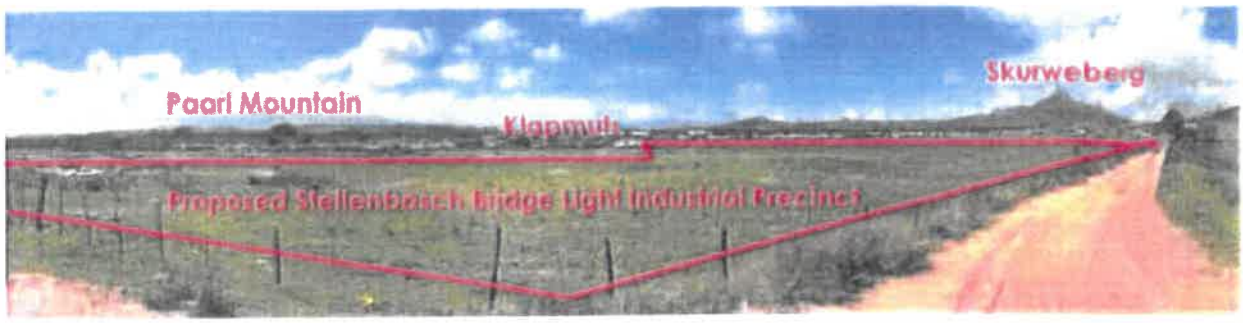


Photo Plate 2 - The low lying, flat site of the proposed Light Industrial Precinct with Klapmuts beyond and Paarl Mountain beyond that

Immediately east of the proposed Light Industrial Precinct is the settlement of Klapmuts, which is comprised of Bennetsville, a low income residential area and further east more light industries and commercial development. To the south and west the area is currently predominantly rural while to the north, transport corridors comprised of the railway line between Paarl and Stellenbosch/Cape Town, the Old Paarl Road (R101) and the N2 highway border the site. Beyond and between the transport corridors is more rural development.

To the west, the slopes of Klapmutskop, show the remnants of once cultivated lands with gravel tracks and rows of Eucalyptus trees defining farm blocks.

Photo Plate 3 - Once cultivated hill slopes of Klapmutskop looking east towards Klapmuts (lhs), Paarl Mountain beyond

Some cultivation is visible to the south west as is a large reservoir. The ridge line and upper slopes towards Klapmutskop are still naturally vegetated.

Photo Plate 4 - Once cultivated hill slopes of Klapmutskop looking west towards Klapmutskop (rhs), the proposed Light Industrial Site is behind the photographer

Klapmutskop and the settlement of Klapmuts is a "gateway" to the Cape inland mountain range and to the three famous valleys of Paarl, Franschhoek and Stellenbosch, all characterized by natural and cultural landscapes of exceptional beauty.

The naturally vegetated surrounding Klapmutskop and Skurweberg mountains with their vineyard covered hill slopes and tree lined roads and fields, still dominate the scenery surrounding the settlement of Klapmuts. The settlement of Klapmuts is nestled in the Klapmuts River valley, with a few remarkable wild Fig trees and old buildings on the corners of the R44 and Old Paarl Road (Church) and Simondium Road (Red shop). The Proposed site of development for the Light Industrial Precinct is adjacent to the high density, low cost housing area on a low lying, flat and open piece of ground covered with low grass.

The ***scenic resources*** of the area can be described as **natural, rural and peri-urban** and are rated ***High.***

7.2. Visibility of the proposed development

7.2.1. View Catchment

The geographical area from which the project will theoretically be visible, known as the view catchment area, is dictated primarily by topography.

The proposed development is situated on a low lying valley plain at the toe of the Klapmutskop mountain.

The viewshed is defined by the higher lying hills and mountains that form the catchment line of the Klapmuts River, and are between 7 km's to Joostenberg in the north west, 3 - 7km's to Klapmutskop and Kanonkop respectively to the south and south east and 4 - 9km's to Wolfieskop and Paarlberg in the north and north east.

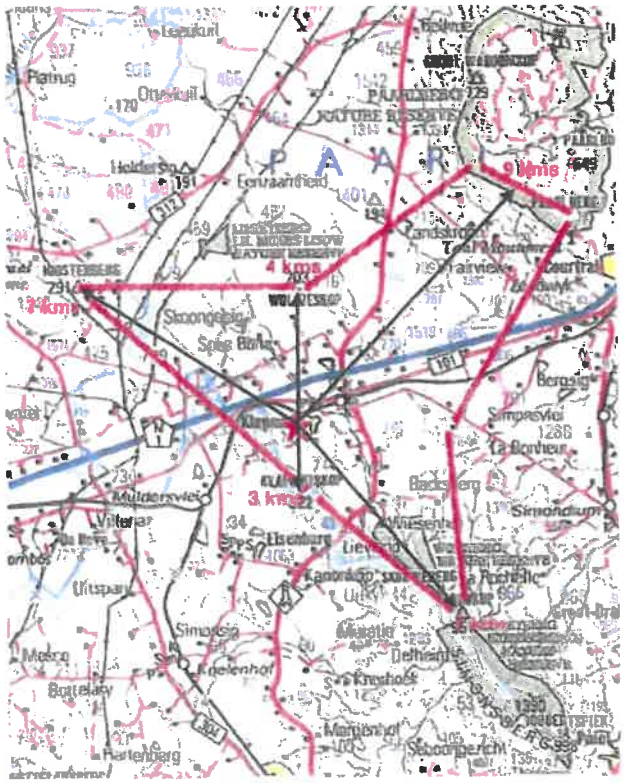


Figure 9: The View catchment of the proposed development.

7.2.2. Zone of Visual Influence

Distance, vegetation, landforms and buildings will reduce the area from which the site will be seen. This reduced area is the zone of visual influence (ZVI).

The ZVI is reduced by distance, local ridegelines, development and trees to:

- 1,8 kms in the south;
- 2 kms in the east along the R44;
- 500 meters in the north along the N2; and
- 1 km in the west along the ridgeline of Kanonkop.

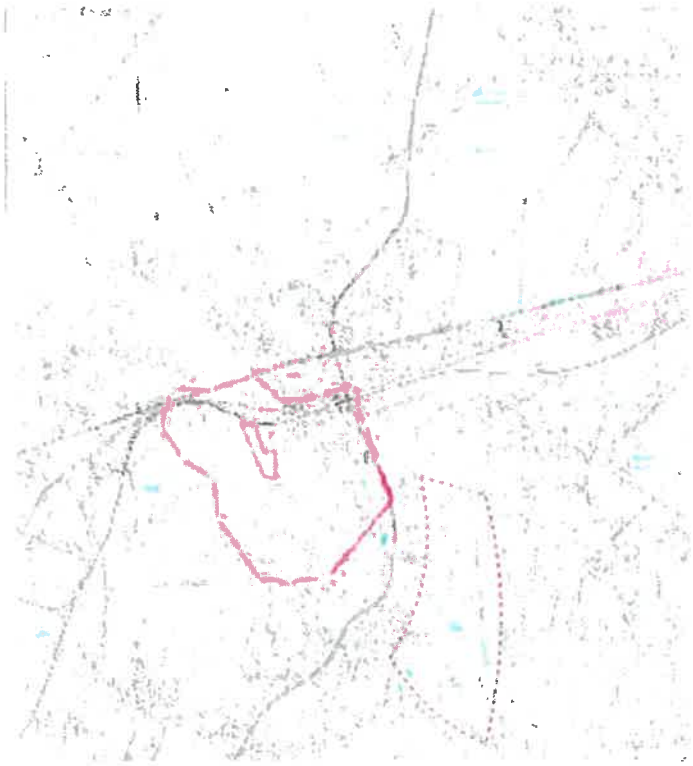


Figure 10: The ZVI of the proposed development.

Within this area, parts of the site will be obscured by trees or landforms or buildings or any combination thereof.

Further to the southeast and northeast, areas on hill tops will see the site from further away

*The ZVI for the proposed development is restricted to the **local** area, ranging from 500m's to 2 kms.*

7.2.3. Viewpoints

A number of viewpoints (VP 1 – 6) have been identified and photographed/computer generated. The position of these Viewpoints are illustrated on Figure 10 below.

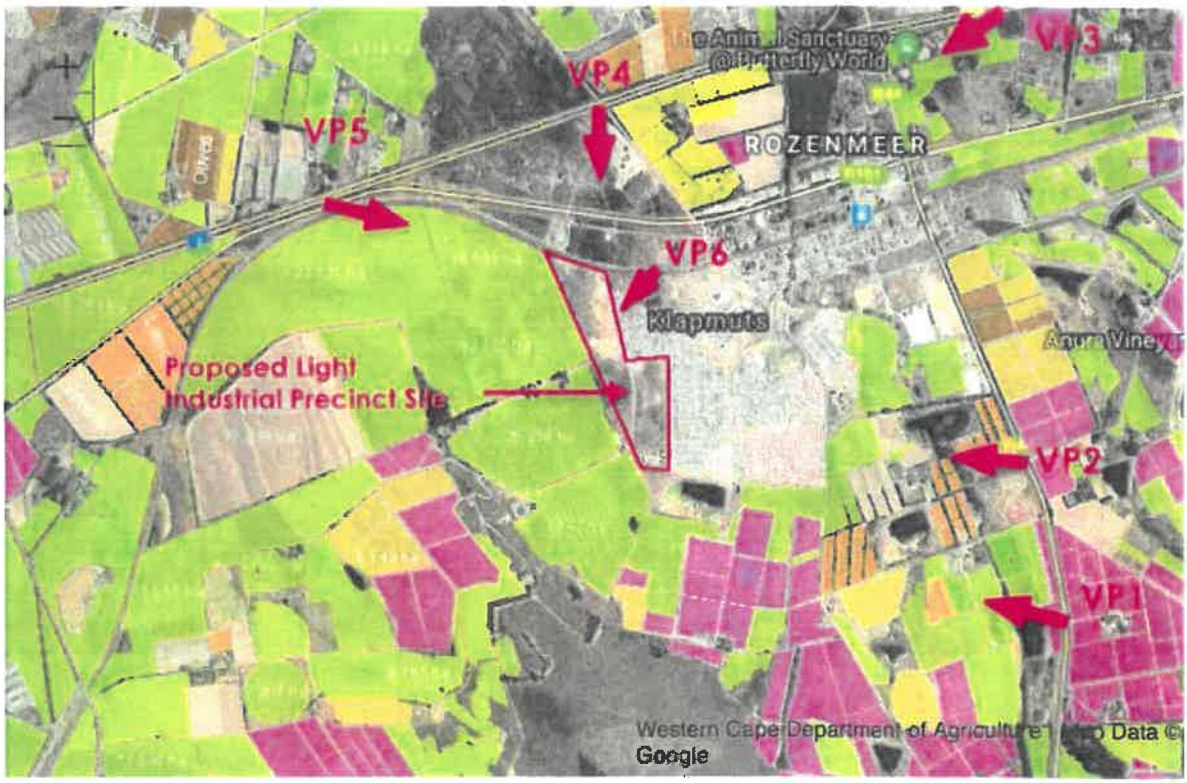


Figure 10: Identified viewpoints (VP1-6) of the site.

Viewpoint 1 (Vp1): From the R44, south east of the site at the entrance to Gravel Junction. This is approximately the furthest south east along the road that the proposed site and Light Industrial Development, or parts thereof, will be seen. This is approximately 2km south east of the site.

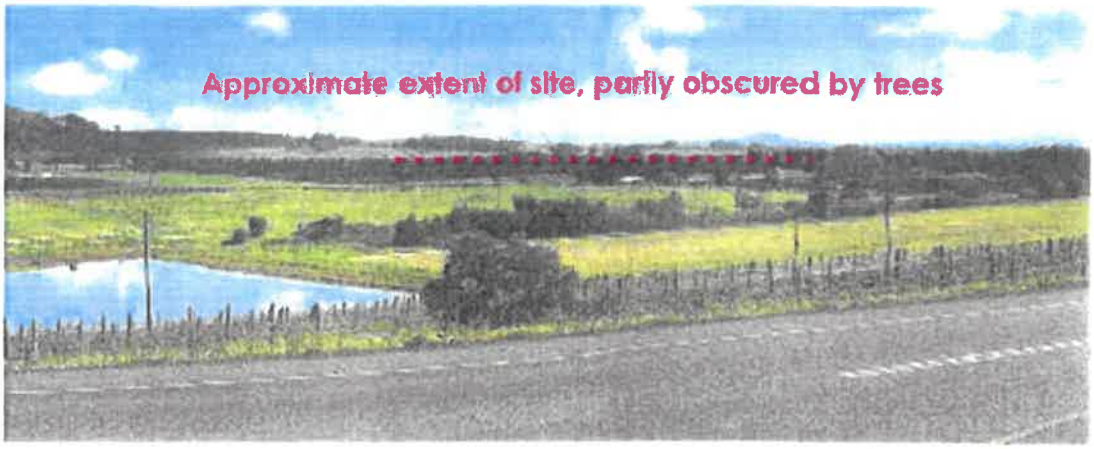


Photo Plate 5: Proposed Light Industrial buildings may be seen above the trees in the midground, from this part of the R44, approximately 2 kms to the south east of the site.

Viewpoint 2 (Vp2): from the R44 approximately 1,8 kms east of the site. From here, the existing trees will probably obscure the proposed Light Industrial Development. If these trees were to be removed, the proposed development could be seen

Photo Plate 6: View towards the proposed site of development, 1,8 kms east of the site. The existing trees in the mid ground of the photos will obscure the proposed Light Industrial Development

Viewpoint 3 (Vp3): from the N1 approaching the R44 /Klapmuts offramp from Paarl (east), approximately 2,5 kms from the site. The buildings of the Light Industrial Development will be seem in some areas of the site beyond the low cost housing while in other areas the existing trees and buildings in Klapmuts, that are on a higher elevation, will obscure new development.

Photo Plate 7: Taken from the N1 highway travelling towards Cape Town, i.e. in a westerly direction. Approximately 2,5 kms from the site and 100 meters from the off ramp to the R44/Klapmuts. Parts of the building development will be seen beyond the Low Cost Housing while parts will be obscured by trees

Viewpoint 4 (Vp4): Photograph taken from the N1 north of the proposed Light Industrial Site, railway line and Old Paarl Road, looking south. Existing alien vegetation currently obscures the site as will the railway line and Road. However upper portions of buildings may be visible. Note existing municipal building is partly visible above/through trees. Proposed Light Industrial Buildings are further back from this municipal building, so will be less visible.

Photo Plate 8: Photograph taken from the N1 north of the proposed Light Industrial Site, looking south. Site and buildings will be partially obscured

Viewpoint 5 (Vp5): from the N1 looking south - south east. The proposed development is on the lower valley plain beyond the municipal building (green) and railway line. Only upper portions
of the proposed Light Industrial buildings closer to the railway line, will be visible from the N1.

Photo Plate 9: Photograph taken from the N1 north west of the site. Proposed site and buildings will be behind the green municipal building

Viewpoint 6 (Vp6): Taken from the Bennetsville housing area, looking west. The proposed development is on the lower valley plain beyond the housing.

Photo Plate 10: Computer Generated View Of The Proposed Light Industrial Development From The Housing Area.

7.3. Receptors

The Level Of Visual Impact Considered Acceptable Is Dependent On The Type Of Receptors.

- ***High Sensitivity – E.G. Residential Areas, Nature Reserves And Scenic Routes Or Trails;***
- ***Moderate Sensitivity – E.G. Sporting Or Recreational Areas, Or Places Of Work;***
- ***Low Sensitivity – E.G. Industrial Or Degraded Areas.***

7.3.1. Highly sensitive receptors

Highly Sensitive Receptors Include:

- Residential areas:
    - Surrounding Farmsteads to the south and south east of the site will be highly sensitive receptors of the site. These include Braemar, Uitspan and Arra Vineyards
    - The residential settlement of Bennetsville in Klapmuts; and
    - Wiesenhof Nature Reserve and associated trails south east of the site.
- Scenic/tourist routes:
    - N1 approximately 200 m to the east and approximately 2kms to the north west of the site; and
    - R44 - approximately 2kms south east of the site;

7.3.2. Moderate sensitivity receptors

Moderate Sensitivity Receptors Include:

- Places of work on adjacent farms; and
- Places of work in Klapmuts

7.3.3. Low sensitivity receptors

Low sensitivity receptors include:

- Industrial areas within the study area e.g. Klapmuts Light Industrial Area;
- The railway line;
- The Municipal Waste Building and Eskom Substation north of the site.

*The receptors within the ZVI are inclusive of those rated as **low** to **highly** sensitive.*

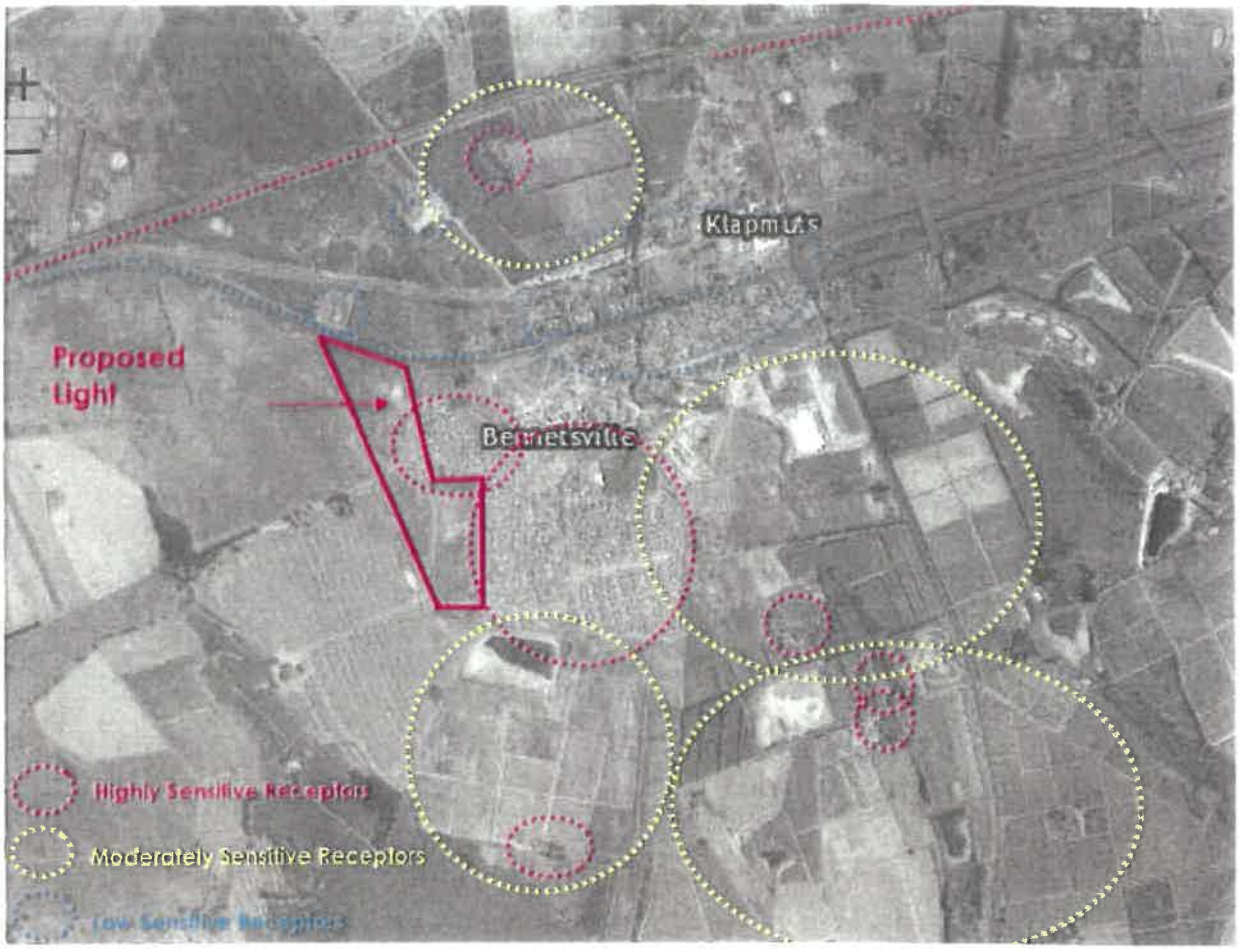


Figure 11: Receptors Around The Site

7.5. Visual Absorption Capacity

Visual Absorption Capacity is the potential of the landscape to conceal the proposed project

- ***High VAC* – e.g. effective screening by topography and vegetation;**
- ***Moderate VAC* - e.g. partial screening by topography and vegetation;**
- ***Low VAC* - e.g. little screening by topography or vegetation.**

The proposed site is on the low lying valley plain which is surrounded by mountains and hills. The surrounding landuse is predominantly rural with large trees used as windbreaks which in turn also provide some screening for the proposed site.

*The VAC of the site is **moderate** - e.g. partial screening by topography and vegetation.*

7.6. Visual Intrusion

Visual Intrusion is defined as the level of compatibility or congruence of the project with the particular qualities of the area, or its 'sense of place'. This is related to the idea of context and maintaining the integrity of the landscape or townscape.

- ***High visual intrusion*** **– results in a noticeable change or is discordant with the surroundings;**
- ***Moderate visual intrusion*** **– partially fits into the surroundings, but clearly noticeable;**
- ***Low visual intrusion*** **– minimal change or blends in well with the surroundings.**

The proposed Light Industrial Development is situated immediately east of and adjacent to the settlement of Klapmuts, in particular low cost housing and light industrial development.

To the west and south of the proposed site of Light Industrial development, the area is rural.

The proposed Light Industrial development will have a ***Low to Moderate Visual Intrusion*** *in the landscape . It will partially fit into the surrounding area, blending in with the Klapmuts development, but being noticeable from the adjacent rural landscape*

8. POTENTIAL VISUAL IMPACTS OF THE PROPOSED DEVELOPMENT

The potential visual impacts would occur during the construction and operation phase of the development. The nature of the visual impacts will be the visual effect the activity would have on the receiving environment.

The visual impacts will be assessed based on a synthesis of criteria (nature of impact, magnitude, extent, duration, Irreplaceble loss of resource, Reversibility Probability, status, level of significance and significance after mitigation) as defined by the NEMA regulations. See Appendix 2.

For the purposed of this report, the No-Go Alternative assumes that the proposed landuse depicted in the Stellenbosch Municipality SDF 2019 (illustrated in Figure 1 in this report) is what will be implemented. This is Mixed Used development on the western part of the site, Open Space in the north east and Local Economic Diversification in the south east.

The visual impacts are discussed below:

8.1. Construction phase:

8.1.1 Visibility of construction activity including clearing of building sites for construction

In order to install services and construct roads, then Light Industrial Buildings, the vegetation on the site, although predominantly low grasses, would be cleared, areas excavated, construction sites established and there would be an increase in construction vehicle activity. Due to the flat terrain, there will not be any cut and fill slopes of major visual consequence. The main visual impact would be the increase in activity visible to the immediate surrounding area. This visual impact would probably be an ongoing activity with roads, services and parking areas being provided as well as fencing and landscaping, followed by Light Industrial Building construction.

It is assumed that the fencing and landscaping proposed for the eastern edge as well as other boundaries and internal open spaces, would be part of the construction of access roads and services to the erven. This would provide visual mitigation for the ongoing construction of the Light Industrial areas.

Project Alternative	Potential Environmental Impact / Nature Of Impact	Environmental Significance																	Mitigation
		Before Mitigation									After Mitigation								
		M	D	E	I	R	P	Total (Sp)	S	Cumulative	M	D	E	I	R	P	Total (Sp)	S	Cumulative
	Potential Impacts On Visual Aspects Of The Environment.																		
Project Activity:	**COnstruction Phase.**																		
Preferred Alternative	Visibility Of Construction Works Form Immediately Surrounding Areas	6	3	2	4	5	5	100	(H) (-)	M	5	3	1	3	3	3	45	M (-)	M
"No - Go" Alternative	Visibility Of Construction Works 'No-Go' Alternative From Surrounding Area	6	3	2	3	4	4	68	M (-)	M	5	3	1	3	3	4	60	M (-)	M

Limit Extent Of Damage/Clearing - Use Fence To Restrict Activity

Erect Boundary Fencing/Walls And Install Landscaping In Buffer Areas Surrounding The Development, Along Access Roads And In The Open Spaces Provided As Soon As Development Approval Is Permitted

Note: Additional Mitigation Should Be Implemented During The Operational Phase: Landscape Cut/Fill Slopes/Terraces/Retaining Walls And Use Natural Finishes And/Or Colours On Retaining Walls

Architectural Guidelines For The Built Environment Should Be Drawn Up So That The New Built Environment Meets The Policies Provided By The Sdf.

Landscaping Guidelines Inclusive Of Planting, Walling, Fencing And Paving, Must Be Provided For The Development On These Erven To Minimise Visual Impacts

8.2. Operation Phase

The potential visual impacts will be:

- Change of visual character from an undeveloped site to a Light Industrial Precinct, with buildings up to 10m high;
- Visibility from sensitive receptors including the R301, R44 and N1
- Visual intrusion of night lighting.

8.2.1 Change of visual character from a predominantly undeveloped rural site to a Light Industrial Site with buildings up to 10m in height

The flat, tranquil, green and vegetated open space will become a busy Light Industrial Site with buildings up to 10m high, regular light and heavy vehicular activity to and from the sites, hard paved and lit surfaces and some landscaping.

Project Alternative	Potential Environmental Impact / Nature Of Impact	Environmental Significance																	Mitigation
		Before Mitigation									After Mitigation								
		M	D	E	I	R	P	Total (Sp)	S	Cumulative	M	D	E	I	R	P	Total (Sp)	S	Cumulative	
	Potential Impacts On Visual Aspects Of The Environment.																		
Project Activity:	**Operation Phase.**																		
Preferred Alternative.	Change From A Rural Pasture With Grazing Cattle To A Site Built With Light Industrial Buildings	6	5	2	3	4	5	100	H (-)	M	5	3	1	3	3	3	45	M (-)	M	Ensure Building And Landscaping Guidelines Are Implemented Tree Planting Must Occur On Completion Of Construction And Must Be Maintained (Watered) Till Well Established (5Years)
"No - Go" Alternative	Visibility Of No-Go Alternative From Sensitive Receptors	6	5	2	2	4	5	95	H (-)	M	5	3	1	3	3	3	45	M (-)	N	Architectural Guidelines For The Built Environment Should Be Drawn Up So That The New Built Environment Meets The Policies Provided By The Sdf. Landscaping Guidelines Inclusive Of Planting, Walling, Fencing And Paving, Must Be Provided For The Development On These Erven To Minimise Visual Impacts

8.2.2 Visibility from sensitive receptors including the Wiesenhof NR, Secondary scenic routes R301, N1 and R44 and adjacent residential area

The proposed development will be visible, in varying degrees, from the sensitive receptors in the Zone of Visual Influence. From the Wiesenhof NR in the south east, it will be visible but distance and the proposed landscaping within and on the borders of the Light Industrial site will minimise the visibility. From the secondary scenic routes the proposed developments will be partially screened by existing vegetation and buildings and the railway line which being elevated as it crosses the floodplain. The adjacent residents of Bennetsville will see the proposed development clearly.

Project Alternative	Potential Environmental Impact / Nature Of Impact	Environmental Significance																Mitigation
		Before Mitigation									After Mitigation							
		M	D	E	I	R	P	Total (Sp)	S	Cumulative	M	D	E	I	R	P	Total (Sp)	S	Cumulative	
	Potential Impacts On Visual Aspects Of The Environment.																			
Project Activity:	Operation Phase																			
Preferred Alternative	Visibility From Sensitive Receptors	5	5	2	3	4	5	95	M-H (-)	M	5	4	2	3	3	3	51	M (-)	M	Ensure Building And Landscaping Guidelines Are Implemented Tree Planting Must Occur On Completion Of Construction And Must Be Maintained (Watered) Till Well Established (5Years)
"No - Go" Alternative	Visibility Of No-Go Alternative From Sensitive Receptors	5	5	2	3	4	4	74	M (-)	M	4	4	2	3	3	3	51	M (-)	M	Architectural Guidelines For The Built Environment Should Be Drawn Up So That The New Built Environment Meets The Policies Provided By The Sdf. Landscaping Guidelines Inclusive Of Planting, Walling, Fencing And Paving, Must Be Provided For The Development On These Erven To Minimise Visual Impacts

8.2.3 Visual intrusion of night lighting

Along With New Buildings And Roads Will Come Lighting. The External Building Lights And Street Lighting Will Be Visible From The Surrounding Areas At Night.

Project Alternative	Potential Environmental Impact / Nature Of Impact	Environmental Significance																Mitigation
		Before Mitigation									After Mitigation							
		M	D	E	I	R	P	Total (Sp)	S	Cumulative	M	D	E	I	R	P	Total (Sp)	S	Cumulative	
	Potential Impacts On Visual Aspects Of The Environment.																			
Project Activity:	Operation Phase																			
Preferred Alternative	Visibility From Sensitive Receptors	5	5	3	3	4	5	100	H (-)	M	4	4	2	3	3	4	64	M (-)	M	A Lighting Guideline Must Be Drawn Up To Ensure Spotlighting, Exterior Lighting And Street Lighting Is Dealt With In Such A Way That Light Pollution Is Minimised.Ensure Building And Landscaping Guidelines Are Implemented Tree Planting Must Occur On Completion Of Construction And Must Be Maintained (Watered) Till Well Established (5Years)
"No - Go" Alternative	Visibility Of No-Go Alternative From Sensitive Receptors	5	5	3	3	4	5	100	H (-)	M	4	4	2	3	3	4	64	M (-)	M	Architectural Guidelines For The Built Environment Should Be Drawn Up So That The New Built Environment Meets The Policies Provided By The Sdf. Landscaping Guidelines Inclusive Of Planting, Walling, Fencing And Paving, Must Be Provided For The Development On These Erven To Minimise Visual Impacts

8.3. Cumulative impact

The potential cumulative visual impacts would be additive in nature and moderate in significance i.e. the proposed Light Industrial development will have a moderate cumulative impact resulting from additional development in the area. While the proposed development would change the visual character from a predominantly rural site to a densely built site, the proposed mitigation measures will minimise the direct impacts to a degree.

9. MITIGATION MEASURES

The visibility and visual impact of the development may be reduced through the implementation of mitigation measures which would reduce negative visual impacts and enhance positive visual impacts.

The site of proposed development has been identified by the Stellenbosch Municipality for development, and the architectural and landscape guidelines comply with the principles of the various policy documents in terms of maintaining the Sense of Place of the site and surrounding area.

The appointed Architect, Landscape Architect, Environmental Officer and the Local Authority will be required to monitor the implementation of these mitigation measures.
Mitigation measures that will assist in minimising visual impacts are:

9.1. During Planning:

9.1.1 The proposed Building Guideline Document (Stellenbosch Bridge, Annexure F, Light Industrial Precincts, Development Manual, 2019 by OL) provides Urban Design Principles and Architectural Codes and Guidelines, that if enforced, will result in a built environment that will not detract from the scenic resource of the area.

Similarly, the Landscape Framework and Design Guidelines, 2019, Square One Landscape Architects also provide overarching principles, guidelines and concepts that if implemented, would mitigate the potential visual impacts and enhance the scenic resources.

The method of implementing these principles, guidelines and codes needs to be drawn up such that this vision is realised.

9.1.2 Appropriate Lighting design that minimises light pollution must be addressed during the planning stages:

- Street and parking area lights must be minimised and must be on light poles not higher than 3 - 5m. (reference Hout Bay Main Road). Where possible these should be bollard lights.

- The luminaires on poles and bollards must be top shielded so that light only shines downwards, thereby preventing pollution
- Light spillage should be contained
- No uplighting onto buildings
- No neon lights/signs allowed
- No spotlights. Security lighting to be motion-censored and used in tandem with other security measures

9.2. During Construction:

- Survey and demarcate no-go areas to restrict earthworks and minimize disturbance and visual scarring. Only work in areas where construction is going to happen immediately.
- Limit extent of damage, keeping cut and fill to a minimum. Minimise disturbance through fencing off construction areas, thereby protecting and retaining grass and vegetation in the areas that will not be built on.
- Revegetate service areas and public street verges immediately after construction and continue maintenance eternally.
- The site must be kept clean and tidy at all times
- Building material stockpiles must be protected from dispersion into the surrounding terrain by wind and water;
- A concerted effort must be made to minimise dust generation and its effects on the surrounding buildings and dwellings.

9.3. During Operation

It is of importance that the Visual Mitigation measures provided are carried through into the operation phase of the development - responsibilities shift from Developer to the Owners Association. To this end it must be ensured that the:

- Owners Association (OA) have an Operational Plan that clearly states their obligations in terms of ongoing maintenance of buildings and landscaping and that the maintenance actions comply with the architectural and landscaping guidelines provided for this Visual Impact Assessment and this VIA's mitigation measures
- OA monitor the building and landscape guidelines for the individual erven
- OA maintain buidings and landscaping to a high standard

- OA continue minimising light pollution - restrict street light height to maximum 3 - 5 m, luminaires must be top covered, low spill type lights to minimize light spill and pollution, keep outdoor lighting as bollard lighting, external lighting on buildings must be minimised or completely omitted etc.

10. DISCUSSION

The proposed site is within the Klapmuts Urban Edge and is shown as Mixed Use, Open Space and Local Economic Diversification. The proposed Light Industrial Development includes up to10m high buildings, roads, parking areas and landscaping.

While the rural landscape of high scenic quality dominates the adjacent settlement of Klapmuts with its Light industrial and low cost residential housing provides a setting for the proposed development.

The proposed architectural and landscape architectural guideline documents promise a development that will be fitting in the Cape Winelands.

The visual impacts of this proposed Light Industrial development on the rural character of the area and on the receptors in the surrounding area will be high. The additional lighting as a result of this development will be a high visual impact at night.

In addition to the Urban Design, Architectural and Landscape Architectural principles and guidelines, additional measures are imperative to reduce the visual impact of the proposed development. What will be seen must enhance the visual character and scenic resources of the area.

Should the mitigation measures proposed be well-monitored and fully-implemented, the anticipated visual impacts of the proposed development would be kept to within acceptable levels.

11 Recommendations

It is recommended that the following are included as Conditions of Approval of the revised Record of Decision from DEA&DP:

- The proposed Urban Design, Architectural and Landscape Architectural design principles and guidelines be implemented across the proposed development;
- That the required mitigation measures regarding Lighting and Signage are planned and designed for and implemented;
- That an Operation Management Plan for Buildings, Infrastructure and Landscaping is produced by the Project Consultants which will prescribe maintenance requirements in order to retain buildings and infrastructure in good condition and provide for the ongoing establishment of the landscape.
- The Construction Mitigation Measures are included in the EMP.

We are of the opinion that if these recommendations and mitigation measures are enforced, that the proposed development will have a moderate visual impact and, in time, with the maturing of trees that should be planted, the development will not detract negatively from the highly rated Cape Winelands scene.

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Western Cape Government (Wcg), 2014. Provincial Spatial Development Framework.

Stellenbosch Municipality, 2019. Draft MunicipAl Spatial Development Framework.

Cape Winelands Professional Practices In Association. January 2017. Phase 2A Report Preliminary Draft Heritage Inventory Of Large-Scale Landscape Areas In The Rural Domain Of The Stellenbosch Municipality Informing Proposed Heritage Areas

OL Architects. Stellenbosch Bridge, Annexure F, Light Industrial Precincts, Development Manual, 2019

Square One, Stellenbosch Bridge_Landscape Framework & Design Guidelines_2019-12-03

13 APPENDICES

Appendix 1: Expertise – list of projects

Selected Project List Specific To Visual Impact Assessments

Visual Impact Assessments Undertaken Include For A Variety Of Developments Including Industrial, Energy (Wind And Solar Farms), Residential And Mixed Use At Different Scales And Predominantly In The Western Cape With Some Projects In Mozambique And Uganda.

Capetel, Wemmershoek Mast, Level 2 Via For Municipal Authority.
La Motte Affordable Housing, Franschhoek, Via For Hia, 2015
Elandskloof Community Re-Settlement Via For Hia, 2015
La Motte, S24 Visual Statement, 2014
Zanddrift Residential Development, South Paarl, Via, 2014.
Cedar Park Residential Development, Sir Lowry's Pass, 2014
R44 Between Somerset West And Stellenbosch, Upgrade Of 3 Intersection, 2014
Philippi Urban Edge Amendment, Visual Statement, 2014
Val De Vie, Paarl, Residential Development, 2014
Preekstoel Residential Development, Stilbaai, 2014
Zandrif Residential Development, Paarl, 2014
Philippi Urban Edge Amendment, Cape Town, 2014
Louisvale Winery, Stellenbosch, 2014
Elandskloof Historic Settlement, Citrusdal, 2014
Nbg: Bettys Bay, Worcester, Kirstenbosch And Niewoudtville – New Admin Buildings, 2014
Vredenheim Mixed Use Development, Stellenbosch, 2014
Proposed Boutique Lifestyle Centre, Stellenbosch, 2013
Namaqualand Mall, Springbok, 2013
Stellenbosch Mediclinic Development, Extension To Building, 2013
Bosjesmansdam Valley, Worcester, Accommodation, Chapel And Wine Tasting Facility, 2013
Natures Path Lifestyle Village, Keurboomstrand, 2013
Brakkekloof And Donkergats Rivier Solar Farms, Atlantis, West Coast (2012)
Erf 2003 Melkbosstrand, Cape Town Mixed Use Development, 2011
Proposed Wind Energy Farm At Clover Valley Farm, Darling On West Coast Plain (2011)
Jacobsbaai Tortoise Reserve – Residential Resort Development On The West Coast Of West Cape (2011)
Proposed Development Of A Wind Energy Project At Langefontein Farm Near Saldanha Bay (2011)
Four Proposed Windfarms In The Garden Route Area (2010 – 2011)

The Hill, Sedgefield – Via Of Proposed Housing Development On Dunes North Of N2, Sedgefield (2009)
Leukenberg, Gordons Bay - Via Of Proposed Mixed Use Development On Urban Edge (2009)
Seawinds, Saldanha Bay – Vis Of Proposed New Industrial Area At Blouwaterbaai, Saldanha (2008)
Skoongesig, St Helena Bay – Via Of Proposed New Electricity Line And Sub-Station (2008)
Tullow Oil, Uganda, 2007
The Point, Kalk Bay – Visual Sensitivity Assessment To Inform Development (2001)
Erf 24, St Helena Bay – Via Of Proposed Housing Development On Hillside Above West Coast Town (2005)

2012 Vias

Paarl Boys High School, Paarl – Sport Fields Development
Plattebosch, Stilbaai – Residential Development – Via Review
Rheebokskloof Farm, Paarl – Proposed Residential Development
Groot Parys, Paarl - Residential Development

2011 Vias

Proposed Overberg Windfarm (2010 – 2011)
County Fair Chicken Farm, Fisherhaven – (2011)
Visual Statement For Kalbaskraal Solar Project
Somerset College, Somerset West – New Sports Facilities

2010 Vias

Ascot Residential Development, Port Elizabeth
Caledon Residential Development
Constantia Nek Residential Development
Erf 29 + 30, Clifton, Apartments Development
3 Vodacom Masts – Hermanus, Villiersdorp And Klipdale
De Hoek, Power Transmission Lines

2009 Vias

Klipland, Paarl – Via Of Proposed Housing Development On N1 Adjacent To Paarl
Salmonsvlei, Paarl – Via Of Proposed Housing Development On N1 Adjacent To Paarl
Swartland Mall – Via Of Proposed Mixed Use Development On Urban Edge Of Country Town Of Malmesbury

2008 Vias

Dassenberg, Noordhoek – Via Of Proposed Housing Development On Hillside Adjacent To Ou Kaapse Weg And Tmnp
Dewaldorf, Stellenbosch – Via Of Proposed Mixed Use Development Along R44 And On Urban Edge

Gevonden, Stellenbosch - Via Of Proposed Mixed Use Development On Urban Edge
Gordons Bay Mall – Via Of Proposed Commercial Development Outside Urban Edge
Klapmuts, Winelands – Via Of Proposed Mixed Use Development On Urban Edge
Stellenbosch Wine And Country Estate – Via Of Proposed Upgrading Of An Agricultural Unit To Create A Wine Estate Development With Residential And Tourism Opportunities
Paarl Waterfront - Via Of Proposed Mixed Use Development On Berg River, Paarl
The Estates, Stellenbosch – Via Of Proposed Wine Tasting And Restaurant Facility On The R44
Voelklip, *Hermanus – Via Of Housing Development On Main Road, Hermanus*
Voortrekker Camp, Wemmershoek – Via Of Proposed Conference And Camp Facility Development
Oudemolen Development – Via Of Redevelopment For Mixed Use Purposes, Pinelands
Mcgregor, Wc - Via Of Proposed Housing Development

2007 Vias

Glencairn Erf 1 – Residential Development
Glencairn Erf 3410 – Residential Development
Herolds Bay – Residential Development
Rheebokskloof – Resort Development
Hawston – Afdaksrivier – Residential Development

2006 Vias

Brandwacht Farm No. 1049, Stellenbosch – Visual Spatial Analysis Of Historic Farm 'Werf' And Proposed Development
Proposed Eskom Mast, Perdekop, Farm 215, Baardskeerdersbos – Visual Impact Assessment Of Proposed Eskom Mast
Flaminkberg Vodacom Tower – Via Of Proposed Tower Adjacent To N7 On Mountain Top In Knersvlakte

2000 – 2005 Vias

Berg River Farm 913 - Visual Impact Assessment Of Proposed Development Of Farm On Berg River, (2005)
La Cotte – Visual Impact Assessment Of Proposed Development Of Historic Farm, Franschhoek (2003)
Xai Xai Export Facility (Harbour) Visual Assessment, Mozambique (2003)
Linden Farm, Hout Bay – Via Of Proposed Development On Historic Farm (2003)
Siemens Communication Mast – Kirstenbosch (2003)
Somerset West Vodacom Tower – Visual Assessment Of Three Options (2001)
Bloubergstrand East-West Arterial Road – Via Of Four Alternative Proposed Routes. (1999)
Blaauberg City - Roads And Housing Development, 2000
Sonop Winery, Paardeberg – Visual Review Of Development (2000)
'Die Dam' Vodacom Tower – Visual Impact Assessment (2000)

Versfeld Park, Piketberg – Visual Impact Assessment Of Conference Facility And Housing Development (2000)

Worcester Casino – Visual Impact Assessment Of Proposed Development (2000)

Hout Bay Main Road – Visual Scoping Of Proposed Alternative Routes (2000)

R300 Ring Road – Visual Sensitivity Of Proposed Route (2000)

Die Dam - Vodacom Mast Along Overberg Coastline, West Cape (2000)

Paapekuilsfontein – Struisbaai, Visual Impact Assessment Of Proposed Residential And Commercial Development In This Coastal Village In Western Cape (2000),

Dido Park, Simonstown, Cape Town - Vias For Further Development Of This Coastal Area (2000)

Pringle Cove Abalone Farm – Visual Assessment For Scoping Phase Of Proposed Development (2000)

Pre 2000 Vias

Cape Metropolitan Area - Visual Sensitivity/Significance Mapping, 1999 – 2000, 2002

Coega Idz, Port Elizabeth - Supplementary Via Of Coega Harbour, 1998

Soetwater And Millers Point – Visual Resource Mapping For Development Opportunities, 1999

Blaaumountain - Tourist Development, 1998 – Visual Sensitivity Mapping Of The Area To Inform Development

Capricorn Landmark - Proposed Landmark, 1998

Kenilworth Race Course Housing Developments (1998)

Milnerton Golf Hotel - Proposed Hotel Development On Woodbridge Island, 1998

Vredekloof – Vodacom Mast Via Of Proposed Mast (1998)

Farm 234 – Milnerton, Via Of The Proposed Housing Development On Diep River (1997)

Fish Hoek By-Pass – Visual Assessment Of Proposed Road (1990)

Outeniqua Pass Road – Visual Assessment Of Proposed Upgrade (1990)

Du Toit's Kloof – Visual Assessment Of Proposed Upgrade (1989)

Appendix 2: Assessment Criteria

4.3 Assessment Methodology to be Used

Specialist Reports should furthermore also include the following:

- An assessment of the impacts associated with the proposed development, with the 'no-go' option and an alternative layout. The impact assessment should consider the following:
  - An indication, prediction, assessment and evaluation of potential (positive or negative) significant direct impacts associated with the construction, operational and de-commissioning phases of the project (as applicable – it is not envisaged that the proposed project will be decommissioned), as well as indirect and cumulative impacts. The impacts associated with the specific listed activities that will be triggered by the proposed project in terms of the EIA Listing Notices of 2014, should also be assessed. See Table 1 above.
  - An assessment of the nature of potential impacts, and a description of the manner in which they could be affected (both positive and negative). This description should include what is to be affected and how it is to be affected.
  - A determination of the significance of the potential impacts of the proposed development on all project activities, components and alternatives
    - The significance of each potential impact, with and without the implementation of the proposed mitigation measures, should be assessed based on the following variables (evaluation components):
      - Extent (spatial scale);
      - Magnitude;
      - Duration (time scale);
      - Probability of occurrence;
      - Irreplaceable loss of resources; and
      - Reversibility of the impact.

      The evaluation components, ranking scales and descriptions to be used to assess these are provided in Table 5 below.
    - Once the evaluation components have been ranked for each impact, the significance of the potential impact should be calculated using the following formula:

      SP (Significance Points) =
      (Magnitude + Duration + Extent + Irreplaceable + Reversibility) X Probability

      The maximum value is 150 SP (Significance Points). Table 4 below provides the definitions of the calculated significance ratings. The significance rating of the unmitigated and mitigated scenarios for each impact should be calculated and rated as indicated on Table 5 below.
- The specialist should propose mitigation/management actions to reduce potential negative impacts, and enhance potential positive impacts, and monitoring measures that may need to be taken up in the Environmental Management Programme (EMP).

Table 5: Evaluation components, ranking scales and descriptions (criteria).

Evaluation Component	Ranking Scale and Description (Criteria)

Evaluation Component	Ranking Scale and Description (Criteria)
MAGNITUDE of NEGATIVE IMPACT (at the indicated spatial scale)	10 - Very High (negative): Biophysical and/or social functions and/or processes might be severely altered. 8 - High (negative): Biophysical and/or social functions and/or processes might be considerably altered. 6 - Medium (negative): Biophysical and/or social functions and/or processes might be notably altered. 4 - Low (negative): Biophysical and/or social functions and/or processes might be slightly altered. 2 - Very Low (negative): Biophysical and/or social functions and/or processes might be negligibly altered. 0 - Zero: Biophysical and/or social functions and/or processes will remain unaltered
MAGNITUDE of POSITIVE IMPACT (at the indicated spatial scale)	10 - Very High (positive): Biophysical and/or social functions and/or processes might be substantially enhanced. 8 - High (positive): Biophysical and/or social functions and/or processes might be considerably enhanced. 6 - Medium (positive): Biophysical and/or social functions and/or processes might be notably enhanced. 4 - Low (positive): Biophysical and/or social functions and/or processes might be slightly enhanced. 2 - Very Low (positive): Biophysical and/or social functions and/or processes might be negligibly enhanced. 0 - Zero: Biophysical and/or social functions and/or processes will remain unaltered.
DURATION	5 - Permanent 4 - Long term: Impact ceases after Operational Phase life of the activity (~ 20 years) 3 - Medium term: Impact might occur during the Operational Phase life of the activity (0 to 20 years). 2 - Short term: Impact might occur during the Construction Phase (~ 1 year) 1 - Immediate
EXTENT (or spatial scale/influence of impact)	5 - International: Beyond National boundaries. 4 - National: Beyond Provincial boundaries and within National boundaries. 3 - Regional: Beyond 5 km of the proposed development and within Provincial boundaries. 2 - Local: Within 5 km of the proposed development. 1 - Site-specific: On site or within 100 m of the site boundary 0 - None
IRREPLACEABLE (loss of resources)	5 - Definite loss of irreplaceable resources. 4 - High potential for loss of irreplaceable resources. 3 - Moderate potential for loss of irreplaceable resources. 2 - Low potential for loss of irreplaceable resources. 1 - Very low potential for loss of irreplaceable resources 0 - None
REVERSIBILITY (of impact)	5 - Impact cannot be reversed. 4 - Low potential that impact might be reversed. 3 - Moderate potential that impact might be reversed. 2 - High potential that impact might be reversed. 1 - Impact will be reversible. 0 - No impact.
PROBABILITY (of occurrence)	5 - Definite: >95% chance of the potential impact occurring. 4 - High probability: 75% - 95% chance of the potential impact occurring. 3 - Medium probability: 25% - 75% chance of the potential impact occurring. 2 - Low probability: 5% - 25% chance of the potential impact occurring. 1 - Improbable: <5% chance of the potential impact occurring.

Evaluation component	Ranking Scale and Description (Criteria)

CUMULATIVE impacts	High: The activity is one of several similar past, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and or socio-economic resources of local, regional or national concern. Medium: The activity is one of a few similar past, present or future activities in the same geographical area, and might have a combined impact of moderate significance on the natural, cultural, and/or socio-economic resources of local, regional or national concern. Low: The activity is localised and might have a negligible cumulative impact. None: No cumulative impact on the environment.

Table 4: Definition of significance ratings (positive and negative)

Significance Points	Environmental Significance	Description
125 – 150	Very High (VH)	An impact of very high significance will mean that the project cannot proceed, and that impacts are irreversible, regardless of available mitigation options.
100 – 124	High (H)	An impact of high significance which could influence a decision about whether or not to proceed with the proposed project, regardless of available mitigation options.
75 – 99	Medium-high (M+)	If left unmanaged, an impact of medium-high significance could influence a decision about whether or not to proceed with a proposed project. Mitigation options should be re-evaluated at.
41 – 74	Medium (M)	If left unmanaged, an impact of moderate significance could influence a decision about whether or not to proceed with a proposed project.
0 – 40	Low (L)	An impact of low is likely to contribute to positive decisions about whether or not to proceed with the project. It will have little real effect and is unlikely to have an influence on project design or alternative motivation.
+	Positive impact (+)	A positive impact is likely to result in a positive consequence effect, and is likely to contribute to positive decisions about whether or not to proceed with the project.

Appendix 3: Architectural Guidelines

Appendix 4: Landscape Master Plan Concept

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MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE Q

SOCIO-ECONOMIC IMPACT ASSESSMENT

multipurpose
business solutions

Socio-economic Impact Assessment for the proposed Stellenbosch Bridge development in Klapmuts, Stellenbosch

Draft Consultative Report
prepared by Dr Jonathan Bloom
for Stellenbosch Bridge Properties (Pty) Ltd

June 2020

This report consists of 116 pages

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Executive Summary

On 22 November 2011, the Stellenbosch Municipality approved the Klapmuts Hills development, which included the Development Framework, rezoning, subdivision and departures to permit urban development on this site within an approved Basket of Rights (1 577 residential units and a GLA of 23 200m² for retail and associated services and facilities). Due to unfavourable market conditions, the implementation of the project was never activated. The delays resulted in extensions for the Environmental Authorisation and land use rights being submitted and approved on 18 September 2017; the existing development rights will lapse on 22 November 2021. The time-lapse also allowed the re-imagination of the Klapmuts Hills development as an innovation precinct that will attract local and international innovation stakeholders to locate in a mixed-use live, work, play and innovate environment. The development was renamed as Stellenbosch Bridge and includes the original Klapmuts Hills site as well as several land units west of Klapmuts.

Four applications are planned:

- **Application 1**: Reallocation of the existing rights approved for Farm 742/5 for the redevelopment of the site as part of the innovation precinct and in terms of the service capacities already provided for. The application will involve amendment of the approved Development Framework Plan, Phasing Plan, Subdivision Plan and conditions of approval to accommodate the revised development layout plan. The revised development plan will tie in with the draft Stellenbosch Bridge Development Framework that will be submitted as part of Application 3;
- **Application 2**: Rezoning and Subdivision of Farm 744/2, which has been part of the Klapmuts urban edge since before 2001;
- **Application 3**: Densification on Farm 742/5 in terms of a Development Framework with supporting documentation and plans for the Stellenbosch Bridge Innovation Precinct;
- **Application 4**: Development Rights for land included in the urban edge in terms of the 2019 Stellenbosch MSDF.

Fit with spatial planning

In keeping with the *Guidelines for Economic and Social and Specialist input into EIA Processes* (CSIR, 2005 and Department of Environmental Affairs and Development Planning, 2007), the project should fit with planning frameworks and is desirable from a societal cost-benefit perspective. In order to provide some context, the provincial, regional and metro SDFs (together with related frameworks, interpretation reports and discussion documents) and Local Economic Development plans and strategies (together with other documents that offer guidance) were considered as a premise for this part of the assessment. In addition, other planning and development guidelines and policies are considered where appropriate.

The Stellenbosch Spatial Development Framework and IDP are the primary planning tools for the Stellenbosch area and therefore the proposed development, as it incorporates the provisions of all other broader level plans for the area and therefore forms the initial basis for the economic assessment of the proposed Stellenbosch Bridge development. Stellenbosch town and Klapmuts were identified as spatial areas for priority development over the MSDF planning period are (p. 74).

Our assessment of the spatial planning frameworks of the local, district and provincial authorities suggests that the proposed Stellenbosch Bridge development supports and fits with the spatial planning principles of the Stellenbosch Municipality as indicated in the IDP and SDF from a socio-economic perspective and specifically with the focus on Klapmuts. The Stellenbosch Bridge development is in the delineated urban edge of Klapmuts and the part not included, is earmarked for agriculture.

The proposed project is positioned as a development that is intended to contribute towards business, housing and infrastructure development in the Klapmuts area, but specifically in a node where the community needs private investment to uplift their socio-economic well-being and create more sustainable employment.

Summary of impacts

The question that needs to be addressed in the context of perceptions and concerns raised by Interested and Affected Parties is whether the proposed development is desirable from a societal cost-benefit perspective? Several issues of a social nature were raised and discussed in this report and the need thus exists to determine whether mitigation could be applied and to what extent the developer would be willing to introduce the recommended mitigation measures.

Development Applications

- **Application 1** entails the reallocation of the existing rights approved on Farm 742/5 for the redevelopment of the site as part of the innovation precinct and in terms of the services capacity already provided for the Klapmuts Hills development. The application will involve amendment of the approved Development Framework Plan, Phasing Plan, Subdivision Plan and conditions of approval to accommodate the revised development layout plan. The revised development plan will tie in with the draft Stellenbosch Bridge Development Framework that will be submitted as part of Application 3.
- **Application 2** refers to the Rezoning and Subdivision of Remainder Farm 744/2, which falls within the Klapmuts urban edge. The site is the portion of land situated between the western edge of the existing Klapmuts urban area and the Klapmuts Hills site to the west (Portion 5 of Farm 742, Paarl). Despite its agricultural zoning, the site has been included within the Klapmuts urban edge for many years and envisaged to form part of the town's expansion westwards
- **Application 3**: Densification on Portions 1 & 3 (73 ha), i.e. 2 500 residential units (apartments), 150 000 m² bulk (mixed-use);
- **Application 4**: Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106 ha).

Development Alternatives

The **No-Go alternative** implies that the *status quo* is maintained, i.e. the land stays vacant. However, given the size of the property and its strategic location, there will most likely be future pressure for development if the current proposal is not approved.

Impact Ratings

To provide a perspective of the net societal benefits and costs associated with the proposed project, the following table summarises the different the socio-economic impacts associated with the proposed Stellenbosch Bridge development, and their respective significance before and after implementation of mitigation measures (i.e. the residual impact) as proposed by the relevant specialists.

Nature of the Impact	Rating before mitigation		Rating after mitigation (Residual impact)	
	Application 1	Application 2	Application 1	Application 2
Construction				
Traffic flows along access roads	80	80	60	60
Nuisance factors (dust and noise)	65	65	55	55
Influx of job-seekers	65	65	55	55
Increase in local crime	52	52	36	36
New employment opportunities	55	65		
Economic income	55	55		
Operations				
Sense of place	76	76	51	51
Provision of housing	85	85		
Surrounding property values Existing residential erven	51	51	39	39

Nature of the Impact	Rating before mitigation		Rating after mitigation (Residual impact)	
	Application 1	Application 2	Application 1	Application 2
Unimproved land	36	36		
Traffic flows along access roads	95	75	85	65
Increase in local crime	60	60	33	33
Bulk infrastructure requirements/contributions	52	52	33	33
New employment opportunities	60	80		
Local business development	80	90		
Revenue accruing to public authorities	70	80		

Significant Ratings:

	Positive	40 – 74	Medium Negative	[illegible]	[illegible]
<40	Low Negative	75 – 99	Medium-High Negative	125 – 150	Very High Negative

Potential positive and prescribed impacts

A number of benefits are associated with the proposed Stellenbosch Bridge development:

1. **Job creation:** The findings of the employment analysis are considered in the context of Application 1 and Application 2, both of which are phased over 4 years and envisaged to run in parallel. Application 1 of the Stellenbosch Bridge development could sustain on average 1 090 to 1 199 jobs per annum over 4 years of the construction period. If employment is considered at the Stellenbosch Municipal level, 1 023 to 1 125 jobs will be created in the Stellenbosch Municipal area per annum over 4 years envisaged for the construction. For Application 2, an average of 1 439 to 1 583 jobs opportunities per annum could be sustained per annum over 4 years of the construction period. Alternatively, Application 2 could sustain 1 352 to 1 487 jobs per annum in the Stellenbosch Municipal Area over 4 years.

   During operations, an estimated total of 1 090 direct jobs opportunities will exist once the planned construction of components envisaged for Application 1 is complete. Most opportunities will exist for retail, commercial and to an extent the housing component of the project. Application 2 entails industrial activity. An estimated 1 900 job opportunities could arise from the development of and provision for 90 500 m² of Gross lettable Area. These figures do not include additional employment (indirect and induced employment) created by the needs of the operating components and outsourcing opportunities.

2. **Economic income:** A combined initial investment of R1 204 million (R963 million net of the initial import leakage) for Application 1 will give rise to a multiplied output increase in GVA of R4 192 million in the Western Cape Province over the four-year construction period. Approximately R628 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. For Application 2, a combined initial investment of R1 486 million (R1 188 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R4 101 million in the Western Cape Province over the construction period. In addition, approximately R 614 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project.

3. **Revenue accruing to public authorities:** The total cumulative rates over the first 10 years from the commencement of construction and occupation of the different components is estimated at R62.9 million. The total cumulative rates over the first 10 years from the commencement of construction of the industrial components is estimated at R128.9 million.

4. **New business development:** A mix of residential and various commercial activities are envisaged as part of Application 1, including offices, a restaurant, gym, laundromat and spa in Precinct 2, and Business, Institutional, Education, Medical, Residential, Sport & Recreation, Tourism, Utility Service, Research & Development in Precinct 1. Commercial activities are essential for serving the needs of a community and create demand for other businesses operating in the immediate and surrounding area. Application 2 entails light industrial activity and related uses that would include a mix of warehousing, light manufacturing and other related

business and service activities. These activities will require a range of goods and services that could be provided by existing and or new businesses operating in the Stellenbosch and/or Drakenstein Municipalities.

Potential negative impacts

The following **concerns** (medium or higher impact after mitigation) have been identified:

1. **Impact on traffic flows:** A significant increase in traffic along the access routes can be expected during construction and operations, which will negatively impact surrounding land-users in particular
2. **Sense of place:** The relatively high-density development will be visible to a large number of receptors and may negatively affect surrounding land users.
3. **Nuisance factors,** in particular dust and noise generated during the introduction of services and construction of top structures;
4. **An influx of job-seekers** during the construction phase could result in additional people settling in Klapmuts and a subsequent burden on local social services.

Cumulative impacts

Cumulative impacts refer to any other additional development(s) as well as existing activities within the immediate area that could compound any positive or negative impacts associated with the proposed development. This particularly relates to the ongoing/planned residential developments just north of Klapmuts and along the R44 south-east of Klapmuts.

The potential negative impacts would be compounded if additional developments were introduced in the immediate and surrounding areas. These impacts would typically relate to sense of place, traffic, infrastructure requirements, crime and nuisance factors. However, a number of developments in the Klapmuts area could also compound employment and economic income benefits.

Mitigation measures

Many of the negative socio-economic impacts that were identified (summarised below) could be mitigated by introducing the measures proposed by various specialists that must be considered as requirements for approval of the development. Monitoring of specifically the social impact and assessing the outcomes over time would further enhance the social and economic fabric within the development and the surrounding communities.

Summary of mitigation measures suggested for the different impacts:

Impact	Mitigation measures
	Construction phase
Large construction vehicular traffic	The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations. These improvements should also ease the traffic flows during the estimated 5-year construction phase.
Nuisance factors (dust and noise)	Dust and noise emissions during the construction period should be minimised by employing a Construction Environmental Management Plan (CEMP).
Influx of job-seekers	Contractors need to show a commitment to employ people from the Stellenbosch and Drakenstein Municipalities whenever possible.

Impact	Mitigation measures
Increase in local crime	Co-operation between the Developer and contractors and on-site security measures, such as perimeter fencing, controlled access and security guards and patrols will minimise the risk.
	Operational phase
Sense of place – surrounding land-users	Mitigation measures were proposed in the Visual Impact Assessments and Heritage Impact Assessment and should be implemented by the Developers
Surrounding property values: Existing residential erven	Implementation of the recommendations made by the various specialists to mitigate potential negative impacts (such as visual, traffic and nuisance factors) will be essential to minimise negative impacts for surrounding landowners.
Increased vehicular traffic	The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations.
Increase in local crime	Local residents must be employed to reduce the level of unemployment in the Klapmuts area. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols could also discourage criminals from the area.
Bulk infrastructure capacity	Recommendations were made in the Civil Engineering Services Report to ensure the appropriate infrastructure for the various bulk services is provided by the Developer.

Recommendations

The following **recommendations with specific reference to the socio-economic context** are proposed to address various matters related to Application 1 and 2 of the Stellenbosch Bridge development. The mitigation measures proposed in the following table should be consolidated as part of an Implementation Plan for Application 1 and 2.

Phase	Mitigation measures
Pre-construction	**Procurement Strategy** that includes the following and applies to the Stellenbosch Bridge development: (a) Conduct a skills audit among the local Klapmuts residents, especially the unemployed to ascertain their ability and skills to accept employment during the construction phase ; (b) Initiate the activity for both Application 1 and 2; (c) Strategy is the responsibility of the contractor(s) collectively under the guidance of Stellenbosch Bridge; (d) Focus on opportunities for local labour in the surrounding areas and businesses as a priority. Contractors are required to provide an indication of the geographical location of sub-contractors (businesses) and local labour they intend to use or employ on the project throughout the construction phase; and (e) Local contractors in the Stellenbosch and Drakenstein areas be invited to tender for work in the context of the terms and conditions included in RFP documentation.
Pre-construction & Construction	**Communication Protocols** that address directly and indirectly affected residents and surrounding landowners, with specific reference to activities, timelines and intended impacts related to the

Phase	Mitigation measures
	construction phase and all related activities associated with the implementation of the project (i.e. during the operational phase). **Objectives** • To orientate, generate awareness and gain positive attitudes among stakeholders as far as possible; and • To engage and inform stakeholders of progress regarding all phases of construction. **Target audience** • Property owners and users of the land portions directly surrounding the proposed activity; and • Other stakeholders and property owners that may be affected. **Major types of messages** • Inform directly affected residents on the periphery of the site earmarked for the project others that would frequent the area; • Commencement date for construction activities related to the project; • Duration and extent of the construction activities and where applicable, with an emphasis on individual activities; • Progress updates, including any delays with a construction-related activity; and • Ensure appropriate signage is introduced to warn persons frequenting the area, those residing adjacent to the development area.
Operations	Develop a mechanism for business opportunities within the development that will assist to balance larger and smaller business interests in terms of service provision and creating a socially sustainable community.
Pre-construction and Construction	The **Protocol for Social Management (PSM)** is a working framework document that identifies key measurement indicators and sets out the procedures for tracking, monitoring, calculating and verifying the impacts associated with the project. This PSM must be used for the planning and establishment of Applications 1 and 2. Adherence to a PSM framework is necessary for the successful measurement and tracking of the impacts associated with the development during the construction phases of Applications 1 and 2. The PSM framework should be developed into an action plan that will be prepared in terms of the conventions indicated in Section 8 of the Report.

Impact statement

The Stellenbosch Bridge Development with specific reference to Applications 1 and 2 in the Klapmuts area of the Stellenbosch Municipality, is supported on condition that the recommendations/mitigation measures included in this report, are implemented. In addition, the recommended enhancement and mitigation measures contained in other specialist reports and those required to support mitigation of several impacts identified and assessed in the Socio-economic Impact Assessment report, should be implemented.

The Protocol for Social Management (PSM) must be used for the planning and establishment of the project before and during the construction phase. Adherence to a Social Management Protocol framework is necessary to establish a vibrant and sustainable Klapmuts community and for the successful implementation and management thereof during construction.

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1. BACKGROUND

1.1 Introduction

Klapmuts is a small rural village adjacent to the N1 Freeway, approximately 15 km from the City of Cape Town's western urban edge, 16 km from Stellenbosch and 14 km from Paarl. Klapmuts falls under the jurisdiction of the Stellenbosch Municipality, but bordering on the Drakenstein Municipality. Given the strategic location of Klapmuts, the farm portions surrounding the town have been under pressure for development for several years, despite challenges regarding engineering service capacity. In 2008, the approval of the amendment of the Structure Plan and the Klapmuts Spatial Development Framework (SDF) paved the way for a more development friendly-environment with surrounding farm portions.

In response to the requirement for new development, Stellenbosch Wine and Country (Pty) Ltd conceived the Klapmuts Hills project as a residential development with a commercial and community component. The proposed project on Erf 742/3 and 742, Paarl, covered 73 ha of which 10 ha outside the urban edge was earmarked for open space and a tourism facility of 1 000 m². The property is located within 1 500 m of the centre of Klapmuts town and off the Old Paarl Road in the direction of Muldersvlei. The components of the Klapmuts Hills development included the following core and auxiliary components:

- **Estate housing,** with 1 577 units sub-divided into four phases with single residential, group housing and flats;
- **Retail component,** comprising a large and small retail centre of 4 000 m² and 1 000 m² gross lettable floor area, respectively;
- **Other lettable area,** which includes three areas of 4 000 m², 2 900 m² and 10 600 m² earmarked for Phases A, B and C, respectively; and
- **Infrastructure,** which includes the required roads, services and landscaping.

On 22 November 2011, the Stellenbosch Municipality approved the Klapmuts Hills development, which included the Development Framework, rezoning, subdivision and departures to permit urban development on this site within an approved Basket of Rights (1 577 residential units and a GLA of 23 200m² for retail and associated services and facilities). Due to unfavourable market conditions, the implementation of the project was never activated. The delays resulted in extensions for the Environmental Authorisation and land use rights being submitted and approved on 18 September 2017; the existing development rights will lapse on 22 November 2021. The time-lapse also allowed the re-imagination of the Klapmuts Hills development as an innovation precinct that will attract local and international innovation stakeholders to locate in a mixed-use live, work, play and innovate environment. The development was renamed as Stellenbosch Bridge and includes the original Klapmuts Hills site as well as several land units west of Klapmuts.

A 'Package of Plans' approach was adopted for a tiered planning process that provides a mechanism to plan and manage the development by facilitating the phased roll-out of a basket of rights over an extended period (Anton Lotz Town Planning & ARoux Town Planning, 2019a). This approach provides greater flexibility to accommodate the different phases of the complex development proposal and allows for a phased process of negotiation, planning and approvals, whereby increasing detail is provided for each following step of development. The Development Framework for the entire Stellenbosch Bridge development site will be submitted in due course. Separate applications for the next phases of the Package of Plans, including approval of the Precinct, Subdivision and Site Development plans, will be submitted following approval of the Development Framework and land use applications. Once a Development Framework Plan is approved for the entire Stellenbosch Bridge site, it will replace the Development Framework approved for the Klapmuts Hills site.

Four applications are planned (also refer to **Figure 1**):

- **Application 1:** Reallocation of the existing rights approved for Farm 742/5 for the redevelopment of the site as part of the innovation precinct and in terms of the service capacities already provided for. The application will involve amendment of the approved Development Framework Plan, Phasing Plan, Subdivision Plan and

conditions of approval to accommodate the revised development layout plan. The revised development plan will tie in with the draft Stellenbosch Bridge Development Framework that will be submitted as part of Application 3;

- **Application 2:** Rezoning and Subdivision of Farm 744/2, which has been part of the Klapmuts urban edge since before 2001;
- **Application 3:** Densification on Farm 742/5 in terms of a Development Framework with supporting documentation and plans for the Stellenbosch Bridge Innovation Precinct;
- **Application 4:** Development Rights for land included in the urban edge in terms of the 2019 Stellenbosch MSDF.

A large portion of the development site has recently been included in the Klapmuts urban edge and will require additional environmental approvals and several specialist studies. However, the existing land-use approval for Portion 5 of Farm 742 (previously registered as Portion 3 and the Remainder of Farm 742, Paarl) presents an opportunity for these development rights to be utilised as a first phase of the Stellenbosch Bridge development project. To allow development to commence on the site and being aligned with the overall draft Development Framework for the Stellenbosch Bridge development, an amended Development Framework for this site has been prepared. **This SIA therefore only addresses the potential impacts related to Application 1 (Phase 1, approval of the amended Development Framework Plan for Portion 5 of Farm 742, Paarl) and Application 2 (Phase 2, rezoning and subdivision of Remainder Farm 744/2, Paarl.**

Dr Jonathan Bloom of Multi-Purpose Business Solutions was commissioned as an independent consultant to prepare a Socio-Economic Impact Assessment of the proposed Stellenbosch Bridge development. Jonathan Bloom (PhD, Corporate Finance) is the managing member of Multi-Purpose Business Solutions and until 2013, a professor of real estate at Stellenbosch University. He has conducted more than 75 socio-economic impact assessments as an independent consultant for real estate and other developments throughout South and Southern Africa. Jonathan has research skills in the design and implementation of research projects from both a qualitative and quantitative perspective. He majored in statistics and business economics and his background in statistical modelling of economic aspects related to projects and cost-benefit assessments has been used to assist clients with the assessment of socio-economic impacts associated with projects. Refer to Annexure E for a declaration that confirms the independence of Dr Bloom, as well as Annexure F for a copy of his CV.

1.2 Terms of Reference

The objectives of the socio-economic impact study are as follows:

- To offer a perspective of the Stellenbosch Municipal economy with a specific emphasis on the town of Stellenbosch;
- To comment on the viability and financial feasibility of the proposed project;
- To assess the fit (compatibility) of the proposed project with spatial planning from an economic perspective;
- To provide a socio-demographic and –economic profile of the population, based on specified concentric zones at distances of 3 km and 6 km from the centre of the site proposed for development;
- To include socio-economic comments received from interested and affected parties that participate in the EIA process and where applicable, with key persons in the Klapmuts area that represent key stakeholder groups and partook in the EIA process;
- To ascertain the overall direct and indirect/induced monetary benefits, i.e. direct GGP (Gross Geographic Product) and job creation potential on the economies of Stellenbosch Municipality, the Western Cape Province and South Africa;
- To state and discuss potential externalities and impacts relevant to the development project from a social perspective;
- To consider social investment initiatives to support the local community through the introduction of the project; and
- To propose a monitoring and evaluation framework to assess the socio-economic impacts.

1.3 Approach & Methodology

In keeping with the *Guideline for Involving Economic Assessment Specialists in EIA Processes* (CSIR, 2005) and the *Guideline for Involving Social Assessment Specialists in EIA Processes* (Department of Environmental Affairs and Development Planning, 2007), the project should fit with planning frameworks and be desirable from a societal cost-benefit perspective (concerning the assessment of social impacts). The *Need and Desirability Guidelines* (Republic of South Africa, 2014) are also applicable with specific reference to the economic and social justification for the development proposed in the specific location. In addition, adherence to Appendix 6 of the NEMA Regulations and alignment with existing guidelines are essential (Annexure D).

Our approach for assessing the socio-economic impacts of the proposed development is presented in **Figure 1**. The illustration shows that an assessment of the financial feasibility and long-term viability of a project is an essential point of departure as long-term positive economic impacts can only flow from a project that is financially sustainable or viable. It must also fit and demonstrate compatibility with economic and integrated planning for the area, which also covers spatial planning. These hurdles are a critical aspect of economic desirability, which ensures that the proposed development compliments economic planning as reflected in spatial development planning and the local economic development plans and strategies for the area.

Given the nature of the proposed activities and the importance of the project for direct investment in the Cape Winelands District Municipality (CWDM), monitoring and evaluation throughout construction and operations are essential. Both the envisaged positive and potential negative impacts need to be monitored through an inclusive and credible process, for which a broad framework is outlined in this report.

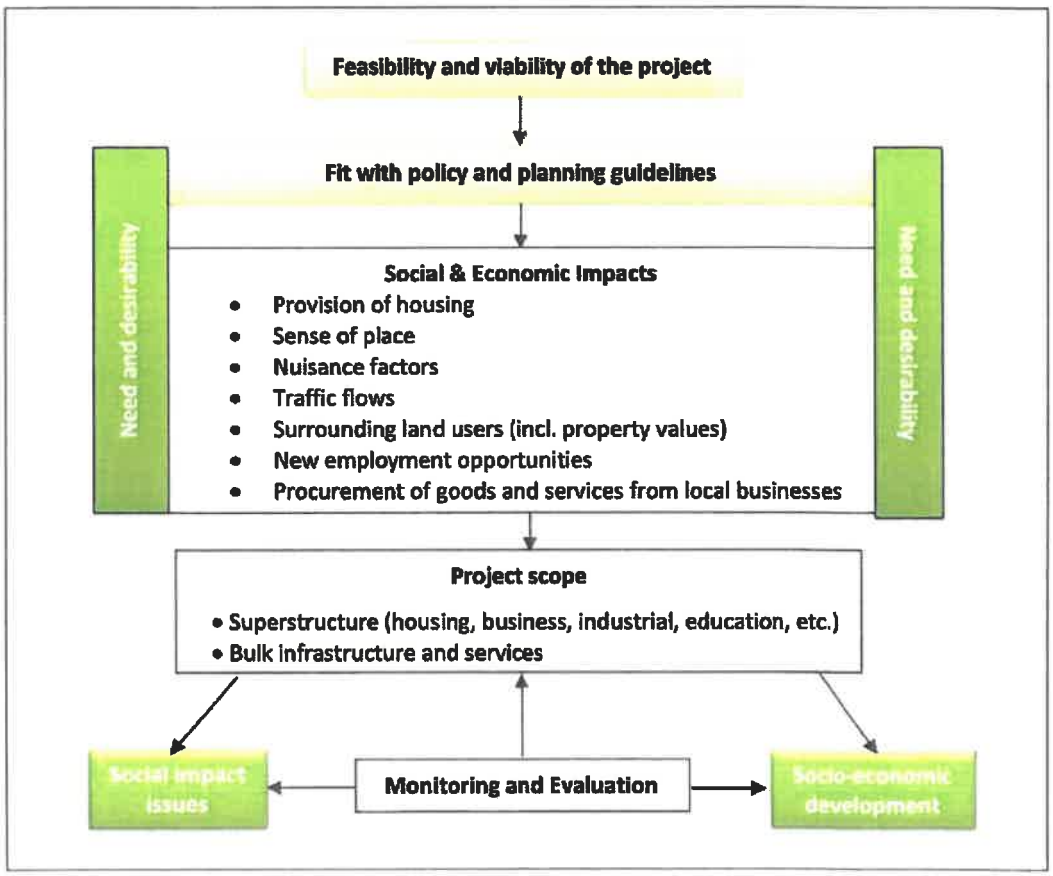


Figure 1: **An illustration of the methodology used to provide specialist socio-economic input for the Environmental Impact Assessment process.**

Source: Multi-Purpose Business Solutions

1.3.1 Data gathering and analysis

The analysis of primary inputs includes information collected from personal or telephonic interviews with representatives of stakeholder groups that are affected directly or indirectly by the proposed development (see Annexure A for a list of persons consulted during the primary research phase). This is supplemented by secondary sources (including reports and publications) that were consulted to inform the findings of the independent socio-economic assessment and to complement the primary research. Any comments from Interested and Affected Parties in response to our request for comments or from participants in the official EIA process will be included in an update of the Socio-economic Impact Assessment.

The study area for the socio-economic impact assessment is determined by the specification of concentric zones that are referenced as all sub-places (communities) within 3 km and 6 km from the site proposed for development. Also refer to the socio-demographic and -economic analysis in Section 5 for a detailed description of the communities.

1.3.2 Impact assessment

The proposed project would have both qualitative and quantitative impacts (benefits and costs) on the socio-economic fabric of the area. We have considered the quantitative economic impact, i.e. positive and negative consequences, for the core project and analysed the socio-economic impact. Where applicable, a qualitative assessment of both benefits and costs is also provided from a social perspective. The different impacts are assessed using the impact rating methodology indicated in Annexure B.

As per NEMA EIA Regulations (2014, as amended), the potential impacts of the preferred development plan (Alternative 1) are assessed and compared with the No-Go Alternative for each of the Applications:

- **Application 1:**
  - **Alternative 1** - Reallocation of existing rights on Portion 1 (73 ha), 1577 residential + 3 450 m² bulk and 24 550 m² bulk (Commercial, Education & Other)
  - **No-Go Alternative**, which implies that the *status quo* is maintained
- **Application 2:**
  - **Alternative 1** - Rezoning & Subdivision of Portion 2 (22 ha), Light Industrial (94 000 m² bulk)
  - **No-Go Alternative**, which implies that the *status quo* is maintained
- **Application 3:**
  - **Alternative 1** - Densification on Farm 742/5 (2 500 apartments, 150 000 m² bulk)
  - **No-Go Alternative**, which implies that the *status quo* is maintained
- **Application 4:**
  - **Alternative 1** - Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106 ha)
  - **No-Go Alternative**, which implies that the *status quo* is maintained.

1.4 Assumptions

- To determine a realistic socio-demographic and economic profile of the population most likely to be affected by the proposed development, radii of 3 km and 6 km from the centre point of the proposed Stellenbosch Bridge development was used based on our observations of population distribution, economic activities and likely sources of procurement and labour in the areas surrounding the proposed development.
- The following assumptions were used for calculations related to employment and economic income:

- Productivity stays constant and the additional labour demand follows the long-term linear trend of employment per Rand Million of Gross Value Added considered from 1995;
- Labour productivity increases per annum and labour demand thus increases by 0.90 using the annual linear trend;
- Labour demand is forced to increase by 1.1 above the long-term trend, which is caused by external influences;
- Only total labour demand is considered; no race, gender or skill level is considered; and
- An assumed import leakage of 20% for construction.

1.5 Limitations

Several limitations were identified during the study:

- Changes in methodology complicate comparisons between the 2011 and previous census years, i.e. 2001, with specific reference to an analysis of employment by economic sector and occupation. No data is available to assess sector employment and occupation levels for 2011.
- A comparison between the population figures for 2001 (Census), 2007 (Community Survey) and the Census 2011 Survey is not possible due to the limitations of selecting a sample that is extrapolated to the population as was done for the Community Survey (2007). A significantly larger margin of error would be prevalent when adopting a sample approach vs. a census (which is intended to cover the entire population and not a selected sample). Different categories were considered for various demographic items in the Census 2011 survey, which hampers any form of comparative assessment.
- The economic analysis focuses up to the period including 2018; a lag exists in economic data and therefore the most recent data for 2019 is unavailable.
- The most recent employment data for 2011 was available, but due to the reclassification of employment categories in the 2011 Census, no comparative assessment is possible with the 2007 Community Survey 2007 and 2001 Census Survey. In addition, the data provided in terms of reports prepared by Statistics SA and the data extracted from a detailed assessment of enumeration areas and sub-places do not correspond or are missing. An example of such data is the unemployment numbers for the CWDM.
- Given the lack of detailed information on the commercial components of the proposed development, it is not possible to quantify the potential contribution towards the local economy once all the envisaged components of the development with specific reference to commercial activity are complete and operating.

1.6 Structure of the report

The report includes the following sections:

1: An introduction to the study, a description of the study area and the proposed project, and an outline of the approach to the study;

2. Perspective and overview of the Stellenbosch Municipal and CWDM economies;

3. Comment on the financial feasibility of the project and an assessment of the fit (compatibility) of the proposed project with planning from an economic perspective;

4. Socio-economic and -demographic profile of the population likely to be affected by the development using concentric zones of 3 km and 6 km from the centroid of the site;

5. Perceptions and concerns of key stakeholder groups towards the proposed development;

6. Assessment of the qualitative impact of the project on surrounding land users, externalities (social impacts), and infrastructure capacity, and ascertain the overall direct monetary benefits in terms of Gross Value Added

(GVA) and employment on the local CMA economy and the Western Cape Province economies during construction and operations; and

7. Derive key conclusions and recommendations, with the latter referring specifically to measures required to mitigate economic and social impacts.

2. STELLENBOSCH BRIDGE MASTERPLAN

2.1 Introduction

2.1.1 Location

The site proposed for the Stellenbosch Bridge development is strategically positioned alongside the N1, between Cape Town and Paarl, within the Stellenbosch Municipal area. The site is located to the west of the Klapmuts village at the foot of Klapmutskop. The location is predominantly rural, with surrounding farms such as Muldersvlei and Elsenburg south of the site containing mainly vineyards with limited cultivation of fruit and the keeping of livestock. The landscape offers views over the agricultural landscape and Klapmutskop, as well as the surrounding mountains. Tree lanes, windbreaks, and homesteads add to the aesthetic appeal of the setting.

The site is located within 20 min of the Cape Town International Airport, 20 min of the Northern Suburbs of Cape Town, 30 min of the Cape Town CBD, 10 min of Paarl and 15 min of Stellenbosch. Located on the N1 transport corridor – which carries 93% of metropolitan bound freight traffic – Klapmuts is a potentially significant centre for economic activity and residence within the metropolitan region and Stellenbosch Municipality (Stellenbosch Municipality, 2019b). Klapmuts consists primarily of low-income and state-assisted housing, with middle-income residential opportunities between the railway line and the N1 freeway. Several retail and light industrial/distribution opportunities exist along the Old Paarl Road and the R44, with the existing retail along the Old Paarl Road that is developing into a village centre. To date, the settlement is characterized by residential use and limited commercial and work-related activity. Public sector resource constraints have prevented the infrastructure investment required to enable and unlock the full potential of the area for private-sector economic development.

2.1.2 Surrounding land uses

According to the Klapmuts Special Development Area – Status Quo Report (BEAL Africa, 2017), the Klapmuts land use as per the draft Stellenbosch Zoning Scheme (2012) included 2 071 residential, 15 business and 21 industrial properties, as well as 122 farmland and related properties. Community-related land use included a police station, primary school, Safe House, Community service, Crèche and three churches. The results show that most of the land in the study area are categorised as "Agricultural", of which 71% (5 043 ha) is cultivated in some form or the other. Comparatively, residential uses have the highest number of land parcels with about 91% with single dwelling homes. There were an estimated 237 hectares of vacant land, mostly located in and around the Klapmuts urban area.

New urban development is concentrated in the town proper of Klapmuts; a local shopping centre has sprung up along Klapmuts Old Main Road and an upper medium-income gated housing development was established at **Rozenmeer** (BEAL Africa, 2017). Warehousing is being developed at a newly established industrial township south of the town along the R44 road (Simonsberg Business Park), while lower-**middle-income housing** was developed on Erf 2119 and Erf 2120, Klapmuts, west of the industrial township. Klapmuts has seen significant growth in subsidised public housing with more than 500 additional housing units developed along its southern edge. Furthermore, limited tourist uses, such as wine cellars offering wine-tasting and guest accommodation, and other uses associated with the wine industry operate in the surrounding rural-agricultural area.

An assessment of recently approved land use applications (BEAL Africa, 2017) indicated a push towards urban development on agricultural land outside Klapmuts' urban edge (**Figure 2**). These are primarily gated or lifestyle housing estates particularly to the east and southeast of Klapmuts on Portions 30, 33 and 41 of Farm Bronkhorst No. 748, Paarl. Three applications for township establishment by rezoning to subdivisional area, dating back to 2003 and 2014, were approved and allow for about 295 new housing units. The single most significant township development was approved on Portion 7 of the Farm **Groenfontein** Annex No. 716 Paarl, north of Klapmuts town, adjacent to Rozenmeer along the N1 highway. Around 518 new housing units were approved and includes a frail care centre, a retirement village, flats and townhouses. An application for township establishment was also approved on Portion 41 of the Farm Bronkhorst No. 748 Paarl (**Anura Lifestyle Estate**) for ±154 new housing units on 29 August 2013. A newly revised application has, however, been submitted and seeks to amend the urban edge to include the proposed development. The adjacent farm portion, also known as **Mount Vernon** (Portion 40 of Farm Bronkhorst No 748, Paarl)

is also the subject of an urban edge amendment application that would allow for the development of ±150 new housing units.
In the town of Klapmuts, the subdivision and rezoning of Erf 2181 is being considered (BEAL Africa, 2017). Its approval would allow the formalisation of the existing informal housing, which has an approximate yield of 298 informal subsidised housing land units. Current land use applications under consideration for approval amounts to a total of ±800 new housing units. The most significant is the Braemar Farm Development on Portion 2 of the Farm Klapmuts River No. 742, Paarl, which provides for 354 residential land units, 1 institutional land unit, 1 industrial land unit, and roads.

Distell Limited has decided to relocate to and consolidate many of its operations in Klapmuts, which include the development of a beverage production, bottling, warehousing and distribution facility on Paarl Farm 736/RE, located north of the N1, consolidating certain existing cellars, processing plants and distribution centres in the Greater Cape Town area (Stellenbosch Municipality, 2019b). The beverage production, bottling, warehousing and distribution facility will take up approximately 53 ha of the 200 ha farm. The project proposal includes commercial and mixed-use development on the remainder of the site (which is not environmentally sensitive) to provide opportunities both for Distell's suppliers to co-locate and for other business development in the Klapmuts North area.

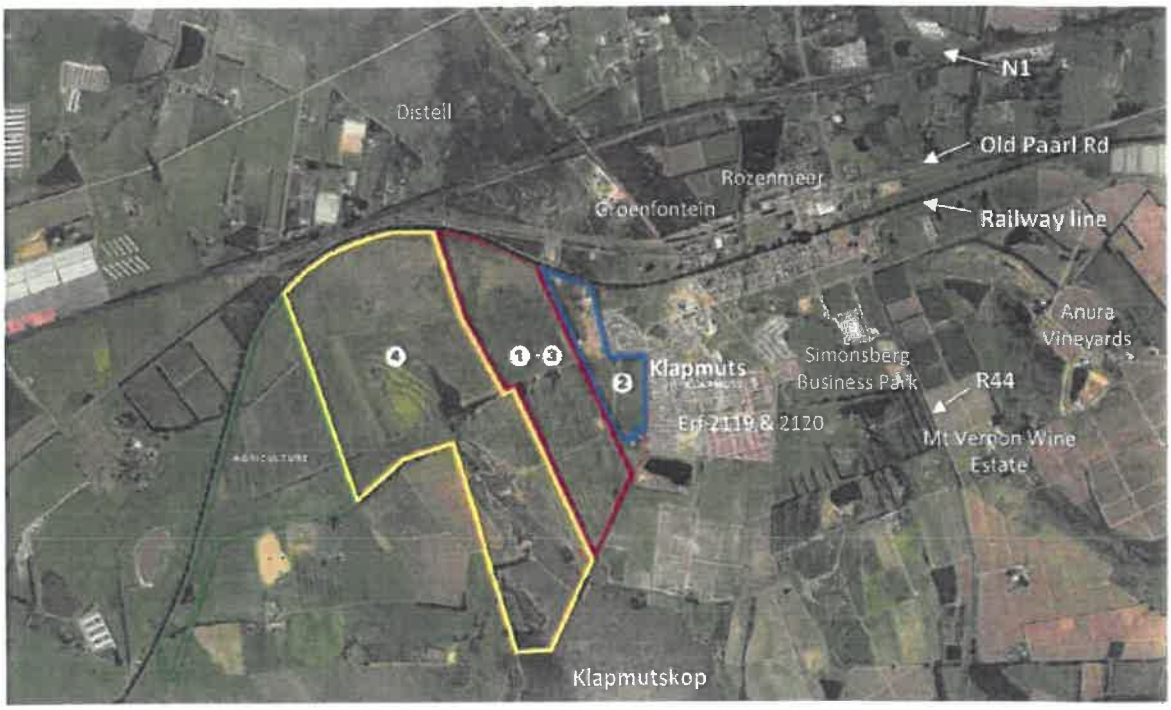


Figure 2: **Stellenbosch Bridge Development Site, the different land portions included in the Development Plan and surrounding land users.**
Source: Anton Lotz Town Planning & ARoux Town Planning, 2019a

2.1.3 Stellenbosch Bridge Package of Plans

The site entails 274 ha, of which 204 ha are included in the Klapmuts Urban Edge (Portions 1-4 in **Figure 2**). The proposed Master Development Plan for Stellenbosch bridge includes 2 500 residential units, Light Industrial (94 000 m² bulk) and Mixed-use (150 000 m² bulk). The owners intend to phase the development of this property, fully integrated into the larger Stellenbosch spatial vision and in partnership with various stakeholders, including Stellenbosch Municipality, Stellenbosch University, the Klapmuts community and the Western Cape Government. To this end, the owners recently donated 30 ha of the property to Stellenbosch University to provide space to (amongst others) Innovus, the commercialization arm of the University, which allowed the institution to become a key partner. The intention is that Stellenbosch Bridge will enhance business development and innovation through clustering and

co-location of fast-growing sectors and public and private research establishments from South Africa, Africa and the rest of the World.
The proposed development is made up of several precincts (**Figure 3 & 4**), with the innovation precinct at the heart of the development where entrepreneurs, researchers, academics and corporates will connect to develop and incubate new products and services for fast-growing and promising industry clusters. The precinct will have a mixed-use character providing for all aspects of a live-work-play environment designed around significant public spaces. Linked to the innovation precinct are business hubs, green and smart industry precincts, dedicated living spaces, a transportation node, as well as retail and logistic precincts all integrated by a network of green spaces to connect its citizens and communities (Anton Lotz Town Planning & ARoux Town Planning, 2019a).

The Development Framework Plan for Stellenbosch Bridge has largely been finalised, but a large portion of the development site has only recently been included inside the approved Klapmuts urban edge and is therefore subject to additional environmental approvals and specialist studies (including a traffic study, services report, visual impact study, etc. – all of which are currently in process). The Stellenbosch Bridge Development Framework Plan for the entire site can therefore not yet be approved. In the meantime, the existing land use approval for Portion 5 of Farm 742, Paarl, presents an opportunity for these development rights to be utilised as a first phase of the Stellenbosch Bridge development project (Anton Lotz Town Planning & ARoux Town Planning, 2019a).

Four different applications are foreseen for the development, summarised in **Table 1** with a breakdown provided in **Table 2**.

Table 1: Summary of units or bulk areas (m²) earmarked for the different applications

APPLICATION	SITE	RESIDENTIAL	NON-RESIDENTIAL USES (FLOOR AREA)				
		UNITS	BUSINESS	INDUSTRIAL	INSTITUTIONAL	OTHER	NON-RES TOTAL
Application 1 (Precincts A1, A3 & B1)	Farm 742/5	1 577	28 000				28 000
Application 2 (Precincts C & D)	Farm 744/2			90 500			90 500
Application 3 (Precincts A1, A3 & B1)	Farm 742/5	1 423	159 000	40 000	50 000	3 500	252 500
Application 4 (Precincts A2, A4, A5 & B2)	Farm 742/5 & 1515	3 000	108 000	63 000	118 000	20 000	309 000
SUB-TOTAL		**6 000**	**295 000**	**193 500**	**168 000**	**23 500**	**680 000**
TOTAL		**6 000**					**680 000**

Table 2: Breakdown of different land-use categories earmarked for the four Stellenbosch Bridge applications

LAND USE CATEGORY	CODE	APPLICATION 1	APPLICATION 2	APPLICATION 3	APPLICATION 4	TOTAL
RESIDENTIAL	200					
Single Dwelling Units	210					-
Apartments and Flats	220	1 377		1 423	2 300	5 100
Student Apartments and Flats	225					-
Group housing/Townhouses	231	200			200	400
Retirement Village	251				500	500
TOTAL UNITS		**1 577**	**-**	**1 423**	**3 000**	**6 000**
BUSINESS						
Office	710	22 000		110 000	80 000	212 000
Retail	800	5 500		20 000	15 500	41 000
Shopping Centre	820			12 000		12 000
Restaurant & Coffee Shop	932	500		14 500	10 000	25 000
Place of Entertainment - theatre, cinema				2 500	2 500	5 000
Sub-Total (Floor Area - m²)		**28 000**	**-**	**159 000**	**108 000**	**295 000**
INDUSTRIAL	100					
Service Industry (for public)	110		5 500	10 000	10 000	25 500
Manufacturing	140		25 000	10 000	15 000	50 000
Warehousing and Distribution	150		25 000	10 000	10 000	45 000
Mini-warehousing - storage	152		10 000	10 000	3 000	23 000
Data Centre			25 000		25 000	50 000
Sub-Total (Floor Area - m²)		**-**	**90 500**	**40 000**	**63 000**	**193 500**
INSTITUTIONAL	500					
Private school	536				28 000	28 000
University/College	550			12 800	44 200	57 000
Research and Development - labs, incubators				28 500	23 800	52 300
Training Centre				500		500
Place of Assembly/Community Facilities				4 000	4 000	8 000
Place of Worship	560			1 000	2 000	3 000
Pre-School/Daycare	565			500	1 000	1 500
Private Hospital	612				15 000	15 000
Medical Consulting Rooms	720			2 000		2 000
Medical Clinic	630			700		700
Sub-Total (Floor Area - m²)		**-**	**-**	**50 000**	**118 000**	**168 000**
OTHER						
Hotel	310				4 000	4 000
Guest House/Tourist Accommodation	350			500	1 000	1 500
Sport Stadium & Indoor Sport	488			3 000	2 000	5 000
Health and Fitness	492				3 000	3 000
Conference Centre	780				10 000	10 000
Sub-Total (Floor Area - m²)		**-**	**-**	**3 500**	**20 000**	**23 500**
TOTAL (Floor Area - m²)		**28 000**	**90 500**	**252 500**	**309 000**	**680 000**

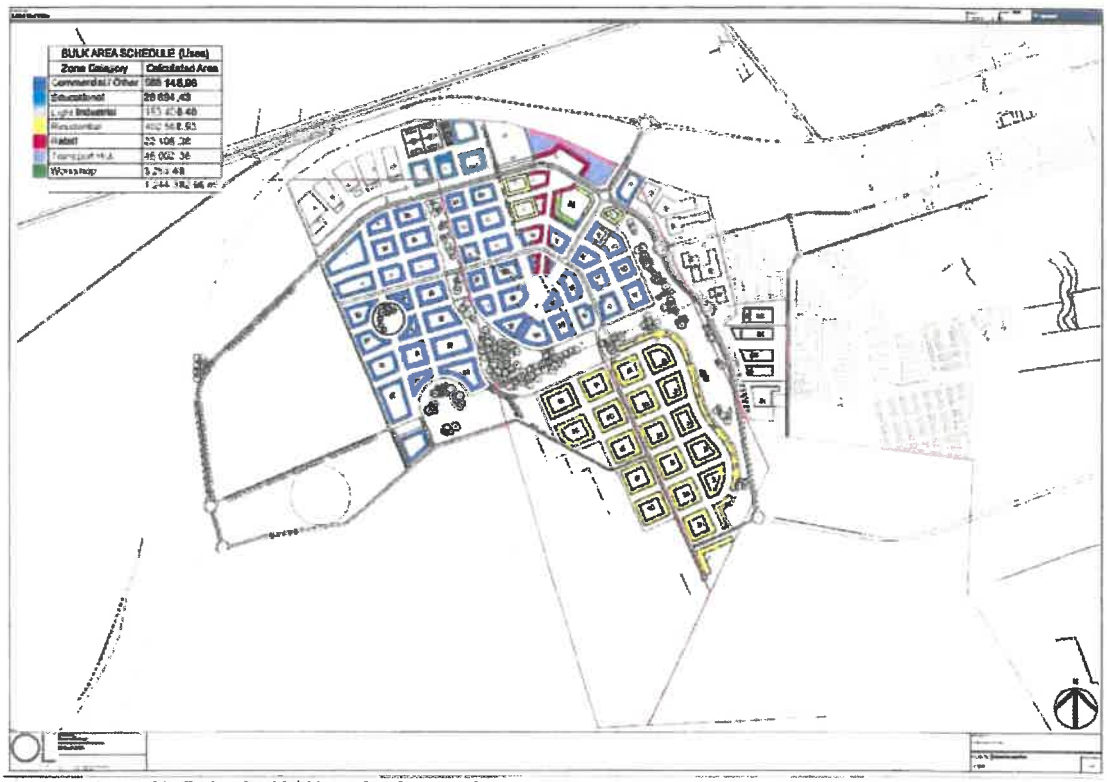


Figure 3: Proposed Stellenbosch Bridge Master Development Plan.
Source: Stellenbosch Bridge (Pty) Ltd., 2020

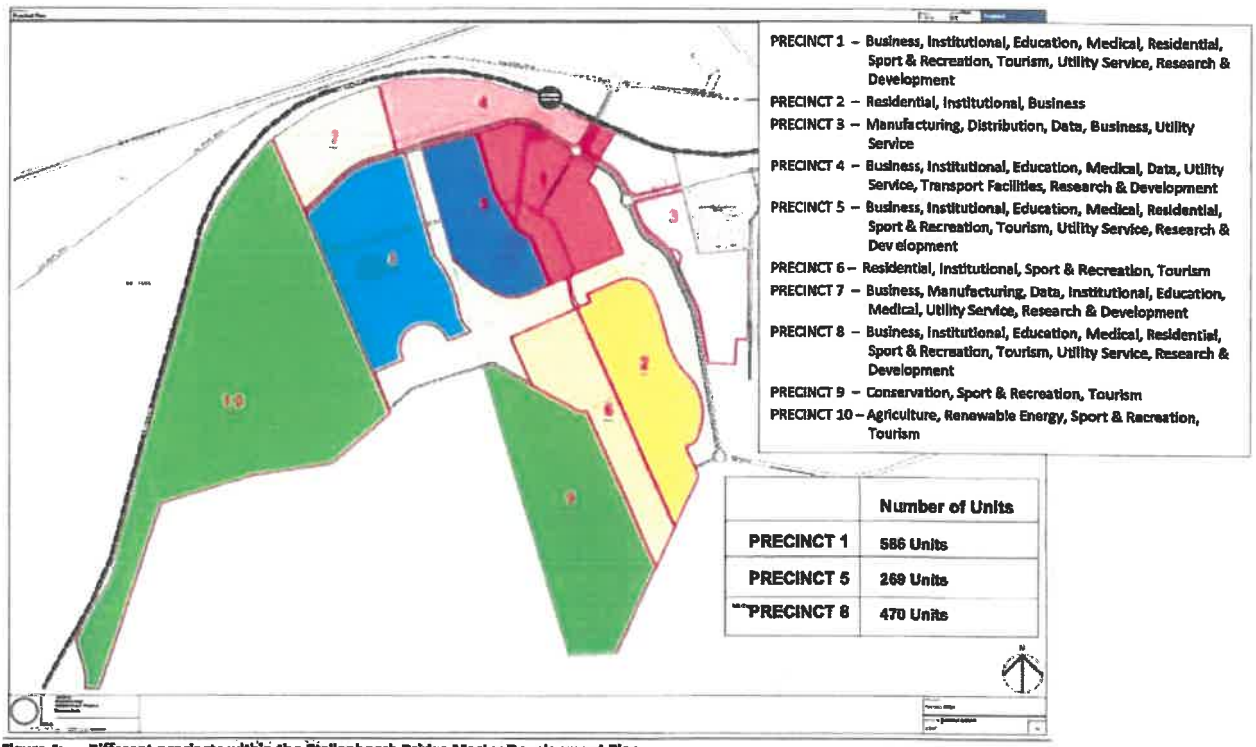


Figure 4: Different precincts within the Stellenbosch Bridge Master Development Plan.
Source: Stellenbosch Bridge (Pty) Ltd., 2020

2.2 Application 1: Reallocation of existing rights on Portion 1

The property earmarked for Application 1 (highlighted in **Figure 5**) is officially registered as Portion 5 of Farm 742, Paarl, owned by Stellenbosch Bridge Properties (Pty) Ltd. A land-use approval was granted by the Stellenbosch Municipality in 2011 to permit urban development for 1 577 residential units, together with a GLA of 28 000 m² for various business uses. The property contains a pipeline servitude that crosses the site in an east-west direction; the servitude will be accommodated within the future development layout.

Figure 5: The location of the Stellenbosch Bridge Application 1 site (indicated with a red border)
Source: Google Maps (2019)

To utilise the existing land-use rights for the site, a revised Development Framework Plan has been prepared that re-allocates the approved rights to align with the draft Development Framework for the larger Stellenbosch Bridge development (which include the adjacent land units). The latter will ultimately include more intensified development on the site that exceeds the current basket of rights approved for the site, but the proposed amended Development Framework (Application 1) constitutes the development of only the existing Basket of Rights, i.e. no additional rights are being applied for (Anton Lotz Town Planning & A Roux Town Planning, 2019a).

The proposed Subdivision Plan subdivides the property into three portions as indicated in **Figure 6**, namely:

- Portion 1 (34,8 ha) – provides for 1 577 residential units, i.e. 200 2-storey townhouses (3-beds) and 1 377 4-storey walk-ups (1, 2 & 3-beds)
- and 3 000 m² GLA for the retail square.
- Portion 2 (38,7 ha) – Innovation Precinct, with 20 200 m² GLA allocated for a data centre, education/ community facilities and business use.

- Portion 3 (34,4 ha) – the area outside the previous Klapmuts urban edge that was excluded from the initial Klapmuts Hills approval. Development on this portion will be included in future applications for the Stellenbosch Bridge development.
    - 1577 residential
    - 28 000 m² bulk
        - Office – 22 000 m²
        - Retail – 5 500 m²
        - Restaurant/Coffee Shop – 500 m²

Portions 1 and 2 will retain a Sub-divisional Area zoning and Portion 3 will remain Agriculture as part of Application 1. Following approval of this application, separate subdivision applications will be submitted for Portions 1 and 2 that will indicate the proposed zoning categories for the individual erven.

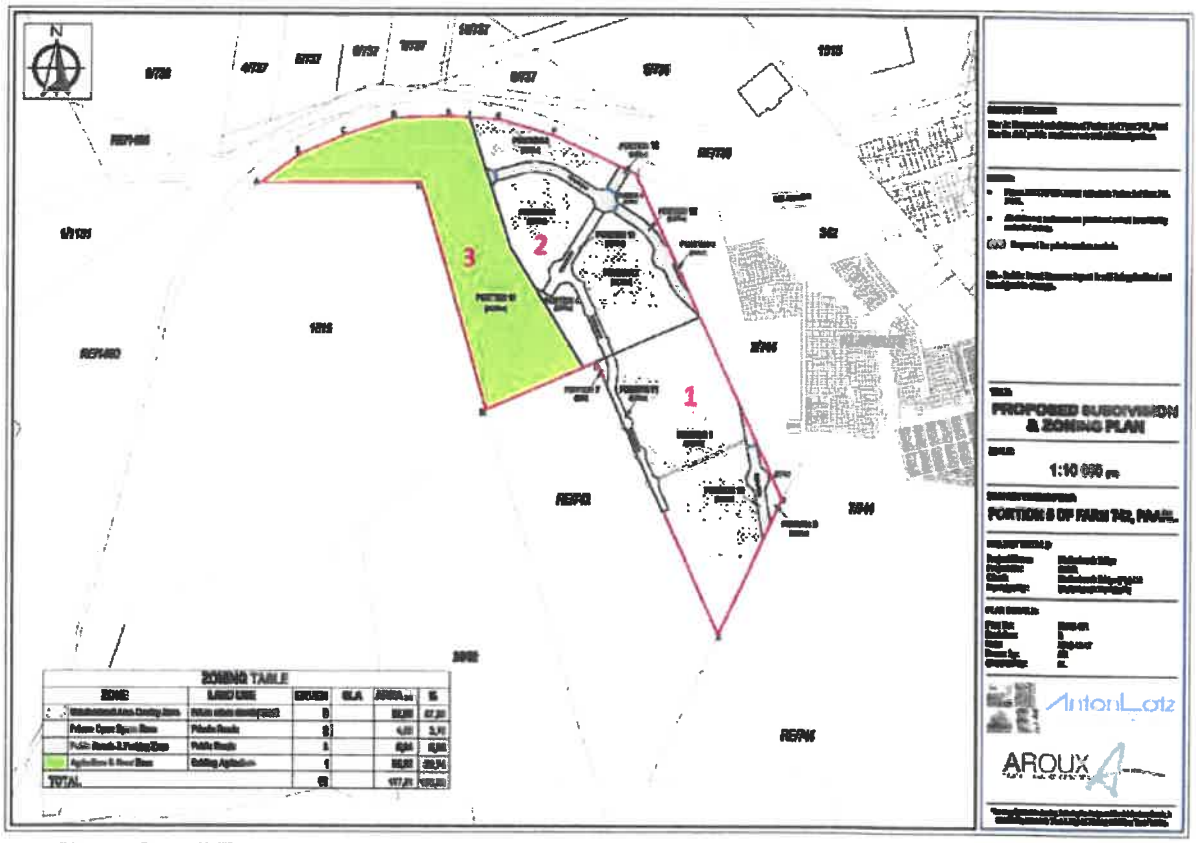


Figure 6: The proposed Subdivision Plan for Application 1.
Source: Stellenbosch Bridge (Pty) Ltd., 2020

The Application related to Portion 5 of Farm 742, Paarl, includes the approval of the amended Development Framework Plan, an amended phasing plan, subdivision plan and deletion of the set of conditions of approval (Anton Lotz Town Planning & ARoux Town Planning, 2019a).

As indicated in **Figure 7**, the proposed development on the site can be separated into two components (which will ultimately form two separate precincts), namely a predominantly residential component to the south and a mixed-use phase to the north. The two development areas are separated by a green open space system that accommodates stormwater systems and existing treelines and creates interest and variety in the development.

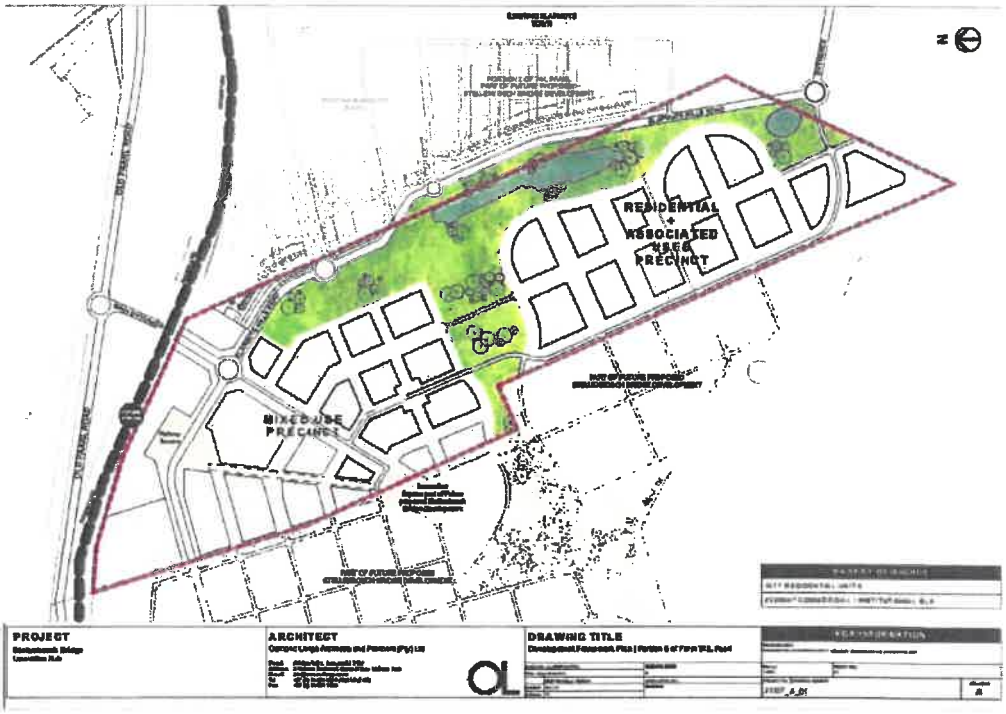


Figure 7: The proposed amended Development Framework for Application 1.
Source: Anton Lotz Town Planning & ARoux Town Planning, 2019a

The residential component on the southern portion will accommodate a total of 1 577 residential units, which is the total residential provision provided for in the approved Basket of Rights. The residential development will mostly be in the form of high- and medium-density sectional-title schemes. The allocation of these units will be done as part of the future Precinct Plan approval. Provision is also made for a retail square, which will utilise approximately 3 000 m² GLA. The northern portion will accommodate mixed-use development that will ultimately form the core of the Innovation Precinct. The remaining GLA of 20 200 m² will be used in this phase. This will include a data centre, education/community facilities and business use.

The main vehicular access to the development will remain via an underpass road from Old Paarl Road and supported by a road link into the Klapmuts town. Two north-south vehicular routes will accommodate traffic movement on-site and will connect with the future circular movement system on the adjacent properties that will form part of the proposed Stellenbosch Bridge development. The open space system will be designed in an integrated manner to facilitate pedestrian movement via a combination of hard and soft landscaped open spaces.

The development footprint areas for the northern commercial component are largely similar to the approved Development Framework, although the density and character of this area will be different. The development footprint of the southern residential portion is also similar, although the open space area now moves from the western side of the site to the eastern side allowing for a better alignment of movement and services systems. It is evident that the proposed amended Development Framework Plan, which retains the existing Basket of Rights, will not result in any additional impact on the surrounding environment and that the merits on which the previous land use approval was based, remain unchanged (Anton Lotz Town Planning & A Roux Town Planning, 2019a).

2.3 Application 2: Rezoning and Subdivision of Remainder Farm 744/2

Application 2 refers to the Rezoning and Subdivision of Remainder Farm 744/2, which is situated between the western edge of the existing Klapmuts urban area and the Klapmuts Hills site to the west (Portion 5 of Farm 742,

Paarl). Despite its agricultural zoning, the site has been included within the Klapmuts urban edge for many years and envisaged to form part of the town's expansion westwards (Anton Lotz Town Planning & A Roux Town Planning, 2019b).

The site is mostly vacant with the only structures on the site being the current owner's industrial and residential buildings close to the site's southern boundary (refer to **Figure 8**). A separate portion will be created as part of the proposed subdivision to allow the current owner to retain this portion and the current structures. The remainder of the site contains disturbed natural vegetation. The site was previously used for sand and gravel mining and are currently infested by alien vegetation. The biodiversity of the site is low due to the lack of natural vegetation. Small mammals, including Steenbok, game birds as well as reptiles and rodents frequent the site from time to time from the naturally vegetated Klapmutskop. The site is relatively low-lying and adjacent to existing residential areas and therefore has limited visibility from surrounding developed areas and major routes. The Klapmuts Village east of the site consists mostly of low-income and informal housing.

Figure 8: Proposed layout plan for of Portion 2 of Farm 744, Paarl (Application 2).
Source: Anton Lotz Town Planning & ARoux Town Planning, 2019b

The property is currently owned by Safamco Enterprises (Pty) Ltd, but an agreement of sale is in place between Stellenbosch Bridge (Pty) Ltd and Safamco (Pty) Ltd. The property is currently zoned Agriculture & Rural Zone in terms of the Stellenbosch Municipality Zoning Scheme By-Law (2019). The site contains a pipeline servitude along the southwestern and southern boundaries of the site.

The site forms the proposed light-industrial precinct along the eastern edge of the Stellenbosch Bridge development. The vision for this precinct is to function as a manufacturing, logistics and data centre area for the Innovation Precinct. Although the subject property forms part of the Stellenbosch Bridge development site, it was agreed with the Municipality during pre-submission consultation that a separate land-use application (including rezoning, subdivision

and consent) be submitted for this site due to its location within the existing Klapmuts urban edge and higher levels of accessibility to transport and services infrastructure.

The project components include the following:

- Application for **rezoning** of Remainder Portion 2 of Farm 744, Paarl, from Agriculture & Rural Zone to Subdivisional Area Overlay Zone in terms of Section 15(2)(a) of the Stellenbosch Municipality: Land Use Planning By-law, 2015, including a Basket of Rights of 90 500 m² floor area;
- Application for **subdivision** of Remainder Portion 2 of Farm 744, Paarl, into seven portions in terms of Section 15(2)(a) of the Stellenbosch Municipality: Land Use Planning By-law, 2015, to provide for:
  - 2 portions zoned Subdivisional Area Overlay Zone
  - 2 portions zoned Public Roads & Parking Zone
  - 1 portion zoned Industrial Zone
  - 2 portions zoned Private Open Space Zone

Application is also made for the Consent of Council to allow **Business Premises** on the two portions to retain Subdivisional Area zonings until further subdivision. The intention is to allow the opportunity for better integration of a range of appropriate commercial, professional and/or retail uses with the intended industrial uses as part of an integrated mixed-use innovation precinct. The development layout will ensure that a sufficient buffer area is created between the manufacturing, data centre and distribution uses and the existing residential uses to the east. The different industrial land-uses include the following:

Service Industry (for public)	5 500 m²
Manufacturing	25 000 m²
Warehousing and Distribution	25 000 m²
Mini-warehousing - storage	10 000 m²
Data Centre	25 000 m²
Sub-Total (Floor area)	**90 500 m²**

2.4 Application 3: Densification on Portions 1 & 3

Total area: 252 500 m²
The different industrial land-uses include the following (refer to Table 2 for further detail):

- Densification on Portions 1 & 3 (73 ha)
- 1 423 residential (apartments)
- Business - 159 000 m² (office, retail, shopping centre, restaurant/coffee shop and entertainment)
- Industrial - 40 000 m² (service industry, manufacturing, warehousing and distribution, storage)
- Institutional - 50 000 m² (University/College, Research and Development - labs, incubators, Training Centre, Place of Assembly/Community Facilities, Place of Worship, Pre-School/Daycare, Medical Consulting Rooms and Medical Clinic)
- Other – 3 500 m² (Accommodation and Sport Stadium & Indoor Sport)

2.5 Application 4: Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4

Total area: 309 000 m²

The different industrial land-uses include the following (refer to Table 2 for further detail):

- Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106 ha).
- 3 000 residential units (2 300 apartments, 200 Grouphousing, 500 Retirement village)
  - Business - 108 000 m² (office, retail, Restaurant/Coffee Shop and Entertainment)
  - Industrial - 63 000 m² bulk (Service Industry, Manufacturing, Warehousing and Distribution, Mini-warehousing - storage and Data Centre)
  - Institutional - 118 000 m² (Private school, University/College, Research and Development - labs, incubators, Place of Assembly/Community Facilities, Place of Worship, Pre-School/Daycare and Private Hospital)
  - Other – 20 000 m² (Hotel, Guest House/Tourist Accommodation, Sport Stadium & Indoor Sport, Health and Fitness and Conference Centre)

3. OVERVIEW OF THE STELLENBOSCH MUNICIPAL AND CAPE WINELANDS DISTRICT ECONOMIES

3.1 Overview

The Stellenbosch Municipal economy contributed approximately 24,20% to the economy of the Cape Winelands District in 2018. In terms of absolute numbers, the Stellenbosch economy generated R10 896 million in Gross Value Added (GVA) at constant prices[1], relative to R45 023 million recorded for the Cape Winelands District. The GVA contribution of the Stellenbosch economy to the Cape Winelands District decreased from 25,48% in 2005 to 24,20% in 2018. The Stellenbosch economy grew off a solid base by 2,35% per annum from 2005 to 2018, or 35,29% over the 13 years.

Figure 9 indicates the contributions of the different sectors to the GVA of the Stellenbosch economy for 2005 and 2018. The largest sector of the Stellenbosch economy in 2018 was Finance, Insurance, Real Estate and Business Services sector, followed by Wholesale and Retail and Manufacturing. Combined, these three sectors contributed almost 61,59% of the total GVA generated by the Stellenbosch economy in 2018, a decrease of 1,84% from 2005. The Finance, Insurance, Real Estate and Business Services has remained the largest contributor to the Stellenbosch GVA, whereas Wholesale and Retail overtook Manufacturing in 2018. The Manufacturing sector's contribution decreased from 23,88% in 2005 to 16,12% in 2018, whereas Finance, Insurance, Real Estate and Business Services increased its contribution to GVA from 22,67% in 2005 to 26,50%.

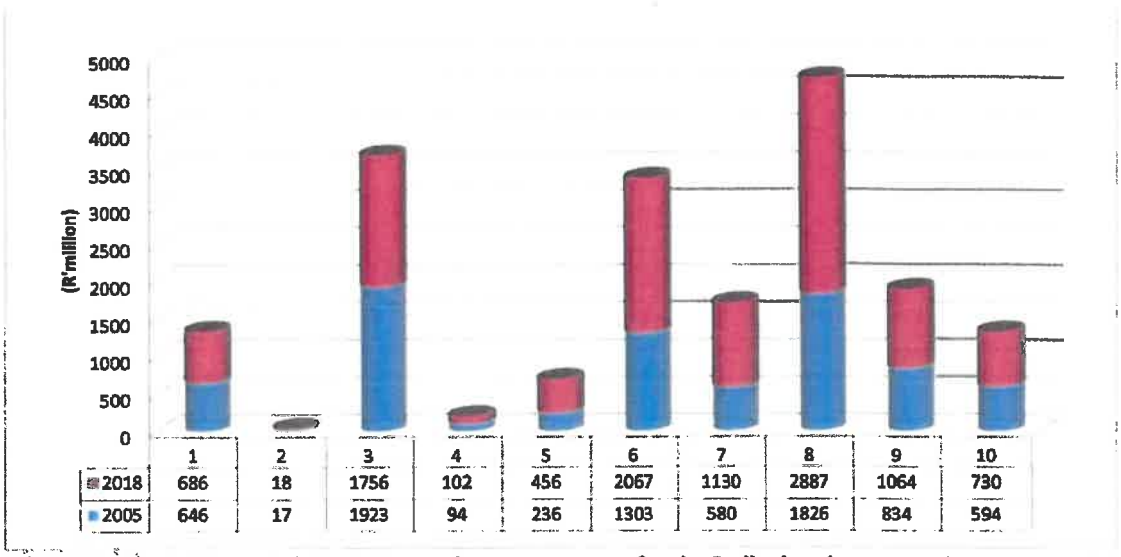


Figure 9: An illustration of the GVA contribution per sector for the Stellenbosch economy in 2005 and 2018

Legend:

1	Agriculture, hunting, forestry and fishing	6	Wholesale and retail
2	Mining and quarrying	7	Transport, storage and communication
3	Manufacturing	8	Finance, insurance, real estate and business services
4	Electricity, gas and water supply	9	Community, social and personal services
5	Construction	10	Government Services

Source: Adapted from data provided by Quantec Research, 2019

[1] GVA and Gross Geographic Product (GGP) or Gross Regional Product (GRP) are very similarly related concepts. GVA excludes taxation and subsidies, whereas GDP includes the items. GVA is analysed using current prices

To understand whether sectors are contracting or growing, it is useful to consider the overall and annual growth rates and to compare those to the Cape Winelands District within which the Stellenbosch economy functions. **Figure 10** indicates the annual compounded growth rates per economic sector for the Stellenbosch Municipality and Cape Winelands District from 2005 to 2018.

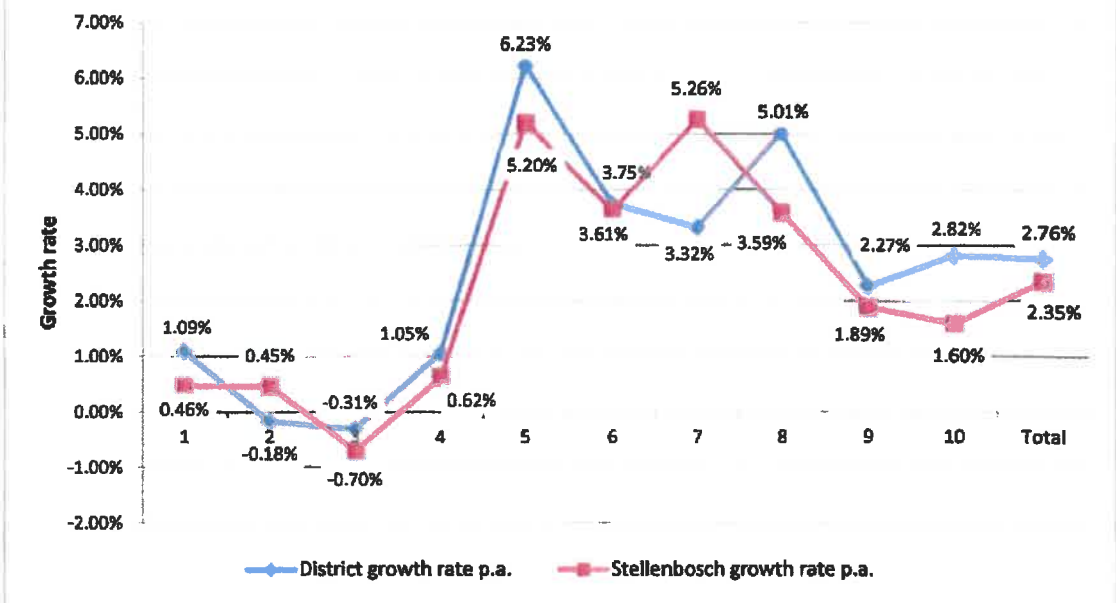


Figure 10: An illustration of the annual nominal growth rates per economic sector for Stellenbosch Municipality and the Cape Winelands District from 2005 to 2018

Legend:

1	Agriculture, hunting, forestry and fishing	6	Wholesale and retail
2	Mining and quarrying	7	Transport, storage and communication
3	Manufacturing	8	Finance, insurance, real estate and business services
4	Electricity, gas and water supply	9	Community, social and personal services
5	Construction	10	Government Services

Source: Adapted from data provided by Quantec Research, 2019 and own calculations

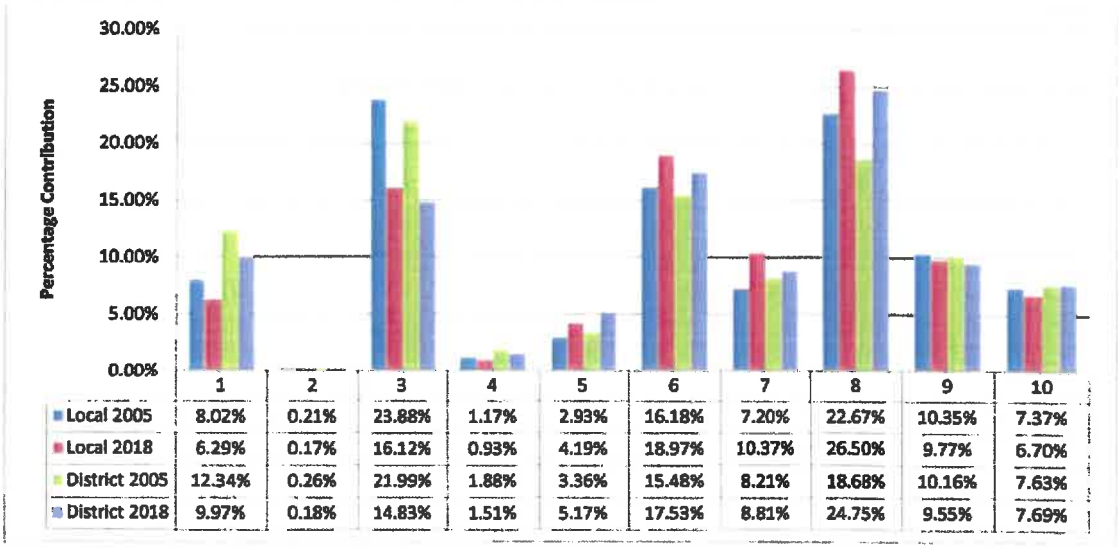
The Cape Winelands and Stellenbosch economies grew in nominal terms by 2,76% and 2,35% per annum, respectively, from 2005 to 2018 (refer to "Total" in **Figure 10**). Only the Transport, Storage and Communication sector in the Stellenbosch economy achieved a higher growth rate than the District over the period 2005 to 2018.

The Transport, Storage and Communication, Construction and Construction sectors demonstrated the highest annual growth rates for the Stellenbosch Municipality over the period 2005 to 2018. In contrast, the Manufacturing sector declined by 0,70% per annum between 2005 and 2018, while its contribution to GVA declined by 32,51% from 2005 to 2018.

3.2 Sector analysis of GVA contributions

Figure 11 indicates the contribution of each economic sector to the GVA of the Stellenbosch and the Cape Winelands District economy for 2005 and 2018. An assessment of the larger sectors in the Stellenbosch economy suggests that the contribution of the Wholesale and Retail and Finance, Insurance, Real Estate and Business Services sectors increased their contribution to the economy, while Manufacturing declined the most significantly. A similar pattern is found in the District economy from 2005 to 2018. Finance, Insurance, Real Estate and Business Services increased its contribution to GVA of the District economy by 32,49% over the period. The contribution of the manufacturing sector declined from 21,99% in 2005 to 14,83% in 2018. The contribution of the sectors to GVA in the Stellenbosch

area and the Cape Winelands District remained more or less in the same proportions whether the sector contribution increased or declined. The only exception was Government Services, which indicated a decline in its contribution to the local economy, but a slight increase for the District economy.



	1	2	3	4	5	6	7	8	9	10
Local 2005	8.02%	0.21%	23.88%	1.17%	2.93%	16.18%	7.20%	22.67%	10.35%	7.37%
Local 2018	6.29%	0.17%	16.12%	0.93%	4.19%	18.97%	10.37%	26.50%	9.77%	6.70%
District 2005	12.34%	0.26%	21.99%	1.88%	3.36%	15.48%	8.21%	18.68%	10.16%	7.63%
District 2018	9.97%	0.18%	14.83%	1.51%	5.17%	17.53%	8.81%	24.75%	9.55%	7.69%

Figure 11: Sector contributions to GVA for the Stellenbosch and District municipal areas in 2005 and 2018

Legend:

1	Agriculture, hunting, forestry and fishing	6	Wholesale and retail.
2	Mining and quarrying	7	Transport, storage and communication
3	Manufacturing	8	Finance, insurance, real estate and business services
4	Electricity, gas and water supply	9	Community, social and personal services
5	Construction	10	Government Services

Source: Adapted from data provided by Quantec Research, 2019

A synopsis of the data presented in **Figure 11** suggests that four sectors indicated an increased contribution to GVA for the Stellenbosch economy, while six sectors indicated a declining contribution. The trend emerging across the District is similar with five on the 10 sectors increasing their GVA contribution to the District economy. The concern with this trend is the reduction in employment levels within the more labour-intensive sectors of the economy. A greater focus on sectors with a service orientation has emerged over the 13 years of the analysis, which are invariably low employment creators compared to construction and manufacturing.

The assessment of GVA sector contributions together with the annual and period growth rates for 2005 and 2018 are indicated in **Table 1**. Among the 10 classified sectors, nine sectors indicated an annual increase in economic activity with the Manufacturing sector indicating a year-on-year decline from 2005 to 2018. The declining trend in the contribution of the Manufacturing sector to GVA is concerning due to the labour-intensive nature of the industries that generally form part of this sector. The analysis also demonstrates that the Manufacturing sector is declining in favour of increases in Finance, Insurance, Real Estate and Business Services and Wholesale and Retail Trade, which alludes to a greater focus on service orientation.

Table 3: An assessment of sector contributions to GVA and annual growth rates in 2005 and 2018 for the Stellenbosch economy

Economic sector (R'million)	Gross Value Added				Growth for Period	Annual growth	Direction of growth
	2005	% of total	2018	% of total			
Agriculture, hunting, forestry and fishing	646	8,02%	686	6,29%	6,12%	0,46%	↑
Mining and Quarrying	17	0,21%	18	0,17%	6,07%	0,45%	↑
Manufacturing	1 923	23,88%	1 756	16,12%	-8,69%	-0,70%	↓
Electricity, gas and water supply	94	1,17%	102	0,93%	8,35%	0,62%	↑
Construction	236	2,93%	456	4,19%	93,21%	5,20%	↑
Wholesale and retail	1 303	16,18%	2 067	18,97%	58,59%	3,61%	↑
Transport, storage and communication	580	7,20%	1 130	10,37%	94,72%	5,26%	↑
Finance, insurance, real estate and business services	1 826	22,67%	2 887	26,50%	58,09%	3,59%	↑
General government	834	10,35%	1 064	9,77%	27,63%	1,89%	↑
Community, social and personal services	594	7,37%	730	6,70%	22,99%	1,60%	↑
Total	8 054	100,00%	10 896	100,00%	35,29%	2,35%	↑

Source: Adapted from data provided by Quantec Research, 2019 and own calculations

3.2.1 Primary sector

The primary sector of the Stellenbosch economy includes Agriculture, Hunting, Forestry and Fishing activity and Mining and Quarrying. The primary sector contributed 6,46% to the GVA of the Stellenbosch economy in 2018, which is slightly down from 8,24% in 2005. Agriculture is the largest contributor to the GVA of the primary sector with a sector contribution of 97,39% in 2005, which remained the same in 2018.

3.2.2 Secondary sector

The secondary sector of the Stellenbosch economy includes Manufacturing, Construction and Electricity, Gas and Water Supply. The secondary sector contributed 27,98% to the GVA of the Stellenbosch economy in 2005, while the contribution to GVA decreased to 21,24% in 2018. The contribution of the Manufacturing sector to secondary sector GVA decreased from 85,35% in 2005 to 75,88% in 2018, which is a particular concern.

3.2.3 Tertiary sector

The tertiary sector of the Stellenbosch economy includes Trade, Repairs and Hospitality, Financial Institutions, Real Estate and Business Services; Community, Social and Personal Services; and Government Services. The tertiary sector contributed 63,78% to the GVA of the Stellenbosch economy in 2005, which increased to 72,30% in 2018.

Government Services are included as part of the tertiary sector for the analysis. The analysis suggests that the contribution of Government Services to the GVA of the tertiary sector of the Stellenbosch economy decreased from 16,23% in 2005 to 13,50% in 2018.

3.3 General employment trends

A comparison of total employment in the Cape Winelands District and Stellenbosch Municipality indicates that Stellenbosch contributed 19,84% of the total employment of the Cape Winelands District in 2018 and 3,03% to the total employment in the Western Cape Province.

The primary, secondary and tertiary sectors of the Stellenbosch economy contributed 13,50%, 15,45% and 71,06% to total employment in the local economy in 2018, respectively. In comparison, the Cape Winelands District enjoyed total employment contributions of 20,97%, 14,09% and 64,94% from the primary, secondary and tertiary sectors, respectively.

Overall employment in the Stellenbosch economy increased by 34,69% over the period 2001 to 2018. The strong growth in the tertiary sector was offset by low growth in employment in the primary and secondary sectors of the local economy. Strong employment growth was recorded in the tertiary sector with an increase of 74,72% over the period 2001 to 2018, or an annual compounded growth of 3,34% per annum. The Cape Winelands District experienced similar trends, with a decline of 34,33% recorded for the primary sector, and increases of 32,32% and 94,62% for the secondary and tertiary sectors, respectively.

In terms of employment growth by sector in the Stellenbosch area and specified periods pre-2008, 2008 - 2011 and post-2011, it is clear that the tertiary sector grew marginally with growth of 1,27% from 2008 to 2011 (Figure 12). The secondary sector and primary sector of the economy shed jobs with declines of 7,17% and 25,58%, respectively, over the period 2008 to 2011. Post-2011, all primary, secondary and tertiary sectors started growing or clawing back jobs shed in the previous period, achieving an increase in employment of 10,62%, 9,10% and 18,15% over the period 2012 to 2018, respectively. However, the primary sector has not recovered in 2018 from the lost employment from 2001 to 2008, which is a concern with specific reference to labour-intensive industries.

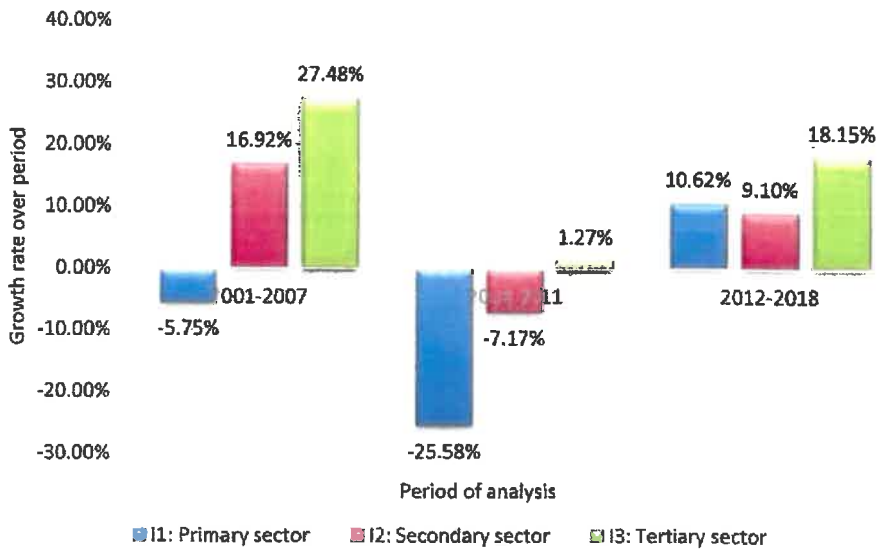


Figure 12: An illustration of the employment growth in the Stellenbosch Municipality for three specified periods (pre-recession, recession and post-recession) from 2001 to 2018

Source: Quantec, 2019 and own calculations

4. FEASIBILITY OF THE PROJECT AND FIT WITH SPATIAL PLANNING

4.1 Financial feasibility and sustainability

No financial feasibility study was conducted by Multi-Purpose Business Solutions and no assessment can be provided at this stage. Notwithstanding, any mixed-use development with residential, business and industrial components will be demand-driven. The business model, which is coupled to a development and phasing scenario, will determine the stages of development and the prioritisation of different components. It is likely that the properties will be released using a staged approach to ensure maximum market visibility and account for the market conditions at the time. It is unclear how long it will take to sell-out but the development of said components envisaged as part of Applications 1 and 2 is planned for construction over 4 years. Given the profile of Stellenbosch and the Klapmuts area as an identified development node, the location of the property and price stability in the area, the duration of the envisaged development timeframe for the said Applications. It is also apparent from the traditional business model that the developer would introduce services and it is possible that clustering will form an integral part of the development roll-out plan.

The status of the developer and the need for prudence when approaching the development of Stellenbosch Bridge suggest that undertaking a project of this nature and investing the required funding would not occur should the project not be considered feasible. Although we have not assessed the feasibility of the project, it is considered economically viable and financially feasible for the reasons mentioned above and risk mitigation that a prudent developer would implement.

4.2 Compatibility with National and spatial planning from an economic perspective

The individual benefits of a project overstate the true benefits if the project diminishes benefits elsewhere in the area. The economic desirability is therefore essential to determine whether the proposed development compliments economic planning as reflected in spatial development planning. It is not sufficient that the development results in some positive spin-offs if it is not compatible with planning guidance designed to maximize the overall economic potential of an area. Spatial Development Frameworks (SDFs) in particular are central to economic development planning and to guide overall development in a direction that local and provincial authorities see as desirable. Notwithstanding, the basic purpose of an SDF is to outline the spatial implications of Integrated Development Plans (IDPs). To provide some context, the provincial, regional and local SDFs (together with related frameworks, interpretation reports and discussion documents) and Local Economic Development plans and strategies (together with other documents that offer guidance) are considered as a premise for this part of the assessment. Where appropriate, other planning and development guidelines and policies were also considered.

4.2.1 National Development Plan 2030 (NDP 2012)

The National Development Plan (NDP, National Planning Commission, 2012) sets out six interlinked priorities (National Planning Commission, 2012 - p. 29):

- Uniting all South Africans around a common programme to achieve prosperity and equity;
- Promoting active citizenry to strengthen development, democracy and accountability;
- Bringing about faster economic growth, higher investment and greater labour absorption;
- Focusing on key capabilities of people and the state;
- Building a capable and developmental state; and
- Encouraging strong leadership throughout society to work together to solve problems.

While the achievement of the objectives of the National Development Plan requires progress on a broad front, one of the fundamental factors is raising employment through faster economic growth. A sustainable increase in

employment will require a faster-growing economy and the removal of structural impediments, such as poor-quality education or spatial settlement patterns that exclude the majority. These are essential to achieving higher rates of investment and competitiveness and expanding production and exports. Business, labour, communities and government will need to work together to achieve faster economic growth (p. 30).

Transforming the South African economy is a challenging, long-term project. In summary, the NDP proposes to enhance human capital, productive capacity and infrastructure to raise exports, which will increase resources for investment and reduce reliance on capital inflows. Higher investment, supported by better public infrastructure and skills, will enable the economy to grow faster and become more productive. Rising employment and productivity will lead to improved incomes and living standards and less inequality. Shifting the economy towards more investment and lower consumption is thus necessary for long-term economic prosperity (p. 42). In addition, more efficient and competitive infrastructure is required to facilitate economic activity that is conducive to growth and job creation (p. 42).

Relevance to Stellenbosch Bridge

The NPD 2030 sets out six interlinked priorities that include enabling faster economic growth, higher investment and greater labour absorption. The Stellenbosch Bridge development subscribes to the NDP principles by offering residential and employment opportunities in an area that requires development to assist employment creation. The industrial component is intended to create employment for those residents already in Klapmuts and those that will migrate to the area.

4.2.2 Western Cape Provincial Spatial Development Framework (WCPSDF) 2014

The Western Cape Provincial Spatial Development Framework (Provincial Government of the Western Cape, 2014) refers to the importance of a coherent framework for the Province's urban and rural areas that gives spatial expression to the National and Provincial development agendas, among others. It's guiding principles include the following:

- **Spatial justice**: Past spatial and other development imbalances should be redressed through improved access to and use of land by disadvantaged communities.
- **Sustainability and resilience**: Land development should be spatially compact, resource-frugal, compatible with cultural and scenic landscapes, and should not involve the conversion of high-potential agricultural land or compromise ecosystems.
- **Spatial efficiency**: Efficiency relates to the form of settlements and use of resources - compaction as opposed to sprawl; mixed-use, as opposed to mono-functional land-uses; residential areas close to work opportunities as opposed to dormitory settlement, and prioritisation of public transport over private car use.

In terms hereof, the logical underpinning of the spatial strategy of the WCPSDF covers the following (p. 34):

- Capitalise and build on the Western Cape comparative strengths (e.g. gateway status, knowledge economy, lifestyle offering) and leverage the sustainable use of its unique spatial assets;
- Consolidate existing and emerging regional economic nodes as they offer the best prospects to generate jobs and stimulate innovation;
- Connect urban and rural markets and consumers, fragmented settlements and critical biodiversity areas (i.e. freight logistics, public transport, broadband, priority climate change ecological corridors, etc.); and
- Cluster economic infrastructure and facilities along public transport routes (to maximise the coverage of these public investments) and respond to unique regional identities within the Western Cape.

The Province's economic prospects lie in the urban space-economy (i.e. the metropolitan area), with public infrastructure investment forecasted to be the leading driver of growth. Several of the key concepts related to the space-economy policies refer to the following (as adapted) (p. 76):

- Reinforce the Cape Metro region as the Province's economic engine;
- Use new bulk economic infrastructure investment in the Cape Metro functional region to leverage private sector and community investments (i.e. energy, water, transport and freight logistics, ICT);
- Build 'land assembly' capacity in the urban space-economies and apply new land policy instruments (e.g. land banking, land value capture, etc.);
- Incentivise mixed land-use and economic diversification in urban land markets;
- Regenerate and revitalise existing economic nodes in the urban space-economy (i.e. CBDs, etc.);
- Prioritise public transport investment and higher-order facilities in district centres; and
- Prioritise rollout of the 'greener' economy.

Relevance to Stellenbosch Bridge

The proposed Stellenbosch Bridge Development will contribute towards the provision of housing opportunities, add revenue and additional employment in the construction sector, which will further strengthen growth in the local economy. The project addresses spatial efficiency to some extend, i.e. compaction within the urban edge, mixed-use development and residential areas close to work opportunities. Opportunities to prioritise public transport is also possible due to the location of the development adjacent to the existing town of Klapmuts, which is also on the main railway line between Cape Town and Paarl.

4.2.3 Cape Winelands Integrated Development Plan 2017/18 – 2021/22

The 2018/2019 review of the Cape Winelands IDP (Cape Winelands District Municipality, 2018b) confirmed the vision of "A unified Cape Winelands of excellence for sustainable development", which is demonstrated in the following strategic objectives:

1. Creating an environment and forging partnerships that ensure social and economic development of all communities, including the empowerment of the poor in the Cape Winelands District;
2. Promoting sustainable infrastructure services and a transport system that fosters social and economic opportunities; and
3. Providing effective and efficient financial and strategic support services to the CWDM.

Over the past decade(s), Stellenbosch has seen growth in several economic sectors, e.g. higher education and research, agriculture and agro-processing, tourism, corporate headquarters and business services. In this area, the challenge is to watch carefully how growth impacts on the environment, on transport capacity, on its "urban edge" and the competition between different land uses.

The majority, i.e. 77%, of building activities — a critical source of local government revenue — that occurred within the CWDM, was completed within the Stellenbosch and Drakenstein municipalities, accounting for 81% of the total area for residential space and almost 70% of industrial space. However, they are also home to 60% of all informal dwellings in the CWDM and 18 of the 27 informal settlements, with a high vulnerability index. The fact is that some of the higher-order towns, i.e. Stellenbosch and Paarl, have sizeable numbers of unemployed people.

The CWDSDF includes several strategies to facilitate integrated human settlements, with none more important than ensuring informed decision-making and investment through essential and tailor-made structures, systems and processes. Some strategies and actions were designed to address urban management challenges, e.g. urban restructuring, urban edge delineation, densification and land conversion.

The provincial hierarchical order of towns' classification and growth indicators is used to identify priority areas for the provision of housing, i.e. higher, first- and second-order towns and high-risk informal settlements. The District IDP proposes that the provision of housing should be demand-driven and supply-negotiated. Mass-scale developments are to be considered (only) in higher-order towns (such as Stellenbosch), whereas small-scale developments are appropriate in first- and second-order towns. Furthermore, decisions on housing delivery must also protect community heritage and values.

Relevance to Stellenbosch Bridge

The proposed Stellenbosch Bridge will contribute to the main growth nodes in the District, i.e. Stellenbosch and Drakenstein. It will support the creation of an environment and forging partnerships that ensure social and economic development of the Klapmuts community. Furthermore, the broader community will benefit from the introduction of infrastructure to support the development.

4.2.4 Cape Winelands Spatial Development Framework 2019/2024

As a sector plan of the Cape Winelands IDP, the Cape Winelands District Spatial Development Framework (Cape Winelands District Municipality, 2018a), adopts the CWDM IDP's vision of "A unified Cape Winelands of Excellence for sustainable development" and mission, "All structures of the Cape Winelands co-operate together towards effective, efficient and economically sustainable development".

The objectives of the CWD SDF are:

- To improve the quality of life for the people of the region by ensuring principle-led responses;
- To plan by considering future population growth, economic and climatic changes;
- To manage the impact and exposure of external and internal threats to growth and development;
- To restructure urban settlements through compaction and densification;
- To promote sustainable resource use and responsible rural development; and
- To improve and conserve the District's natural environment.

The annual population growth rate for the Stellenbosch Municipality has slowed down from 2.75% for 2001-2011 to 2.25% for 2011-2016. If the annual projected growth rate of 2.2% for 2016-2026 is realised, the population in the Stellenbosch Municipality will increase from 173 418 in 2016 to 215 040 in 2026. Municipal spatial development frameworks include estimates on the demand for housing units across different socio-economic categories and the planned location and density of future housing development. Proactive planning is essential to achieving good governance and efficient service delivery. However, the ability of municipalities and the government to provide housing and related services remains nearly an impossible challenge.

The Growth Potential Study (Van Niekerk, et al., 2014) determined the growth potential for municipalities and towns in the Western Cape based on assessing human capital, infrastructure availability, economy, physical attributes and institutional capacity (p. 24). The study indicated that Stellenbosch, Paarl and Wellington are located within the functional metro-economy of Cape Town. These towns function more like an extension of the metropolitan area; people live in the metro and work and make use of services in these towns and *vice versa*. The economic growth outlook will therefore always remain positive, although the long-term impact of a "drying" Cape Winelands region is not known. In particular, Stellenbosch was found to have a very high growth potential and very high social needs.

Relevance for Stellenbosch Bridge

The proposed Stellenbosch Bridge development will foster the objectives of the SDF by improving the quality of life for the people of the Klapmuts area that will support both the Drakenstein and Stellenbosch Municipalities. It will create urban settlements through compaction and densification while considering future population growth in the area and addressing limitations of development closer to Stellenbosch.

4.2.5 Stellenbosch Spatial Development Framework (SDF) (2019)

The 2019 Municipal Spatial Development Framework (Stellenbosch Municipality, 2019b) recognises that the spatial decisions and actions of many participants determine the nature of a settlement. Specifically, to the following seven principles should be considered:

- Maintain and grow the assets of Stellenbosch Municipality's natural environment and farming areas.
- Respect and grow the cultural heritage, the legacy of physical artefacts and intangible attributes of society inherited from past generations maintained in the present and preserved for the benefit of future generations.
- Within developable areas, allow future opportunity to build on existing infrastructure investment, on the opportunity inherent in these systems when reconfigured, augmented or expanded.
- Clarify and respect the different roles and potentials of existing settlements.
- Address human needs – for housing, infrastructure and facilities – clearly in terms of the constraints and opportunities related to natural assets, cultural assets, infrastructure and the role of settlements.
- Pursue balanced communities.
- Focus energy on a few catalytic areas that offer extensive opportunity and address present risk.

The 2019 MSDF specifically addresses the development of Klapmuts (p. 124-127) and refers to the Greater Cape Metro Regional Spatial Implementation Framework (RSIF) that contains very specific policy directives related to Klapmuts, aimed at addressing pressing sub-regional and local space economy issues. Key policy objectives include:

- Using infrastructure assets (e.g. key movement routes) as "drivers" of economic development and job creation.
- Recognition that existing infrastructure in the area (i.e. N1, R101, R44 and the Paarl-Bellville railway line and station) dictate the location of certain transport, modal change or break-of-bulk land uses.
- Recognition of the Klapmuts area as a significant new regional economic node within the metropolitan area and spatial target for developing a "consolidated platform for the export of processed agri-food products (e.g. inland packaging and containerisation port)" and "an inter-municipal growth management priority".
- The consolidation of and support for existing and emerging regional economic nodes as they offer the best prospects to generate jobs and stimulate innovation.
- The clustering of economic infrastructure and facilities along public transport routes.
- Maintaining valuable agricultural and natural assets.
- Providing work opportunity in proximity to living areas.

Being located on the N1 transport corridor that carries 93% of metropolitan freight traffic, Klapmuts is a potentially significant centre for economic activity and residence within the metropolitan region and Stellenbosch Municipality. Up till recently, the settlement was characterized by residential use and limited commercial and work-related activity. Public sector resource constraints have prevented the infrastructure investment required to enable and unlock the full potential of the area for private-sector economic development. In recent years, this has started to change with large new projects, such as the proposed Distell Limited facility on Paarl Farm 736/RE, located north of the N1, and the Stellenbosch Bridge development) directly west of Klapmuts South

Several issues require specific care in managing the development of Klapmuts over the short to medium term, including speculative applications for land-use change on the back of the proposed Distell development and speculative higher-income residential development in the Klapmuts area based on the area's regional vehicular accessibility. Another concern is the linkages between Klapmuts north and south, specifically along Groenfontein Road and a possible NMT crossing over the N1 linking residential areas south of the N1 directly with Farm 736/RE. Without these linkages, residents to the south of the N1 will not be able to benefit from the opportunity enabled north of the N1.

Higher-income development is not a problem in and of itself, but ideally, it should not be in the form of low-density gated communities. Given that management of Klapmuts is split between Drakenstein and Stellenbosch Municipalities (respectively responsible for the area north and south of the N1), special arrangements will be required to ensure that the settlement as a whole develops responsibly in a manner that ensures thoughtful prioritization, infrastructure investment and opportunity for a range of income groups.

The following spatial recommendations related to Klapmuts are made in the 2019 MSDF (p. 73):

- Maintain and improve the natural areas surrounding Klapmuts.
- Work to increasingly connect and integrate nature areas, also with the urban green areas, to form an integrated green web or framework across the municipal area.
- Improve public continuity, access and space along the stream corridors.
- Retain and improve the relationship between Klapmuts and surrounding agricultural land.
- As a general principle, contain the footprint of Klapmuts as far as possible within the existing urban edge.
- Retain the strong sense of transition between agriculture and human settlement at the entrances to the town.
- Maintain the integrity of historically and culturally significant precincts and places (as indicated in completed surveys).
- Prioritise informal settlements for upgrading and service provision.
- Pro-actively support higher density infill residential opportunity in Klapmuts South.
- Retain and actively support mixed-use redevelopment and building within the town centre and surrounding areas, comprising living space above active street fronts.
- Pro-actively improve conditions for walking and NMT within Klapmuts.
- Prioritise NMT connections between Klapmuts North and South (in parallel with the development of Farm 736/RE).
- Cluster community facilities together with commercial, transport, informal sector and other activities to maximise convenience, safety and socio-economic potential.
- As far as possible, focus investment in parks, open space and social facilities accessible by public and NMT, in this way also increases the surveillance of these facilities.
- Support the development of Farm 736/RE in Klapmuts North to unlock the development potential of Klapmuts (with an emphasis on job creation).
- Support the development of an "innovation precinct" in Klapmuts South (i.e. Stellenbosch Bridge).
- Ensure that housing in Klapmuts South provides for a range of income groups.
- Improve linkages between Klapmuts North and South, specifically along Groenfonten Road and a possible NMT crossing over the N1.

Relevance to Stellenbosch Bridge
The Stellenbosch SDF (2019) alludes to several spatial recommendations for Klapmuts. Stellenbosch Bridge embraces these recommendations and intends to underpin the SDF spatial guidelines. For instance, the project entails the development of an "innovation precinct" that will unlock the development potential of Klapmuts (with an emphasis on job creation) and provide work opportunities in proximity to living areas.

4.2.6 Stellenbosch Integrated Development Plan (IDP) (2017-2022), 2nd Review

The 5-year Integrated Development Plan (IDP) plan informs the municipal budget and guides all development within the Stellenbosch Municipal area (Stellenbosch Municipality, 2019a. The IDP is considered the Municipality's principal strategic plan that deals with the most critical development needs of the municipal area, as well as the most critical governance needs of the organisation. The focus of the Stellenbosch IDP is to improve the provision of basic municipal services and expand livelihood opportunities for the people of the Stellenbosch Municipality. The IDP also focusses on expanding and transforming municipal capacity, enterprise development and exploring new ways of working and living together.

The IDP Strategic Focus Areas include the following:

- Valley of possibility
- Green and sustainable valley
- Safe valley
- Dignified living
- Good governance and Compliance

Several improvements in Klapmuts have been done recently by the Stellenbosch Municipality. This included the upgrading of the La Rochelle and Mandela City informal settlements in Klapmuts that included the increase and installation of bulk basic services. A new satellite fire station was established in Klapmuts to provide more effective response times and improved services with regards to fire safety. A new multi-purpose centre has been in completed in Klapmuts and will provide the community access to a range of services, including municipal and social development services, reducing their need to travel to other towns to access these services (p. 8). In terms of needs and service requirements, it should be noted that 298 serviced sites were created in Klapmuts (p. 223) and a number of new projects have been identified, i.e. establishment of informal trading sites, a new cemetery (p. 225), new community hall (p. 229), upgrade of WWTW, bulk sewer upgrade, bulk water supply (p. 232) and a taxi rank (p. 235).

The proposed settlement hierarchy for the Stellenbosch Municipal area emphasises the need to utilise Klapmuts for economic development and associated residential opportunity:

- Support for development of RE/Farm 736 as a lever to economic development utilising a favourable location for manufacturing, logistics and warehousing enterprises.
- Balanced housing provision in Klapmuts South, focused on those who can benefit from employment provision through unlocking Klapmuts North.
- Stellenbosch town and Klapmuts were recognised as spatial areas for priority development over the MSDF planning period (p. 74).
- Support the relocation of land for extensive manufacturing, logistics and warehousing enterprises from Stellenbosch town to Klapmuts (p. 75).
- Reinforce the role of Klapmuts as a potential regional logistics/ warehousing/ manufacturing hub – with associated residential opportunity – based on its location at the intersection of the N1 and regional north/ south movement routes (p. 78).

Relevance to Stellenbosch Bridge

The focus of the IDP is on economic growth and development of the area with a specific emphasis on poor communities. The focus on using infrastructure, industrial development and commercial development as an enabler for job creation further purports the need for integration of infrastructure and superstructure development. Klapmuts and Stellenbosch Town are considered strategic priorities for the Municipality. The positioning of Stellenbosch Bridge as an economic development hub is key, the basis for which is grounded in the IDP as a strategic implementation document of the Stellenbosch Municipality.

4.2.7 Stellenbosch Local Economic Development Framework (2013)

A Strategic Framework for Local Economic Development was prepared for the Stellenbosch Municipality in 2013. The Framework summarises the key economic development challenges and opportunities within the municipal area as:

- The need to continuously grow the local economy through niche sectors such as services, tourism, agri-processing and the informal sector;
- New investment opportunities have to be promoted, focusing on foreign, up-country and local potential investors;
- The need to increase participation, in particular of the poor and other marginalised groups (women, youth, the disabled and those experiencing geographic exclusion) in mainstream economic activity;

- The critical need for human resource development, both in term of those with limited skills and education, as well as ensuring that high-level skills are developed, attracted and retained in the area to grow the local economy;
- Dramatically changing the largely racially-based land-use pattern and encouraging the location of new economic opportunities where the poor are located and also locating the poor where current economic opportunities exist;
- Mobilising private, public and community resources (institutions, funding and finance) towards growing the local economy;
- Ensuring that the economic benefits from transformation initiatives such as land reform, property development, etc., accrue to the broadest possible number of beneficiaries, in particular those that are poor.

The following focus areas and strategies for local economic development are proposed:

- Spatial areas where growth can best be achieved in areas of greatest need;
- Education and skills development in the niche sectors identified;
- Support for small businesses, the informal sector and emerging entrepreneurs; and
- Enabling sustainable livelihoods, addressing poverty reduction and social welfare support.

The Stellenbosch economy has a broad sector base, where tourism, agriculture and education are the three dominant sectors, but where several other sectors (like manufacturing, construction, financial services and the health sector) also play significant roles (p. 28). However, to achieve this, the dynamics related to sector development and support; infrastructure upgrading and gap-filling; small business and the informal sector; BEE and land reform; and social development support and initiatives related to job creation, poverty, education and health need attention.

Relevance to Stellenbosch Bridge

The proposed Stellenbosch Bridge development is aligned with several requirements and objectives stated in the LED strategy with specific reference to sustaining employment during the construction phase of the project, feed into the construction sector and maintain a semblance of stability and contribute indirectly to enabling sustainable livelihoods, addressing poverty reduction and social welfare support. Small businesses will benefit from the traditional requirements for products, services, security, general maintenance, etc.

4.3 Conclusions

The Stellenbosch Spatial Development Framework and IDP are the primary planning tools for the Stellenbosch area and therefore the proposed development, as it incorporates the provisions of all other broader level plans for the area and therefore forms the initial basis for the economic assessment of the proposed Stellenbosch Bridge development. Stellenbosch town and Klapmuts were identified as spatial areas for priority development over the MSDF planning period are (p. 74).

Our assessment of the spatial planning frameworks of the local, district and provincial authorities suggests that the proposed Stellenbosch Bridge development supports and fits with the spatial planning principles of the Stellenbosch Municipality as indicated in the IDP and SDF from a socio-economic perspective and specifically with the focus on Klapmuts. The Stellenbosch Bridge development is in the delineated urban edge of Klapmuts and the part not included, is earmarked for agriculture.

The proposed project is positioned as a development that is intended to contribute towards business, housing and infrastructure development in the Klapmuts area, but specifically in a node where the community needs private investment to uplift their socio-economic well-being and create more sustainable employment.

5. SOCIO-ECONOMIC AND DEMOGRAPHIC PROFILE OF THE POPULATION IN THE STUDY AREA

5.1 Aligning the study area and available statistics

The approach adopted for the preparation of the socio-economic and demographic profile of communities within the Klapmuts area that surround the proposed site entailed the specification of concentric circles representing areas within 3 km and 6 km from the centre point of the properties proposed for the Stellenbosch Bridge development. **Figure 13** is an accurate indication of the different concentric zones as applied to the municipal area with an exact indication of the proposed location for the development. This approach was used due to the need to ascertain the relative proximity of communities and settlements to the facility to understand the geographical impact of the location on residents in the study area.

The choice of radii for 3 km and 6 km is based on our observations of population distribution, economic activities and likely sources of procurement and labour in the areas surrounding the proposed location for the proposed Stellenbosch Bridge development. We believe that this approach will offer a more realistic socio-demographic and economic profile of the population most likely to be affected by the proposed development.

In the 2011 Population Census Survey (Statistics South Africa, 2013), the statistics for the different zones were based on a combination of the main places (which comprise various sub-places) as defined for the study area. To include the larger population of the study area, the assessment covers the communities with specific reference to "main places" (as defined by Statistics South Africa). The sub-places of 166002001 Drakenstein NU, 167001001 Bennetsville, 167001002 Klapmuts SP, 167001003 Weltevrede Park, 167001004 Mandela City and 167002001 Stellenbosch NU are located within a radius of 3 km from the site. The following additional sub-places are located within 6 km of the site: 167003001 Elsenburg SP and 199002002 Cape Metro NU3. It should be noted that the approach adopted for the assessment offers a relatively accurate indication of the socio-economic and demographic profile of the population residing in the specified zones. The latter statement should also be considered in the context of the nature and scope of the data used for the analysis.

Due to the large Drakenstein NU and Stellenbosch NU areas, it was necessary to allocate a proportion of those areas to the 3 km and 6 km radii. The following table indicates the percentage of the non-urban areas included within the 3 km and 6 km zones:

	Drakenstein Non-Urban		Stellenbosch Non-Urban	
	3 km	6 km	3 km	6 km
Area (non-urban) (ha)	141 439.00	141 439.00	79 355.30	79 355.30
Area included (ha)	636.22	4 085.95	1 534.23	5 013.14
Area Percentage	0.45	2.89	1.93	6.32

5.2 Limitation of the demographic analysis

Several limitations were identified during the study:

- Changes in methodology complicate comparisons between the 2011 and 2001 census years, with specific reference to the analysis of employment by economic sector and occupation. No data is available to assess sector employment and occupation levels for 2011.
- A comparison between the population figures for 2001 (Census), 2007 (Community Survey) and the Census 2011 is not possible due to the limitations of selecting a sample that was extrapolated to the population as was done for the 2007 Community Survey. A significantly larger margin of error would be prevalent when adopting a sample approach vs. a census (which is intended to cover the entire population and not only a selected sample). Different categories were considered for various demographic items in the Census 2011 survey, which hampers any form of comparative assessment.

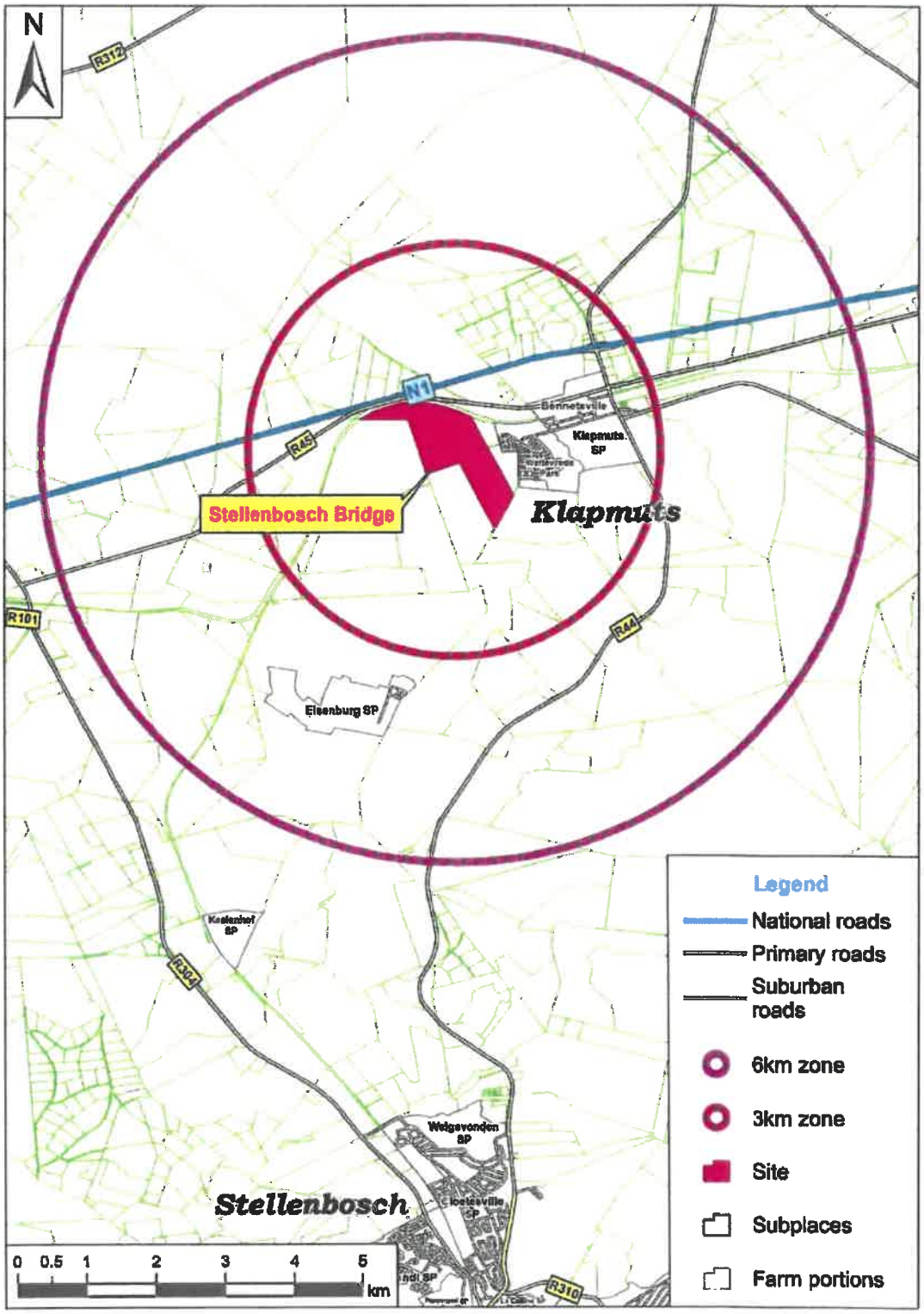


Figure 13: Different concentric zones as applied in the municipal area relative to the location for the proposed Stellenbosch Bridge development.

Source: Prepared from GIS data (Statistics South Africa, 2019)

5.3 Socio-demographic profile of the study area population

The following socio-demographic profile of the study area is based on data from the 2011 National Population Census Survey (Statistics South Africa, 2013). A summarised socio-demographic profile is presented in **Table 3** for the 2011 census year. Note that the population residing within the 3 km zone is very small, therefore the discussion will focus on the 6 km zone, with reference to the population within 3 km where applicable.

An analysis based on the specified concentric zones suggests that 43.19% of the population residing in the area (i.e. within 6 km of the proposed site) live within 3 km the site proposed for development. An assessment based on the population groups suggests that 64.91% of the population that reside within 3 km of the site are Coloured and 31.28% are Black African. Within the 6 km zone, 62.74% of the total population are Coloured, 23.29% are Black African and 12.49% represent White residents.

Table 4: A socio-demographic profile of the study area based on the 2011 Census Survey

		Stellenbosch (Klapmuts)			
		Within 3 km		Within 6 km	
Population:	Black African	2676	31.28%	4 535	23.29%
	Coloured	5553	64.91%	12 215	62.74%
	Asian	25	0.29%	131	0.67%
	White	218	2.54%	2 431	12.49%
	Other	84	0.98%	156	0.80%
	Total	8556	100.00%	19 468	100.00%
Gender:	Male	4 282	50.05%	9 834	50.51%
	Female	4 273	49.95%	9 635	49.49%
	Total	8 556	100.00%	19 469	100.00%
Age classification:	0-18	2 450	28.64%	5 341	27.43%
	19-30	1 713	20.02%	3 878	19.92%
	31-40	1 543	18.03%	3 687	18.94%
	41-50	1 214	14.19%	2 718	13.96%
	51-65	902	10.54%	2 123	10.90%
	Over 65	472	5.51%	1 119	5.75%
	Total	260	3.04%	602	3.09%

Note: Also refer to Section 1.5 with specific reference to the concern related to data validity
Source: Adapted from Statistics South Africa (2013)

5.3.1 Analysis of the study area population

The population of the Stellenbosch Municipal area was estimated at 118 709 in 2001 and 155 733 in 2011, representing an average annual growth of 3.11% (Statistics South Africa, 2003; 2013). **Table 4** indicates the population distribution of residents within 6 km of the site relative to the combined Stellenbosch town and Drakenstein Municipality population for 2011.

The findings suggest that 4.79% of the Stellenbosch/Drakenstein population live within 6 km of the proposed Development. An analysis of the breakdown per population group suggests that Coloured and Black African residents living within 6 km of the site comprise 5.12% and 4.50% of the total Stellenbosch/Drakenstein population, respectively.

Table 5: Breakdown of the population-by-population group for the study area (within 3 km and 6 km) as a percentage of the Stellenbosch town population in 2011

	Black African	Coloured	Asian	White	Total
Within 3 km	2 676	5 553	25	218	8 472
Within 6 km	4 535	12 215	131	2 431	19 312
Stellenbosch/Drakenstein Population	100 679	238 390	1 621	62 701	403 391
Percentage within 3 km	2.66%	2.33%	1.53%	0.35%	2.10%
Percentage within 6 km	4.50%	5.12%	8.09%	3.88%	4.79%

Source: Statistics South Africa (2013)

A discussion of key socio-demographic profile characteristics (population, education and age levels) is provided in the following sections, based on data from the 2011 South African Census (Statistics South Africa, 2013).

5.3.2 Analysis of education levels

An analysis of education levels in the study area for 2011 is provided in **Table 5**. The results indicate that 5.50% of persons living within 3 km of the site had no schooling (including those under the school-age), whereas 5.72% of the population within 6 km of the site had no schooling in 2011. The assessment further suggests that 86.31% of persons living within 6 km of the site received Grade 1 to Grade 12 schooling, whereas 7.97% obtained Matric with a higher diploma or degree qualification.

Table 6: An analysis of education levels for the population per specified zone in 2011

Education category	Within 3 km	Within 6 km
No schooling	419	977
Some primary	2 238	5 006
Completed primary	664	1 447
Some secondary	3 043	5 822
Grade 12/Std 10	1 052	2 459
Higher	197	1 361
Other	0	0
Total	**7 612**	**17 072**

Notes: N/A are excluded together with unspecified
Source: Statistics South Africa (2013)

5.3.3 Analysis of age levels

An analysis of the age levels among the population within 3 km and 6 km is intended to indicate the population that could be considered economically active, i.e. persons between the ages of 19 and 65. The analysis that follows provides a broad indication of age categories for 2011. The findings are provided in **Figure 14** and are based on the zones specified for the analysis.

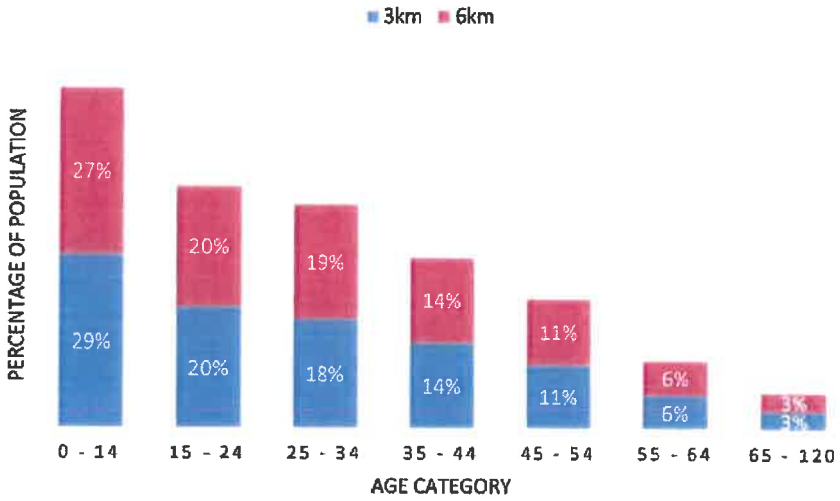


Figure 14: An assessment of percentage contributions to age levels of per identified zone for 2011
Source: Compiled from data provided by Statistics South Africa (2013)

The illustration provided in **Figure 14** indicates that 29% of the population within 3 km of the development site is below 19 years of age, which represents 45.86% of all persons under 19 years of age within 6 km of the site. Our analysis also suggests that 68.35% of the population within 3 km from the site are in the working-age category are between 19 and 65 years of age, while the working group within 6 km of the site represents 69.49% of the total population. The assessment indicates that every 2.16 persons who would normally be considered economically active (i.e. between 19 and 65 years of age), could support another person that is not economically active within 3 km of the site. The latter is slightly lower than the dependency ratio of 2.28 for the population residing within 6 km of the site.

A more detailed assessment of the population presented in **Table 6** suggests that the Coloured and Black African population groups younger than 15 years represent 30.02%and 25.53% of the respective population groups living within 6 km of the site proposed for development.

An analysis of dependency factors suggests that among the Coloured population residing within 6 km of the site, 2.01 persons that have the potential to be economically active, could support another person not considered to be in an age category that represents an economically active person, i.e. younger than 15 years and older than 65 years of age. The dependency figures for the other population groups are 2.63 for Black African and 3.22 for White residents.

Table 7: An assessment of age levels among residents in the different zones in 2011 by population group

Age category	0 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 120	Total
Within 3 km								
Black African	738	588	622	367	210	91	57	2 673
Coloured	1 655	1 056	862	789	653	357	185	5 556
Indian or Asian	7	6	4	5	2	0	0	25
White	43	31	32	35	34	26	16	217
Other	7	33	26	17	3	0	0	86
Total	2 449	1 714	1 546	1 213	901	475	259	8 556

Age category	0 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 120	Total
Within 6 km								
Black African	1 157	1 121	1 013	631	363	155	93	4 532
Coloured	3 667	2 293	1 949	1 697	1 430	793	387	12 217
Indian or Asian	29	31	43	14	11	1	3	131
White	461	389	637	349	310	168	115	2 429
Other	26	43	47	29	10	1	3	159
Total	5 340	3 878	3 690	2 720	2 124	1 118	600	19 469

Note: A category referring to other is excluded
Source: Statistics South Africa (2013)

5.3.4 Analysis of household income levels

Table 7 provides the income ranges for households as defined by the specified 3 km and 6 km radii from the centre of the proposed development. Note that not all the respondents disclosed their income. Of those that did disclose their income, 19.65% of the households residing within 3 km of the proposed development had no income, and 85.69% earned less than R76 801 per annum (excluding households with no income). Within 6 km of the development, 11.91% of the households did not have an income, 55.75% of the households had an annual income of less than R76 801, whereas 3.86% of households declared an income of more than R614 400 per annum.

Table 8: Distribution of annual household income for each specified zone in 2011

Income category	Within 3 km		Within 6 km	
No income	423	19.65%	612	11.91%
R1 - R4 800	67	3.10%	97	1.89%
R4 801 - R 9 600	99	4.62%	162	3.16%
R9 601 - R 19 200	305	14.17%	548	10.67%
R19 201 – R 38 400	519	24.11%	1 084	21.11%
R38 401 – R 76 800	431	20.02%	971	18.91%
R76 801 – R153 600	190	8.83%	598	11.65%
R153 601 - R307 200	74	3.44%	486	9.46%
R307 201 - R614 400	28	1.30%	379	7.39%
R614 401 - R1 228 800	10	0.46%	141	2.75%
R1 228 801 - R2 457 600	4	0.20%	31	0.61%
R2 457 601 and more	3	0.12%	26	0.50%
Grand Total	2 152	100.00%	5 134	100.00%

Source: Adapted from Statistics South Africa (2013)

5.3.5 Employment and skills level analysis

A perspective of employment for the different zones in the Municipal area is provided in **Table 8** with specific reference to the number of employed, unemployed and not-economically active persons per population group.

Table 8 indicates that 54.67% of the total population residing within 3 km of the site is employed, while 61.45% within 6 km are employed. The proportion of employed for the Coloured and Black African groups are 60.29% and 54.25% of the total population group within 6 km, respectively.

Table 9: An assessment of employment by population group for 2011 based on specified radii from the site proposed for development

Category of employment	Black African	Coloured	Indian/ Asian	White	Other	Grand Total
Klapmuts: Within 3 km						
Employed	966	1 988	13	106	63	3 137
Unemployed	272	309	1	5	5	593
Not economically active	640	1 415	3	46	10	2115
Total	**1 879**	**3 713**	**17**	**158**	**79**	**5 845**
Dependency ratio per population group	*1.06*	*1.15*	*3.01*	*2.06*	*4.16*	*1.16*
Klapmuts: Within 6 km						
Employed	1 781	4 921	67	1 444	101	8 313
Unemployed	367	611	8	58	8	1 052
Not economically active	1 136	2 629	24	351	22	4 162
Total	**3 283**	**8 162**	**99**	**1 853**	**131**	**13 527**
Dependency ratio per population group	*1.19*	*1.52*	*2.07*	*3.53*	*3.41*	*1.59*

Note: Not applicable excluded
Also refer to Section 4.2 with specific reference to the concern related to data validity
Source: Statistics South Africa (2013)

An assessment of the dependency ratios for the zones is based on the premise that for each person who is employed, a factor of people is unemployed or economically inactive. The findings of the research for each of the zones suggest a dependency ratio of 1.16 and 1.59 for the total population within 3 km and 6 km, respectively. This implies that every employed resident has to support more than one unemployed or economically inactive person. The ratio for the Coloured and Black African population groups within 6 km of the site is 1.52 and 1.19, respectively.

5.3.6 Formal and informal sector employment

A further assessment of employment levels is provided by the economic sector and by population group for the population residing within 3 km and 6 km from the designated site. The findings presented in **Table 9** indicate the percentage employed per population group for the specified zones. Indications are that 37.31% of employed people within 6 km, reside within 3 km of the site.

The findings applicable to the zone within 3 km of the site suggest that the formal sector employs 76.32% of the economically active population, followed by the informal sector with 12.71%. Our assessment also suggests that 74.58% of the people within 6 km of the site are employed in the formal sector, whereas 15.56% within 6 km of the site are employed in the informal sector.

Table 10: Classification of employment per economic sector, industry and population group in 2011 for 3 km and 6 km from the sites proposed for the development

Sector	Within 3 km	Percentage Within 3 km	Within 6 km	Percentage within 6 km
Formal sector employment				
Black African	720	23.58%	1 312	16.03%
Coloured	1 470	48.15%	3 504	42.82%
Indian or Asian	12	0.39%	61	0.75%
White	80	2.62%	1 151	14.07%
Other	48	1.57%	75	0.92%

Sector	Within 3 km	Percentage Within 3 km	Within 6 km	Percentage within 6 km
Informal sector employment				
Black African	117	3.83%	285	3.48%
Coloured	247	8.09%	829	10.13%
Indian or Asian	1	0.03%	1	0.01%
White	15	0.49%	147	1.80%
Other	8	0.26%	11	0.13%
Private households				
Black African	68	2.23%	113	1.38%
Coloured	247	8.09%	531	6.49%
Indian or Asian	0	0.00%	4	0.05%
White	15	0.49%	149	1.82%
Other	5	0.16%	10	0.12%
Total	**3 053**	**100.00%**	**8 183**	**100.00%**

Note: Excluded from the figures above are categories for Do not know, Unspecified, Not applicable
Source: Adapted from Statistics South Africa (2013)

6. PERCEPTIONS AND CONCERNS OF KEY STAKEHOLDER GROUPS

6.1 Introduction

The perceptions and concerns of interested and affected parties represent an important contribution to the formal EIA process. The informal inputs obtained for the socio-economic study are also essential to understand perceptions and concerns from a more qualitative perspective. Primary interviews with stakeholders or their representatives are therefore essential to understand the concerns of the interested and affected parties, as well as the perceived benefits of the proposed project. Stakeholders were identified that could offer perspectives on the potential impacts associated with the proposed Stellenbosch Bridge development. These included adjacent or nearby land-users, the local ward councillor, as well as representatives of community organisations or nearby developments. Due to the 21-day lockdown caused by the COVID-19 pandemic (now extended to 35 days), face-to-face interviews were not possible and electronic communication had to be used to elicit input from Interested and Affected Parties and other stakeholders.

6.2 Neighbouring landowners and interest groups

We used a list of Interested and Affected Parties provided by the EAP specifically for the proposed Light Industrial Development component, as they would also be relevant for other components of the Stellenbosch Bridge project. Representatives that provided email addresses, were contacted by email on Monday, 30 March 2020, with the following request for input to be received by Friday, 17 April 2020:

Socio-economic input for proposed Stellenbosch Bridge development

Multi-Purpose Business Solutions are independent consultants appointed to prepare a Socio-economic Impact Assessment for the proposed Stellenbosch Bridge development on the western side of Klapmuts. As an Interested and Affected Party, we invite you to provide written inputs/comments on the proposed development with specific reference to socio-economic matters. These may include positive and negative impacts related to the construction phase (the introduction of bulk services and subsequent construction of dwellings) and the operational phase (i.e. once the dwellings are complete and occupied). Examples of socio-economic impacts are job creation, benefits to the local economy, vehicular traffic, sense of place, visual impacts, nuisance factors (such as dust and noise), crime and surrounding land values.

Your inputs are invaluable in our preparation of this assessment and I therefore encourage you to provide any input of relevance by Friday, 17 April 2020 by return e-mail (marinda@mpbs.co.za). If you would prefer to discuss this in person, we can schedule a phone call or Skype discussion during the period of the lockdown (kindly propose a convenient date and time).

Please note this is an informal process of obtaining primary inputs from persons, stakeholders and organisations and does not form part of the EIA process that is statutory in terms of the EIA regulations. Your comments are included in our report, which will be made available to Interested and Affected Parties registered through the EIA process. We do not require any registration and the process is not a requirement in terms of regulations, but it is important in the context of the nature and scope of the study that we prepare and demonstrate the socio-economic impacts to decisions makers and other stakeholders.

Emails were sent to the following Interested and Affected parties:

- Muldersvlei Estates (Pty) Ltd (Farm Re/1460)
- Delheim Wines (Pty) Ltd (Farm 1/1063)
- Le Bonheur Wine Estate (Pty) Ltd (Farm Re/744)
- Stellenbosch Wine and Country Estate (Farm 5/742)
- Babylonstoren (Pty) Ltd (Farm 7/774)

- Culture Fresh (Pty) Ltd (Farm 5/737)
- Stellenbosch Interest Group
- Stellenbosch Ratepayers
- Stellenbosch Heritage Foundation
- Ward Councillor: Stellenbosch Municipality (Ward 18)

No feedback was received by 9 April 2020. A courtesy email reminder will be sent to non-responders on 14 April 2020. If no response is obtained by 17 April 2020 and where possible, telephonic interviews will be conducted with representatives that also provided telephone contact details. The inputs obtained through this process and comments received through the EIA process will be included in an update of the Socio-economic Impact Assessment.

6.3 Other stakeholders

6.3.1 Ward councillor – Ward 18

Stellenbosch Bridge representatives Mr Daniël Kriel and Mr Lorne Dawson held an information session with Mrs Emily Fredericks, the Ward Councillor for Klapmuts (Ward 18) on 20 January 2020. Following a presentation on the proposed development, Mrs Fredericks provided some background on the Klapmuts community and mentioned the establishment of the Klapmuts Community Forum among a group of community leaders. The Stellenbosch Bridge representatives Daniël Kriel and Lorne Dawson highlighted the potential impact of the development on the community in terms of the general upliftment of the area and potential job opportunities. The Stellenbosch Bridge representatives indicated that the proposed development would increase the local labour uptake from 2% to 3-4% and will make funding available to upskill the workers.

The Stellenbosch Bridge representatives indicated that a community liaison officer (CLO) will be appointed to assist with these initiatives. Mrs Fredericks stated a notice in this regard should be published and that her office would provide input in the review of applicants. Although there is a database of job seekers in Klapmuts, Mrs Fredericks advised that a basic form should be compiled and distributed within the community to gather information for an updated list. Mr Dawson indicated that the Stellenbosch Bridge developers will employ Ranyaka (currently working in Klapmuts) to consolidate and help set out a strategy on how to engage and assist the community. One of the priorities for Stellenbosch Bridge would be to clean up the streets and parks in Klapmuts, and install a security fence/wall along the boundary of the property where it meets the existing community. Mrs Fredericks stated that this would be important, but liaison with the homeowners and the Klapmuts Community Forum would be essential. She undertook to organise a meeting to inform the community about the project.

6.3.2 Klapmuts Community Forum

Stellenbosch Bridge representatives Mr Daniël Kriel and Mr Lorne Dawson met with the Ward Councillor, five representatives of the Klapmuts Community Forum (KCF) and a Klapmuts community leader, Mr John Baker, on 5 February 2020. The KCF supported the proposed increase in local labour uptake and upskilling of workers. Mr Daniël Kriel emphasised that Stellenbosch Bridge is a long-term project for the whole community to benefit from and grow with. Stellenbosch Bridge would therefore like to get involved in the community, which require the developers to identify the major areas of concern for the community and ways in which they could get involved. The KCF noted that security was a major issue; since it is a small community, everyone knows each other and trusted community members should therefore be included in the security strategy. A number of local residents have worked in this construction industry and a list of potential candidates should be compiled.

Initial security risks for the development were highlighted to be along the community boundary with the Stellenbosch Bridge site. The KCF advised that a solid wall should be build where the houses were located directly against the boundary, and confirmed that they could act as a liaison with the homeowners in this area. A number of community initiatives were discussed and it was agreed that any future initiative from Stellenbosch Bridge should be aligned with a larger strategy to uplift the community effectively.

7. ASSESSMENT OF IMPACTS

7.1 Introduction

Various qualitative and quantitative impacts are attributed to a property-related development project; these impacts can be divided between those applicable to the pre-construction, construction or post-construction (operational) phases. Indications are that construction (including the introduction of the requisite infrastructure) for Applications 1 and 2 of the proposed Stellenbosch Bridge development will be phased over 4 years with other phases of the development to be implemented thereafter.

Potential negative socio-economic impacts during construction and/or operations associated with the proposed development are as follows:-

- Impact on vehicular traffic (construction and operations);
- Nuisance factors, such as dust and noise (construction);
- Influx of job seekers (construction);
- Increase in local crime (construction and operations);
- Sense of place (operations);
- Impact on surrounding land values (operations); and
- Infrastructure capacity (operations)

Potential positive socio-economic impacts include the following:-

- Addressing a growing demand for housing (operations);
- Creating new employment opportunities (construction and operations);
- Creating new business opportunities (operations);
- Local economic income (construction); and
- Revenue accruing to local authorities (operations).

Following NEMA EIA Regulations (2014, as amended), the potential impacts of the preferred development plan (Alternative 1) are assessed and compared with the No-Go Alternative for each of the Applications:

- **Application 1:**
  - **Alternative 1** - Reallocation of existing rights on Portion 1 (73 ha), 1577 residential + 3 450 m² bulk and 24 550 m² bulk (Retail & Commercial)
  - **No-Go Alternative**, which implies that the *status quo* is maintained.
- **Application 2:**
  - **Alternative 1** - Rezoning & Subdivision of Portion 2 (22 ha), Light Industrial (94 000 m² bulk)
  - **No-Go Alternative**, which implies that the *status quo* is maintained.
- **Application 3:**
  - **Alternative 1** - Densification on Farm 742/5 (2 500 apartments, 150 000 m² bulk)
  - **No-Go Alternative**, which implies that the *status quo* is maintained
- **Application 4:**
  - **Alternative 1** - Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106 ha)
  - **No-Go Alternative**, which implies that the *status quo* is maintained.

Cumulative impacts refer to any other additional development(s) as well as existing activities within the immediate area that could compound any positive or negative impacts associated with the proposed development. This particularly relates to the ongoing/planned residential developments just north of Klapmuts and along the R44 south-east of Klapmuts.

Where applicable, appropriate **mitigation measures** are proposed to reduce the significance of the specific impacts. The different impacts are assessed using the impact rating methodology indicated in Annexure B. Annexure C provides a summary of the different impacts and their significance before and after the implementation of the proposed mitigation measures and in the context thereof, highlights the residual impact.

The following are included in the Impact Ratings:

- **Degree to which impact can be avoided:** Impacts can either be **fully** avoided (impact is completely avoidable), **partly** avoided (impact is avoidable with moderate mitigation and/or management) or the impact is **unavoidable** (the impact is cannot be avoided even with significant mitigation measures and/or management).
- **Degree to which impact can be managed:** Impacts can either be **fully** managed (impact is completely manageable), **partly** managed (impact is manageable with moderate mitigation and/or management) or the impact is **unmanageable** (the impact cannot be managed even with significant mitigation measures).
- **Degree to which an impact can be mitigated:** The degree of mitigation can either be **high** (the impact can be **fully** mitigated), **moderate** (the impact can be **partly mitigated**) or **not mitigated at all**.
- **Residual impacts:** Residual impacts are those impacts that remain following the implementation of mitigation measures.

7.2 Construction Phase

The negative qualitative impacts during the construction phase mostly relate to large construction vehicles on access roads, noise and dust, the potential influx of job seekers, as well as criminal activities linked to the presence of construction workers and related activities at the development site. Potential positive impacts include temporary employment opportunities and a contribution towards local economic development, with specific reference to the construction, retail and services sectors and industries within the local economy. Note that the duration of the impacts is based on a medium-term construction period of 5 years.

7.2.1 Vehicular traffic due to construction activities

Nature of impact

The movement of large construction vehicles will affect traffic flows and residents along the access routes.

Scope and consequence of impact

The proposed development is relatively large and several large construction vehicles will have to access the site daily during the construction phase. This will impact the access routes, in particular the R44 and Old Paarl Road that already carry a high vehicular load.

Application 1

A Traffic Impact Statement (TIS) was prepared by the project traffic engineer (iCE Group, 2019a), but no reference to the traffic impact during the construction phase was made. The TIS noted that the conditions of 2011 approval for the Klapmuts Hills development included several external road upgrades for the different phases (iCE Group, 2011). Of these conditions, signalisation of R101/R44 intersection and turning lanes at R44 / Elsenburg Road intersection have since been implemented. Based on a trip generation calculation, it is expected that the road improvements as

per the 2011 conditions of approval will remain applicable as the extent of the newly proposed development is less than previously approved. However, the conditions should be realigned with the revised development roll-out.

Application 2

The Traffic Impact Statement for Application 2 (ICE Group, 2019b) also did not refer to the traffic impact during the construction phase. The TIS concluded that only minor road improvements are required to accommodate the background traffic during the operational phase.

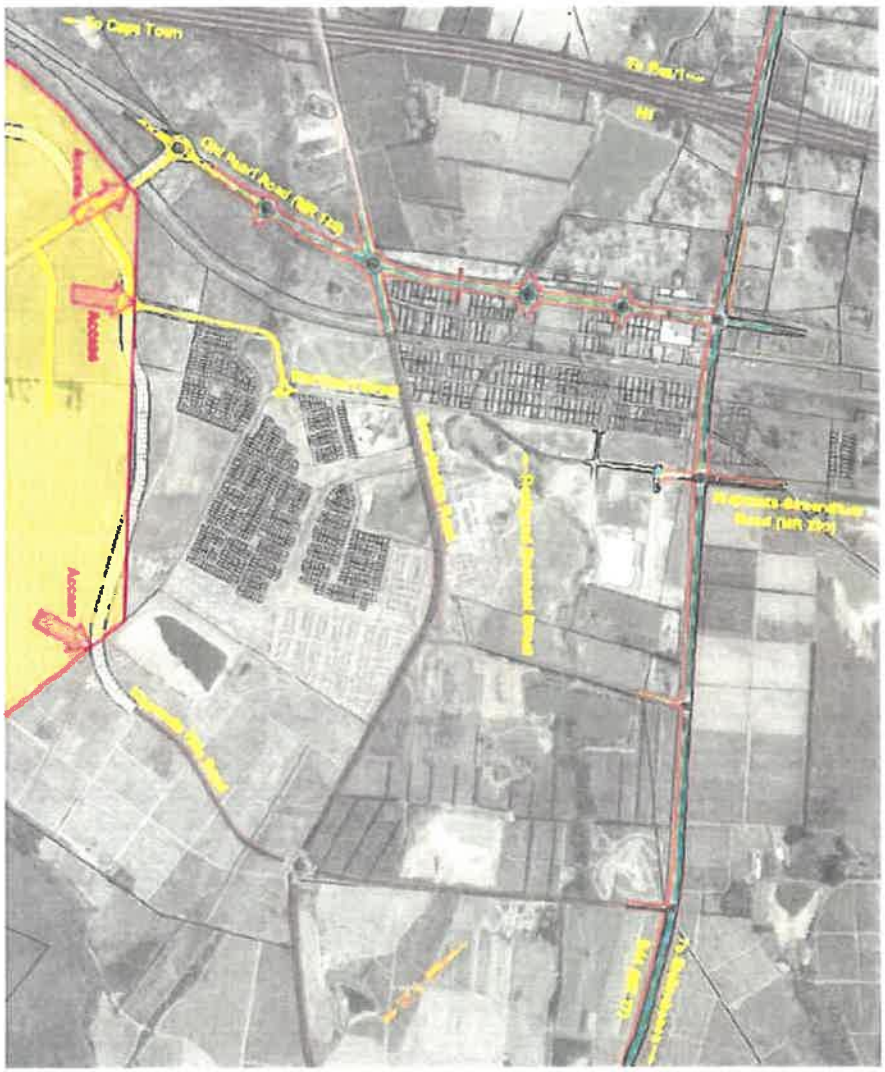


Figure 15: Existing and proposed access routes to Stellenbosch Bridge
Source: ICE Group, 2019a

Applications 3 & 4

No Traffic Impact Assessment was done for Applications 3 and 4.

No-Go Alternative

Without the proposed development, there will be no impact on traffic flows related to the site.

Cumulative Impact

Overlapping or parallel construction projects in the area (e.g. Application 1 and 2) would increase the number of construction vehicles along the access routes, although the phasing of the development should spread the impact with less intensity over 5 years. However, other ongoing or proposed developments in the Klapmuts area will also utilise either the R44 or Old Paarl Road for the movement of construction vehicles and delivery of building materials.

Mitigation measures

The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations. These improvements should also ease the traffic flows during the estimated 5-year construction phase. However, it is not clear whether these upgrades will be done prior to or during the construction phase.

Impact Rating

The 2011 TIA and 2019 TISs neither referred to the construction phase nor provided an impact rating for the proposed Applications. However, based on our interpretation of these reports, the impact is **unavoidable**, but can be **partly managed**, i.e. the impact can be **partly mitigated** through the implementation of the proposed upgrades. Our assessment is thus that the residual impact will be **medium negative** following the implementation of the proposed upgrades prior to the construction phase.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	10	2	3	0	1	5	80	M-H (-)	[illegible]	6	2	3	0	1	5	60	M (-)	M-H (-)
Application 2	10	2	3	0	1	5	80	M-H (-)	[illegible]	6	2	3	0	1	5	60	M (-)	M-H (-)
Application 3																		
Application 4																		
No-Go	-	-	-	-	-	-	-	-	-									

7.2.2 Nuisance factors (dust and noise)

Nature of impact

Construction activities create dust and noise at the development site that would affect nearby receptors.

Scope and consequence of impact

During the introduction of bulk services and the construction of top structures, large earth-moving equipment and concrete mixers will generate noise and dust. Although this will be limited to the construction site, the prevailing winds will carry dust and noise towards the surrounding properties and thus affect the residents, their living conditions and the ecological environment.

Most of the dust will be generated during the earth-moving phase when the site is cleared from vegetation and the services are introduced. The receptors likely to be affected are mainly the residents of Klapmuts to the east and farm residents towards the south and west. Given the size of the development and the phased approach, it is likely that dust (and noise to a lesser extent) will be a nuisance to surrounding landowners throughout the construction phase.

Application 1

The footprint for Application 1 is significant in size and located quite close to an existing residential area, with the north-westerly wind that would carry the dust to nearby residents.

Application 2

The footprint for Application 2 is smaller than for Application 1, but the site is adjacent to an existing residential area whose residents will be significantly affected by dust and noise.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

There will be no dust and noise related to construction at the development sites, but other construction activities in the area would affect nearby receptors However, if sand or gravel mining activities would resume on the site, it may also result in noise and dust.

Cumulative Impact

Additional construction activities in the immediate area will compound the nuisance factors if they would coincide or overlap with the construction phases of Stellenbosch Bridge.

Mitigation measures

Dust and noise emissions during the construction period should be minimised through a Construction Environmental Management Plan (CEMP) for the development that would include measures and trigger mechanisms to mitigate any potential impacts to nearby receptors. For example, site construction roads and excavated materials should be sprayed with an eco-friendly dust suppression liquid during dry periods to mitigate against the formation of dry dust particles.

Impact Rating

The impact **is unavoidable**, but can **be partly managed**; i.e. the impact can be **partly mitigated**. The residual impact will be **medium negative** for both Applications 1 and 2 following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL
Application 1	8	2	2	0	1	5	65	**M (-)**	**M-H (-)**	6	2	2	0	1	5	55	**M (-)**	**M (-)**
Application 2	8	2	2	0	1	5	65	**M (-)**	**M-H (-)**	6	2	2	0	1	5	55	**M (-)**	**M (-)**
Application 3																		
Application 4																		
No-Go	-	-	-	-	-	-	-	-	-									

7.2.3 Influx of job seekers

Nature of impact

An influx of job seekers will lead to competition with local residents for employment opportunities.

Scope and consequence of impact

Local people skilled in earth-moving and construction activities can be employed during the construction phase, with additional opportunities associated with security, transport and related services. Given the nature and scope of the development, contractors with an established workforce will be appointed on the project. Combined with very strict security rules, this would discourage casual labourers looking for employment.

While the influx of people in search of employment is not in itself a social impact, the consequence of such movement can result in social impacts. These impacts include the disruption of local community networks and the cohesive social fabric that exists within communities, an increase in crime levels and disruptions to social services. Construction work on the proposed project is limited to a specified period and non-local construction labourers may find themselves stranded in the area after the construction phase, resulting in more competition for employment. This could also increase the demand for housing and social services over the long term.

An influx of casual workers residing in the Winelands District and Drakenstein Municipality is most likely, but an influx from Kraaifontein and Joostenbergvlakte area in the Cape Town Metropolitan area is also possible. The Winelands experiences a high level of unemployment, with a low-income community within walking distance of the Stellenbosch Bridge site. Our socio-demographic analysis (refer to Section 5) indicates that 7.78% of the working-age population residing within 6 km of the site were unemployed in 2011. However, the Stellenbosch IDP (2016/17) estimated the unemployment rate in Ward 18 (which includes Klapmuts) at 16.9%, which could be ascribed to lower levels of employment among residents of the low-income and informal settlements that developed since 2011.

Application 1

As discussed in Section 7.2.5, the proposed development will require between 1 023 and 1 125 temporary workers per annum with low, medium or highly specialised skills during the construction phase related to Application 1. Its location close to an informal settlement may attract job seekers from the immediate area rather than further away.

Application 2

The proposed development will require between 1 352 and 1 487 temporary workers per annum. Similar to Application 1, its proximity to the informal settlement may attract more local job seekers.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed Stellenbosch Bridge development, there will be no influx of job seekers linked to the site. However, other construction activities in the area (e.g. at the Distell site) may attract job seekers that will settle in Klapmuts.

Cumulative Impact

Given the high unemployment levels in the Stellenbosch and Drakenstein areas, construction projects in the area would continue to attract job seekers.

Mitigation measures

Contractors need to show a commitment to employ people from the Stellenbosch and Drakenstein Municipalities whenever possible. The Developer should consider this as one of the pre-qualification requirements for tendering.

Impact Rating

The impact is **unavoidable**, but can be **fully managed**; i.e. the impact can be **fully mitigated**. The residual impact will be **medium negative** for both Applications 1 and 2 following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	8	2	2	0	1	5	65	**M (-)**	**M-H (-)**	6	2	2	0	1	5	55	**M (-)**	**M (-)**
Application 2	8	2	2	0	1	5	65	**M (-)**	**M-H (-)**	6	2	2	0	1	5	55	**M (-)**	**M (-)**
Application 3																		
Application 4																		
No-Go	-	-	-	-	-	-	-	-	-									

7.2.4 Increase in local crime

Nature of impact

The presence of construction activities may contribute to an increase in local crime.

Scope and consequence of impact

There is a general perception that local crime increases in areas where construction activities occur. This may include, but is not limited to on-site petty theft, theft of building material, on-selling of security information, or burglary and theft at nearby properties. The presence of construction workers and vehicles generally increases the risk of criminals entering the construction site undetected.

According to the SAPS Crime Statistics (SAPS, 2019), various types of burglary and theft dominated in the Klapmuts area (65% of all incidents), followed by contact crimes (murder, sexual offences, attempted murder, common assault, common robbery and robbery with aggravated circumstances). There is also a high incidence of drug-related crime, although there was a significant decline in the number of cases, i.e. 216 cases in 2018/2019 versus 342 for 2017/2018. However, there has been a relatively high level of malicious damage to property, with 97 incidences reported in 2918/2019.

The Klapmuts Community Forum (refer to Section 6.3.2) indicated that trusted community members should be included in the security strategy as everyone in Klapmuts know each and a number of local residents have worked in this construction industry. Furthermore, the Klapmuts Community Forum advised that a solid security wall should be built where houses were located directly against the Stellenbosch Bridge boundary.

Application 1 & 2

Both applications entail significant construction activities that could attract criminals in search of easy targets. The proximity of the informal settlement could represent a particular concern to the developers, but there could also be an influx of criminals from outside the area.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, there would be no criminal activities linked to the sites. However, any existing security problems in the area may continue or may be influenced by activities unrelated to the proposed development.

Cumulative Impact

Given the high unemployment rate in the Stellenbosch and Drakenstein Municipalities, it is likely that a high level of construction activities will attract criminals from and to the area.

Mitigation measures

Co-operation between the Developer and contractors is essential to ensure that the area around the proposed development remains secured during construction. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols will minimise the risk.

Impact Rating

The impact **is unavoidable**, but can **be fully managed**; i.e. the impact can be **fully mitigated**. The residual impact will **be low negative** for both Applications 1 and 2 following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	8	2	1	1	1	4	52	**M (-)**	**M (-)**	4	2	1	1	1	4	36	**L (-)**	**L (-)**
Application 2	8	2	1	1	1	4	52	**M (-)**	**M (-)**	4	2	1	1	1	4	36	**L (-)**	**L (-)**
Application 3																		
Application 4																		
No-Go	-	-	-	-	-	-	-	-	-									

7.2.5 Temporary employment opportunities

Nature of impact

Temporary employment opportunities for people with different types and levels of skills will be created during the construction phase.

Scope and consequence of impact

Various employment opportunities would accrue due to the construction of the top structures with some employment being associated with the introduction of bulk and internal services. Direct employment associated with the construction will vary depending on the structure. For the construction of a dwelling, typically 8 to 12 workers per unit are required, but they could work on two units at a given time. The following analysis only accounts for direct employment opportunities, although some indirect and induced opportunities will also be realised for the duration of the construction period due to multiplier effects and local businesses will benefit as a consequence.

The assessment of the contribution to employment is at best very risky as the results are driven largely by its assumptions. For an employment analysis for the Stellenbosch Bridge development, the following assumptions were applied:

- The structure and composition of the Western Cape economy will remain unchanged. This is necessary to enable the use of multiplier analyses.
- No significant political and other administrative changes will take place on a national or provincial level.
- A period of 4 years is assumed for the assessment of employment (Source: Stellenbosch Bridge).
- The supply of skilled labour will be a limiting factor in the construction process.

Demand for labour (employment) in economic terms is considered as a derived demand; a forecast for labour demand can thus be derived from the planned increase in spending. The basic assumption focuses on the relationship between growth in nominal spending and growth in labour demand. If growth in labour demand equals the growth in nominal spending, labour productivity will stay constant. If labour productivity increases, the demand for labour will grow at a slower rate than nominal spending.

Three scenarios are evaluated:

1. It is assumed that productivity stays constant and the additional labour demand follows the long-term trend of employment per Rand Million of Gross Value Added considered from 1995 (**Figure 16**) for the Construction Sector of the Western Cape and Stellenbosch Municipal area.
2. Labour productivity increases per annum and labour demand thus increases by 0.90 using an adjusted power function trend.
3. Labour demand is forced to increase by 1.1 above the long-term trend, which is caused by external influences. Only total labour demand will be considered; no race, gender or skill level is considered. It is also assumed that the majority of new job opportunities are created only for the year in which the capital expenditure occurs.
4. It is assumed that some job opportunities are more permanent. The ratio of capital expenditure in a specific year to total capital expenditure over 16 years is used to determine the "carry forward" number of jobs created in a specific year. In short, it means that if capital expenditure is lower than the previous year, there will be a reduction in temporary jobs or losses.

The additional employment from Year 1 to Year 2, etc., depends on two factors, namely the capital expenditure of that year as well as the trend value as derived from **Figure 16**. It is imperative to understand that the phasing of the projects results in an incremental increase in the number of jobs created. Some overlap between the phases may occur, resulting in less total employment than the sum over the construction period.

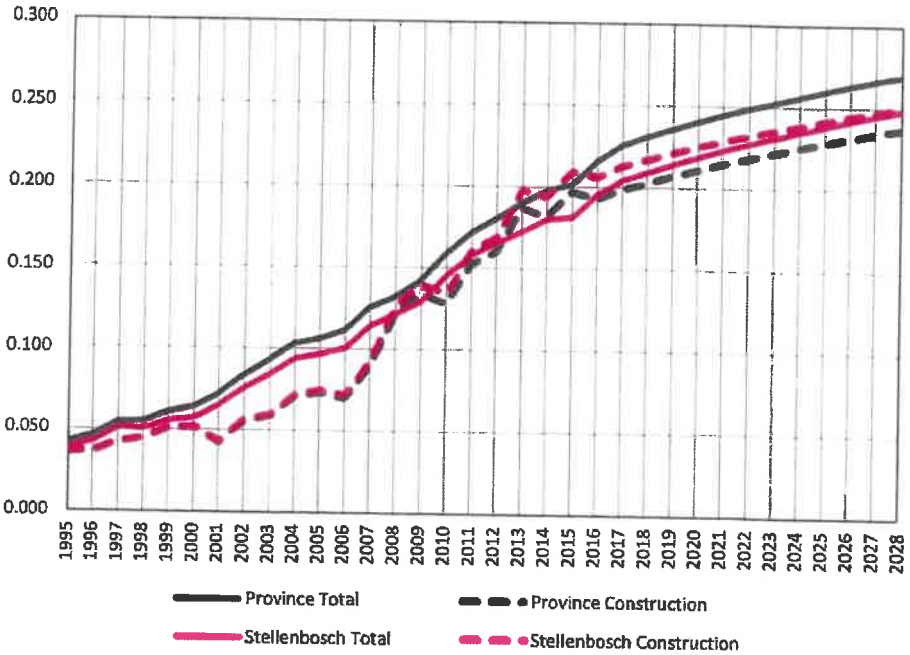


Figure 16: **R million of GVA at current prices per employee trend for the Construction Sector of the Western Cape and Stellenbosch Municipal Area with forecasts from 2019 to 2028 estimated by fitting an adjusted linear function trend**

Source: Derived from Quantec data (2019), own calculations

Note: Provice or Stellenbosch Total refers to the GVA per employee trend for the entire economy.

APPLICATION 1

Figure 17 indicates the number of jobs that could be sustained per annum by the development and aligned with the estimated capital expenditure within the Stellenbosch Municipal economy for Scenario 1: Constant Productivity for Application 1.

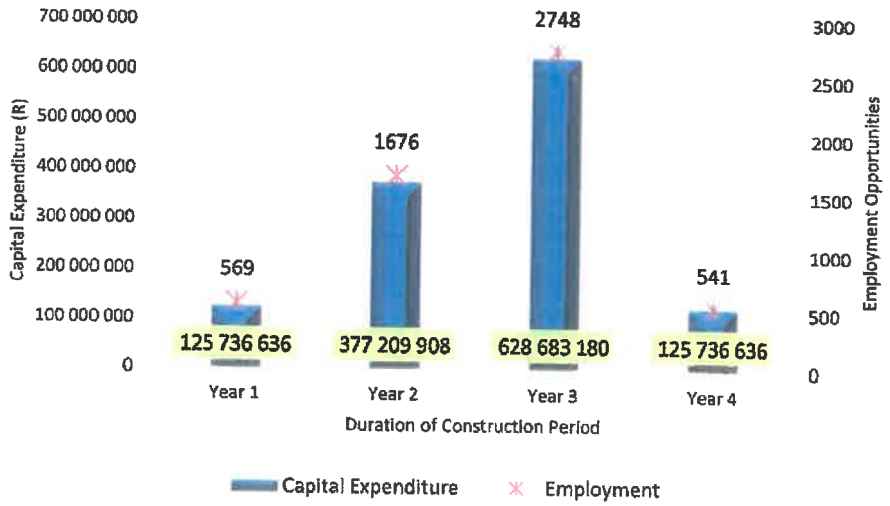


Figure 17: **Nett job opportunities aligned with capital expenditure for the Stellenbosch Municipal area for Scenario 1: Constant Productivity related to Application 1**

Source: Derived from Quantec data (2019), own calculations

Employment opportunities for the Stellenbosch Municipal area

Table 11 indicates that in terms of Application 1 of the Stellenbosch Bridge project, 1 384 jobs per annum in the Stellenbosch Municipal area if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 1 522 jobs could be sustained per annum over 4 years envisaged for the construction. The additional employment from Year 1 to Year 2, etc., depends on two factors, namely the capital expenditure of that year as well as the trend value as derived from **Figure 16**.

Table 11: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices for the Stellenbosch Municipal area for Application 1

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	125.74	125.74	125.74			
	Employment in 2018	4036	4036	4036	Employment contribution per year		
Year	Trend value Stellenbosch: Construction						
1	0.22116	4605	4548	4661	569	512	625
	CAPEX Year 2	377.21	377.21	377.21			
2	0.22508	6280	6056	6505	1676	1508	1844
	CAPEX Year 3	628.68	628.68	628.68			
3	0.22877	9029	8529	9528	2748	2473	3023
	CAPEX Year 4	125.74	125.74	125.74			
4	0.23226	9570	9017	10123	541	487	595
	Total				5534	4981	6087

Source: Quantec data (2019), own calculations

Employment opportunities for the Western Cape Province

The results summarised in **Table 12** indicate total employment for the Western Cape Province given the assumptions listed above. The realistic outcome is probably the first scenario given the assumptions applied in the analysis. Based on sound business practices, the second scenario with increased productivity and thus lower labour demand, is preferable. The findings of the employment analysis are considered in the context of Application 1 with capital expenditure phased in over 4 years. Application 1 of the Stellenbosch Bridge development could sustain on average 1 474 jobs per annum if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 1 621 jobs could be sustained per annum over 4 years of the construction period.

Table 12: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices: Western Cape Province for Application 1

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	125.74	125.74	125.74			
	Employment in 2018	159715	159715	159715	Employment contribution per year		
Year	Trend value Western Cape: Construction						
1	0.20702	160322	160262	160383	607	547	668
	CAPEX Year 2	377.21	377.21	377.21			
2	0.21108	162109	161870	162349	1787	1608	1966
	CAPEX Year 3	628.68	628.68	628.68			
3	0.21492	165035	164503	165567	2925	2633	3218
	CAPEX Year 4	125.74	125.74	125.74			
4	0.21855	165610	165020	166199	575	518	633
	Total				5895	5305	6484

Source: Quantec data (2019), own calculations

APPLICATION 2

Figure 18 indicates the total number of jobs that could be sustained per annum by the development and aligned with the estimated capital expenditure within the Stellenbosch Municipal economy for Scenario 1: Constant Productivity for Application 2.

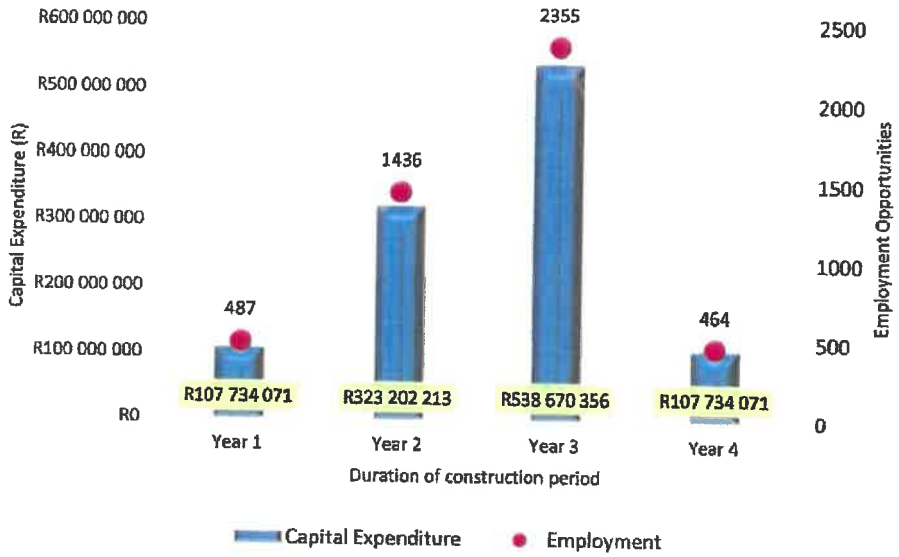


Figure 18: Nett job opportunities aligned with capital expenditure for the Stellenbosch Municipal Area for Scenario 1: Constant Productivity for Application 2

Source: Derived from Quantec data (2019), own calculations

Employment opportunities for the Stellenbosch Municipal Area

Table 13 indicates that Application 2 could sustain on average 1 186 jobs per annum in the Stellenbosch Municipal Area if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 1 304 jobs could be sustained per annum over 4 years.

Table 13: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices for the Stellenbosch Municipal Area for Application 2

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	107.73	107.73	107.73			
	Employment in 2018	4036	4036	4036	Employment contribution per year		
Year	Trend value Stellenbosch: Construction						
1	0.22116	4523	4474	4572	487	438	536
	CAPEX Year 2	323.20	323.20	323.20			
2	0.22508	5959	5767	6151	1436	1292	1580
	CAPEX Year 3	538.67	538.67	538.67			
3	0.22877	8314	7886	8742	2355	2119	2590
	CAPEX Year 4	107.73	107.73	107.73			
4	0.23226	8778	8303	9252	464	417	510
	Total				4742	4267	5216

Source: Quantec data (2019), own calculations

Employment opportunities for the Western Cape Province

The results summarised in **Table 14** indicate total employment for the Western Cape Province given the assumptions listed above. The realistic outcome is probably the first scenario given the assumptions applied in the analysis. Based on sound business practices, the second scenario with increased productivity and thus lower labour demand is preferable. The findings of the employment analysis are considered in the context of the entire development with capital expenditure phased in over 4 years. For Application 2 of the Stellenbosch Bridge development, an average of 1 263 jobs opportunities per annum could arise if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 1 389 jobs could be sustained per annum over 4 years of the construction period.

Table 14: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices: Western Cape Province for Application 2

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	107.73	107.73	107.73			
	Employment in 2018	159715	159715	159715	Employment contribution per year		
Year	Trend value Western Cape: Construction						
1	0.20702	160235	160183	160287	520	468	572
	CAPEX Year 2	323.20	323.20	323.20			
2	0.21108	161767	161561	161972	1531	1378	1684
	CAPEX Year 3	538.67	538.67	538.67			
3	0.21492	164273	163817	164729	2506	2256	2757
	CAPEX Year 4	107.73	107.73	107.73			
4	0.21855	164766	164261	165271	493	444	542
	Total				5051	4546	5556

Source: Quantec data (2019), own calculations

APPLICATION 3

Figure 19 indicates the total number of jobs associated with Application 3 that could be sustained per annum is aligned with the estimated capital expenditure within Stellenbosch Municipal economy regarding Scenario 1: Constant Productivity for Application 3.

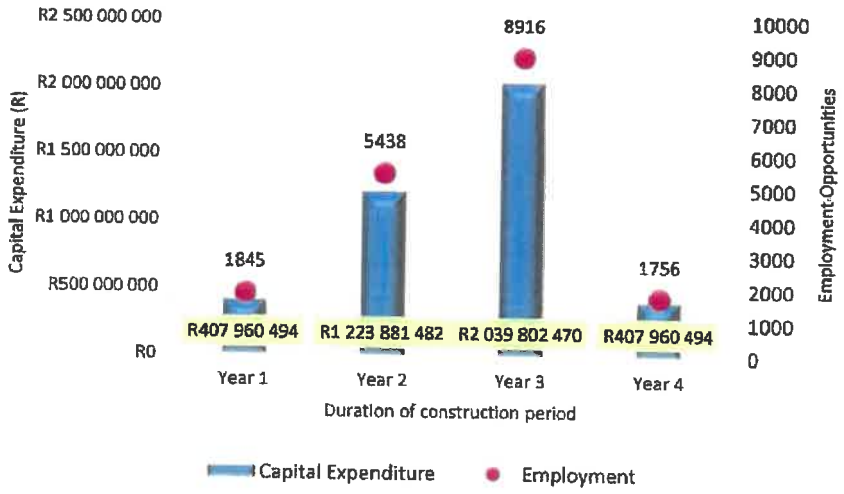


Figure 19: Nett job opportunities aligned with capital expenditure for the Stellenbosch Municipal Area for Scenario 1: Constant Productivity for Application 3

Source: Derived from Quantec data (2019), own calculations

Employment opportunities for the Stellenbosch Municipal Area

Table 15 indicates that Application 3 could sustain on average 4 489 jobs per annum in the Stellenbosch Municipal Area if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 4 938 jobs could be sustained per annum over 4 years.

Table 15: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices for the Stellenbosch Municipal Area for Application 3

	Scenario 1:	Scenario 2:	Scenario 3:	Scenario 1:	Scenario 2:	Scenario 3:
	Productivity constant	Productivity increases	External influences on demand	Productivity constant	Productivity increases	External influences on demand
CAPEX Year 1	**407.96**	**407.96**	**407.96**			
Employment in 2018	4036	4036	4036	**Employment contribution per year**		
Trend value Stellenbosch: Construction						
0.22116	5881	5696	6065	1845	1660	2029
CAPEX Year 2	**1223.88**	**1223.88**	**1223.88**			
0.22508	11318	10590	12046	5438	4894	5981
CAPEX Year 3	**2039.80**	**2039.80**	**2039.80**			
0.22877	20235	18615	21855	8916	8025	9808
CAPEX Year 4	**407.96**	**407.96**	**407.96**			
0.23226	21991	20196	23787	1756	1581	1932
Total				17955	16160	19751

Source: Quantec data (2019), own calculations

Employment opportunities for the Western Cape Province

The results summarised in **Table 16** indicate total employment for the Western Cape Province given the assumptions listed above. The realistic outcome is probably the first scenario given the assumptions applied in the analysis. Based on sound business practices, the second scenario with increased productivity and thus lower labour demand, is preferable. The findings of the employment analysis are considered in the context of the entire development with capital expenditure phased in over 4 years. For Application 3 of the Stellenbosch Bridge development, an average of 4 782 jobs opportunities per annum could arise if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 5 260 jobs could be sustained per annum over 4 years of the construction period.

Table 16: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices: Western Cape Province for Application 3

		Scenario 1:	Scenario 2:	Scenario 3:	Scenario 1:	Scenario 2:	Scenario 3:
		Productivity constant	Productivity increases	External influences on demand	Productivity constant	Productivity increases	External influences on demand
	CAPEX Year 1	**407.96**	**407.96**	**407.96**			
	Employment in 2018	159715	159715	159715	**Employment contribution per year**		
Year	**Trend value Western Cape: Construction**						
1	0.20702	161686	161489	161883	1971	1774	2168
	CAPEX Year 2	**1223.88**	**1223.88**	**1223.88**			
2	0.21108	167484	166707	168261	5798	5218	6378
	CAPEX Year 3	**2039.80**	**2039.80**	**2039.80**			
3	0.21492	176975	175249	178701	9491	8542	10440
	CAPEX Year 4	**407.96**	**407.96**	**407.96**			
4	0.21855	178841	176929	180754	1867	1680	2053
	Total				19126	17214	21039

Source: Quantec data (2019), own calculations

APPLICATION 4

Figure 20 indicates the total number of jobs that could be sustained per annum by the development and aligned with the estimated capital expenditure within the Stellenbosch Municipal economy for Scenario 1: Constant Productivity for Application 4.

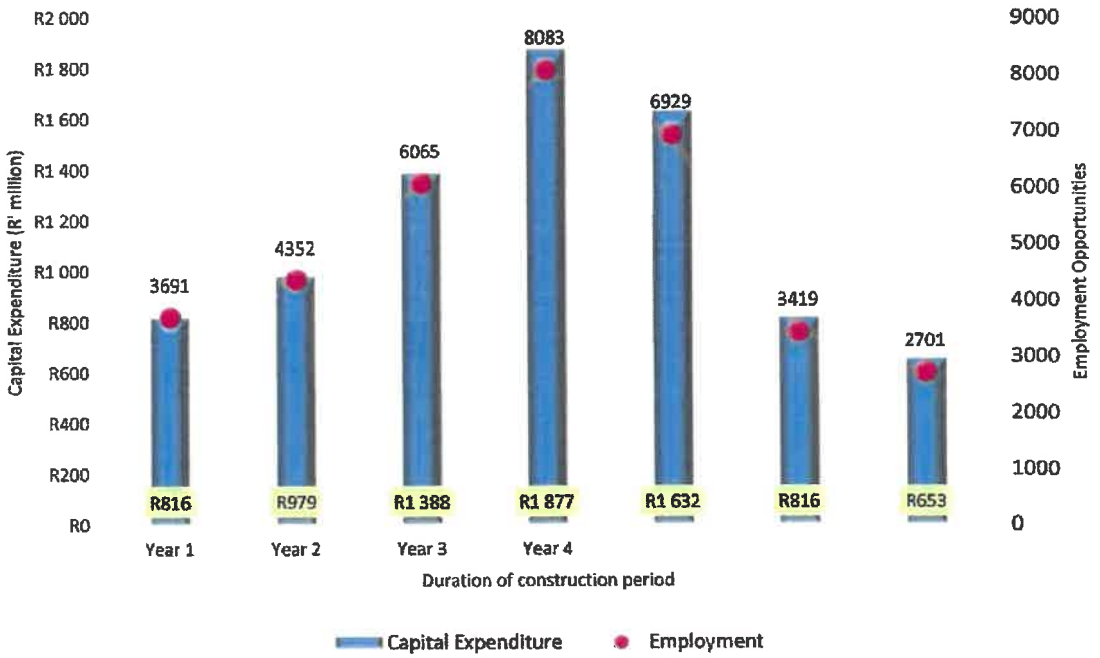


Figure 20: Nett job opportunities aligned to capital expenditure for the Stellenbosch Municipal Area for Scenario 1: Constant Productivity for Application 4

Source: Derived from Quantec data (2019), own calculations

Employment opportunities for the Stellenbosch Municipal Area

If employment is considered at the Stellenbosch Municipal Area, the situation changes (**Table 17**). Application 4 of Stellenbosch Bridge project could sustain on average 5 034 jobs per annum in the Stellenbosch Municipal Area if constant productivity is assumed. Should external influences drive demand higher, it is estimated that 5 538 jobs could be sustained per annum over 7 years.

Table 17: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices for the Stellenbosch Municipal Area for Application 4

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	**816.23**	**816.23**	**816.23**			
	Employment in 2018	4036	4036	4036	**Employment contribution per year**		
Year	**Trend value Stellenbosch: Construction**						
1	0.22116	7727	7358	8096	3691	3322	4060
	CAPEX Year 2	**979.48**	**979.48**	**979.48**			
2	0.22508	12078	11274	12883	4352	3917	4787
	CAPEX Year 3	**1387.59**	**1387.59**	**1387.59**			
3	0.22877	18144	16733	19555	6065	5459	6672
	CAPEX Year 4	**1877.33**	**1877.33**	**1877.33**			
4	0.23226	26227	24008	28446	8083	7274	8891
	CAPEX Year 5	**1632.46**	**1632.46**	**1632.46**			
5	0.23559	33156	30244	36068	6929	6236	7622
	CAPEX Year 6	**816.23**	**816.23**	**816.23**			
6	0.23875	36575	33321	39829	3419	3077	3761
	CAPEX Year 7	**652.99**	**652.99**	**652.99**			
7	0.24178	39276	35752	42800	2701	2431	2971
	Total				35240	31716	38764

Source: Quantec data (2019), own calculations

Employment opportunities for the Western Cape Province

The results summarised in **Table 18** indicate total employment for the Western Cape Province given the assumptions listed above. The realistic outcome is probably the first scenario given the assumptions applied in the analysis. Based on sound business practices, the second scenario with increased productivity and thus lower labour demand is preferable. The findings of the employment analysis are considered in the context of the entire development with capital expenditure phased in over 7 years. For Application 4 of the Stellenbosch Bridge development, an average of 5 352 jobs opportunities per annum could arise if constant productivity is assumed. Should external influences be assumed that drives demand higher, it is estimated that 5 887 jobs could be sustained per annum over 7 years of the construction period.

Table 18: Employment outcomes for different scenarios based on estimates of capital (construction) expenditure per year at current prices: Western Cape Province for Application 4

		Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand	Scenario 1: Productivity constant	Scenario 2: Productivity increases	Scenario 3: External influences on demand
	CAPEX Year 1	**816.23**	**816.23**	**816.23**			
	Employment in 2018	159715	159715	159715	**Employment contribution per year**		
Year	**Trend value Western Cape: Construction**						
1	0.20702	163658	163264	164052	3943	3549	4337
	CAPEX Year 2	**979.48**	**979.48**	**979.48**			
2	0.21108	168298	167440	169156	4640	4176	5104
	CAPEX Year 3	**1387.59**	**1387.59**	**1387.59**			
3	0.21492	174754	173250	176258	6456	5811	7102
	CAPEX Year 4	**1877.33**	**1877.33**	**1877.33**			
4	0.21855	183344	180981	185707	8590	7731	9449
	CAPEX Year 5	**1632.46**	**1632.46**	**1632.46**			
5	0.22201	190698	187599	193796	7353	6618	8089
	CAPEX Year 6	**816.23**	**816.23**	**816.23**			
6	0.22530	194320	190860	197781	3623	3261	3985
	CAPEX Year 7	**652.99**	**652.99**	**652.99**			
7	0.22845	197179	193432	200925	2858	2572	3144
	Total				37464	33717	41210

Source: Quantec data (2019), own calculations

No-Go Alternative

Applications 1, 2, 3 & 4

Without the proposed Stellenbosch Bridge development, the potential contribution to temporary employment opportunities will remain unrealised.

Cumulative Impact

The construction phases for each of Applications 1, 2 and 3 are anticipated to be completed over 4 years, whilst Application 4 should be completed within 7 years. However, these phases will overlap and the total development is envisaged to take 16 years to complete, after which artisans and labourers could find themselves without work. More construction work in the local area could provide a more sustainable work environment where construction workers could 'move on' to another project. Several projects in the area could also generate critical mass or economies of scale for new goods and services companies that could also provide a wider range of employment opportunities for local residents.

Mitigation measures

No mitigation applies as it represents a positive impact. However, the Developer should insist that the contractors demonstrate the use of local labour as far as possible.

Impact Rating

Our assessment suggests that the impact will be .....

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.

Application 1																		
Application 2																		
Application 3																		
Application 3																		
No-Go	-	-	-	-	-	-	-	-	-									

7.2.6 Contribution towards local economic income

Nature of impact

The Stellenbosch Municipal and Western Cape province economies will benefit from the project due to the procurement of goods and services and the spending on wages and salaries.

Scope and consequence of impact

The construction costs for the proposed Stellenbosch Bridge project are based on quantity surveyor (QS) estimates provided in the Rode Report (2019: 4). Bulk services infrastructure for the assessment equates to the development contributions that would under normal circumstances be payable to the Stellenbosch Municipality. Estimates of Development Charges for Applications 1 and 2 are used to estimate the Development Charges for Applications 3 and 4. A proportional allocation for internal service costs is used to estimate the costs for Applications 3 and 4. Estimates of capital costs in current terms also include an estimate of preliminaries and general and professional fees, but excludes VAT, contingencies and escalations. It is assumed that construction would commence once all environmental and planning processes have been completed and an Environmental Authorisation is issued by the relevant authorities and planning Applications 1 through 4 are approved.

As far as the construction phase is concerned, we have assumed that part of the initial investment is partly sub-contracted to construction enterprises operating within the Stellenbosch and Drakenstein municipal areas. These industries spend part of the initial investment on imported materials and the rest on paying wages and salaries to workers and owners in the local construction sector (and related industries). The initial increase in income that sets in motion a multiplier process also accounts for forward and backward linkages between sectors operating in the Provincial and local economies, with specific reference to the Construction Sector.

Theoretically, two approaches can be used:
The first, and most simplified, is to analyse the percentage contribution of each subsector of the regional economy to Regional Gross Value Added (RGVA) as well as the annual growth rates. The simplest manner of forecasting will then be to extrapolate the growth trend by fitting a mathematical function to the historical data. In the same manner, employment and other economic variables can be considered. The most important limitation of this method is that the relevant data is only available in an annual format and is preliminary for the latest three years – similar to other national economic data. The reason for this is nestled in the manner that the statistics are generated (i.e. derived from national statistics).

A second way of analysing the performance, is to depict the economy in the circular flow diagram shown in **Figure 21**, which captures all transfers and real transactions between sectors and institutions. Productive activities purchase land, labour and capital inputs from the factor markets, and intermediate inputs from commodity markets, and use these to produce goods and services. These are supplemented by imports (M) and then sold through commodity markets to households (C), the government (G), investors (I), and foreigners (exports - E). In the flow diagram, each institution's expenditure becomes another institution's income. For example, purchases of commodities by households and governments provide the incomes that producers need to continue the production process. Additional inter-institutional transfers, such as taxes and savings, ensure that the circular flow of incomes is closed. In other words, all income and expenditure flows are accounted for, and there are no leakages from the system.

These indicators are based on GDP at factor cost, the fiscal balance, the current account balance, the level of private savings, and total imports and exports. GDP at factor cost is total capital and labour value-added. GDP at market prices is the sum of all final demands: GDP = C + I + G + E – M. In summary, this information reveals a great deal about a country's economic structure.

When we talk of "exogenous demand-side shocks" to an economy, we are referring to changes in export demand, government spending or investment demand. The impacts of these shocks have both direct and indirect effects. Direct effects are those related to the sector that is directly affected by the shock. For example, an exogenous increase in demand for Western Cape agricultural exports has a direct impact on the agricultural sector. However, it may also have indirect effects stemming from agriculture's linkages to other sectors and parts of the economy. These indirect linkages can, in turn, be separated into production and consumption linkages. When we add all direct and indirect linkages, we arrive at a measure of the shock's multiplier effect, or how much a direct effect is amplified or multiplied by indirect linkage effects.

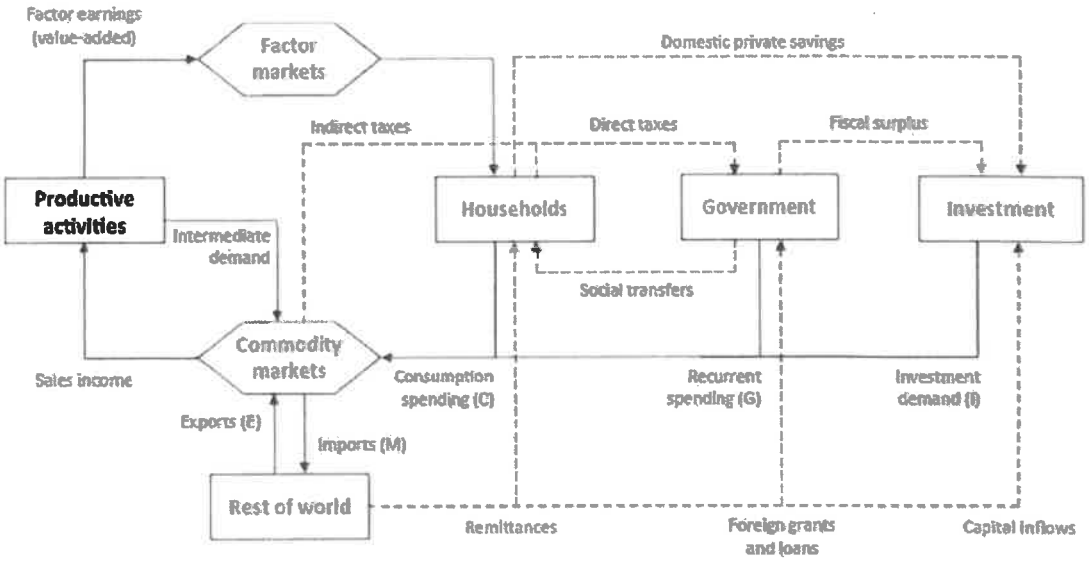


Figure 21: Circular flow of the economy
Source: Breisinger et al., 2009

Production linkages are determined by the sectors' production technologies and they are differentiated into backward and forward linkages (**Figure 22**). Backward production linkages are the demand for additional inputs used by producers to supply additional goods or services. For example, when agricultural production expands, it demands intermediate goods like fertilisers, machinery and transport services. This demand then stimulates production in other sectors to supply these intermediate goods. The more input-intensive a sector's production technology is, the stronger its backward linkages are. Forward production linkages account for the increased supply of inputs to upstream industries. For example, when agricultural production expands, it can supply more goods to the food-processing sector, which stimulates manufacturing production. So the more important a sector is for upstream industries, the stronger its forward linkages will be.

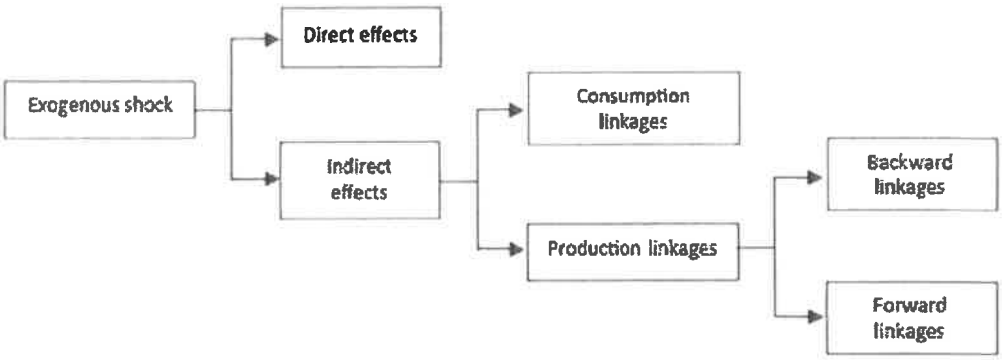


Figure 22: Direct and indirect linkages
Source: Breisinger et al., 2009

Stronger forward and backward production linkages lead to larger multipliers. Traditional input-output multipliers measure only the effects of production linkages. They do not consider consumption linkages, which arise when an expansion of production generates additional incomes for factors and households, which are then used to purchase goods and services. For example, when agricultural production expands, it raises farmers' incomes, which are used to buy consumer goods. Depending on the share of tradable and non-tradable goods in households' consumption baskets, domestic producers benefit from a greater demand for their products. The size of consumption linkages depends on various factors, including the share of factor income distributed to households, the composition of the consumption basket and the share of domestically supplied goods in consumer demand. Evidence from developing countries suggests that consumption linkage effects are much larger than production linkage effects. Social Accounting Matrix (SAM) multipliers tend to be larger than input-output multipliers because they capture both production and consumption/income linkages.

Economic linkages are fairly static and are determined by the structural characteristics of an economy (that is, sectors' production technologies and the composition of households' consumption baskets). Multiplier effects, on the other hand, capture the combined effects of economic linkages over time. For example, forward production linkages tell us that increasing fishing production will stimulate the production of processed foods by increasing the supply of inputs to this sector. This is the first-round linkage effect between the fishing industry and food processing. However, in the second round, the increase in processed food production will have additional forward production linkage effects to other sectors, such as to the restaurant sector, which uses processed foods as an intermediate input. Similarly, in the third round, the expansion of the restaurant sector will generate even more demand for other sectors. This process continues over many rounds as the effects of increasing fishing production ripple throughout the economy, eventually becoming small enough that they effectively cease.

SAM multipliers measure the value of all production and consumption linkage effects. They capture direct and indirect effects in the first and all subsequent rounds of the circular income flow. More specifically, multipliers translate initial changes in exogenous demand (for example, increased agricultural export demand) into total production and income changes of endogenous accounts. **Figure 23** illustrates this process.

Three types of multipliers can be distinguished from the figure. First, an output multiplier combines all direct and indirect (consumption and production) effects across multiple rounds and reports the final increase in gross output of all production activities. In **Figure 23**, this is the combined increase in agricultural and non-agricultural production (the two boxes marked "A"). Second, a Gross Domestic Product (GDP) multiplier measures the total change value-added or factor incomes caused by direct and indirect effects (the box marked "B"). Finally, the income multiplier measures the total change in household incomes (the box marked "C").

The size of a multiplier depends on the structural characteristics of an economy. For example, a key determinant is the share of imported goods and services in households' consumption demand. If households consume domestically produced goods, then increasing household incomes will benefit domestic producers and the circular flow of income

will lead to further rounds of indirect linkage effects. However, if households demand imported goods, foreign producers will benefit and the indirect linkage effects will be smaller. Import demand is thus a leakage from the circular flow of income. Similarly, when government taxes factor incomes, it limits how much of the returns to production are earned to households, and so reduces consumption linkages. Ultimately, these kinds of leakages cause the round-by-round effects to slow down more quickly and reduce the total multiplier effect.

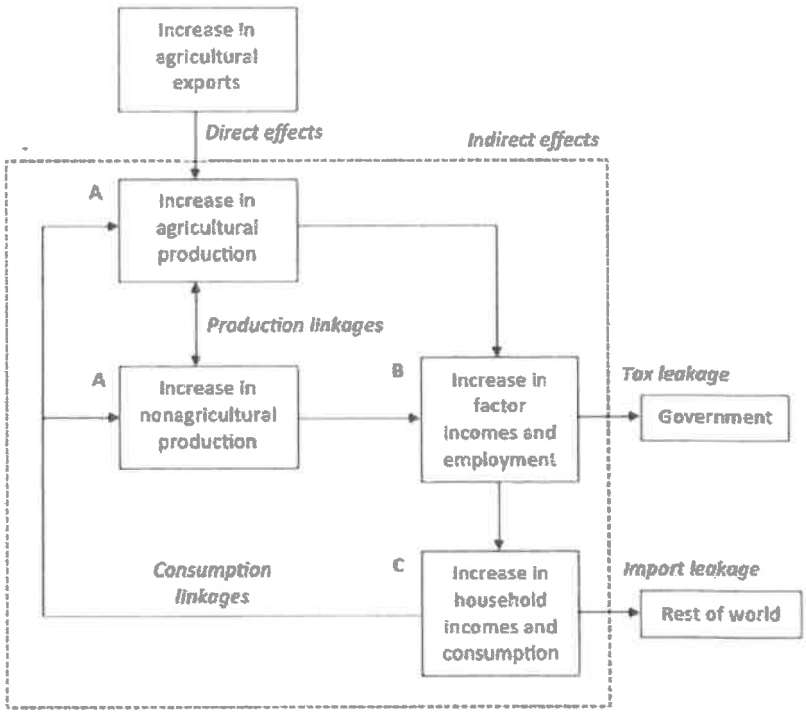


Figure 23: Circular flow of income in the multiplier process
Source: Breisinger et al., 2009

Social Accounting Matrix (SAM) multipliers are an extension of the classic Leontief input-output model. While the Leontief model concentrates on inter-industry production linkages, SAM-based models also include consumption linkages by making institutions like households and the government "endogenous". The SAM multiplier approach thus makes use of information on household factor endowments and income distribution.

Unconstrained multiplier models are the simplest kinds of multiplier models, because they make some limiting assumptions. They assume that prices are fixed and that any changes in demand will lead to changes in physical output rather than prices. This, in turn, requires an additional assumption that the economy's factor resources are unlimited or unconstrained, so that any increase in demand can be matched by an increase in supply. Finally, the multiplier model assumes that all structural relationships between sectors and households in the economy are unaffected by exogenous changes in demand. In other words, the input coefficients of producers and the consumption patterns of households remain unchanged (that is, linkage effects are linear and there is no behavioural change).

Even dropping the assumption that supply in all sectors is unconstrained, the above assumptions remain serious limitations for SAM multiplier analysis. In some cases, these limitations provide sufficient justification to use more complex SAM-based methods, such as Computable General Equilibrium (CGE) models that drop the assumption of fixed prices and unconstrained factor resources. However, SAM multipliers are an important step toward understanding these more complicated methods.

In the unconstrained multiplier model, we made some assumptions. One limitation was the assumption that supply can respond to changes in demand or that supply capacity is infinite given existing resources. In reality, this is rarely the case, especially because some sectors use specialised resources. For example, increasing demand for gold exports from South Africa may not lead to increased mining production if additional gold deposits do not exist or if the necessary investments in mining equipment have not been made. Moreover, increasing production in some sectors may lead to falling production in others if some resources are scarce. For example, increasing production of export crops, such as sugarcane, may require a reallocation of land away from other food production, which may not be possible. In these cases, the supply response may not be unconstrained, and the suitability of the simple multiplier model becomes questionable. By ignoring supply constraints, unconstrained SAM-multiplier models typically overstate the impacts of linkage effects.

If we drop the assumption that sectors' supply responses are unconstrained by fixing the level of output in certain sectors, some adjustments to the multiplier formula is required to derive a constrained multiplier model. Although this class of model is often referred to as a "semi-input-output model", we still derive a SAM-based multiplier formula.

Estimated values for the initial capital investments include material costs, contractors' fees, wages and salaries, allowance for an escalation factor and contingencies. Initial import leakages are assumed to equal 20% of total construction expenditure (including wages and salaries). In this manner, we can capture the inter-regional effects caused by the extended outreach for goods and services from other provinces in South Africa and the rest of the World. The income multiplier is based partly on estimated consumption and import propensities and direct and indirect tax propensities for the region. Our assessment for the construction phase is based on the Western Cape economy and an attributable portion of the GVA is allocated to the Klapmuts area based on the contribution of Stellenbosch to the Western Cape economy.

APPLICATION 1

Table 194 provides an estimate of the economic impact based on the methodological principles discussed as part of the approach used for determining the impact of the Stellenbosch Bridge project. An assessment of the construction cost estimates for **Application 1** suggests that an initial estimated amount of R 1 503 million would be introduced with varying expenditure over the period envisaged for the construction period of 4 years. The total capital expenditure includes an estimate of external bulk services and internal services together with a Preliminaries and General (P&Gs) of 13% and professional fees of 11% applicable to the construction and infrastructure capital expenditure. No contingency, escalations and VAT have been applied and no other fees are considered. The figures are stated in current terms (i.e. without escalation).

Table 19: An indication of the assumptions and preliminary impact of initial construction costs on the Western Cape and Stellenbosch Municipal economy due to the proposed Stellenbosch Bridge Application 1

Construction costs	
Construction cost (excl. infrastructure & Fees) (R' million)	R1 257
Infrastructure (internal and external)	R246
Total construction cost (excluding VAT) (R 'million)	R 1 503
Initial import leakage (Western Cape)	20%
Net total capital expenditure (R' million)	R 1006
Western Cape Province	
Multiplied increase in net capital expenditure (R' million) which assumes an open economy with no significant constraints	R 4 208
Stellenbosch Municipal contribution to Western Cape GVA	14,98%
Attributable GVA increase for Stellenbosch due to the initial capital expenditure stated above (R' million)	R 630

Note: The multiplier adopted for the assessment is an income multiplier
Source: Multi-Purpose Business Solutions

A combined initial investment of R1 503 million (R1 006 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R4 208 million in the Western Cape Province over the four-year construction period. Approximately R630 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. Note the latter figure represents a snapshot of a completed development, but does not consider the commencement date for the project.

APPLICATION 2

For Application 2 (Table 20), an initial amount of R1 288 million will be introduced with varying expenditure over the 4 years envisaged for the construction (the same assumptions apply as for Application 1; no contingency and no escalations have been applied). A combined initial investment of R1 288 million (R862 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R3 605 million in the Western Cape Province over the construction period. In addition, approximately R 540 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. Note the latter figure represents a snapshot of a completed development but does not consider the commencement date for the project.

Table 20: An indication of the assumptions and preliminary impact of initial construction costs on the Western Cape Province and the Stellenbosch Municipal economy due to the proposed Stellenbosch Bridge Application 2

Construction costs	
Construction cost (excl. Infrastructure & Fees) (R' million)	R 1 077
Infrastructure (internal and external)	R211
Total construction cost (excluding VAT) (R 'million)	R 1 288
Initial import leakage (Western Cape)	20%
Net total capital expenditure (R' million)	R 862
Western Cape Province	
Multiplied increase in net capital expenditure (R' million) which assumes an open economy with no significant constraints	R 3 605
Stellenbosch Municipal contribution to Western Cape Province GVA	14,98%
Attributable GVA increase for Stellenbosch due to the initial capital expenditure stated above (R' million)	R 540

Note: The multiplier adopted for the assessment is an income multiplier
Source: Multi-Purpose Business Solutions

APPLICATION 3

For Application 3 (Table 21), an initial amount of R3 250 million will be introduced with varying expenditure over the 4 years envisaged for the construction (the same assumptions apply as for Application 1 and 2; no contingency and no escalations have been applied). A combined initial investment of R3 250 million (R2 847 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R11 907 million in the Western Cape Province over the construction period. In addition, approximately R1 784 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. Note the latter figure represents a snapshot of a completed development but does not consider the commencement date for the project.

Table 21: An indication of the assumptions and preliminary impact of initial construction costs on the Western Cape Province and the Stellenbosch Municipal economy due to the proposed Stellenbosch Bridge Application 3

Construction costs	
Construction cost (excl. infrastructure & Fees) (R' million)	R2 870
Infrastructure (internal and external)	R380
Total construction cost (excluding VAT) (R 'million)	R3 250
Initial import leakage (Western Cape)	20%
Net total capital expenditure (R' million)	R2 847
Western Cape Province	
Multiplied increase in net capital expenditure (R' million) which assumes an open economy with no significant constraints	R11 907
Stellenbosch Municipal contribution to Western Cape Province GVA	14,98%
Attributable GVA increase for Stellenbosch due to the initial capital expenditure stated above (R' million)	R 1 784

Note: The multiplier adopted for the assessment is an income multiplier
Source: Multi-Purpose Business Solutions

APPLICATION 4

For Application 4 (Table 22), an initial amount of R5 572 million will be introduced with varying expenditure over the 7 years envisaged for the construction (the same assumptions apply as for previous applications; no contingency and no escalations have been applied). A combined initial investment of R5 572 million (R4 457 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R39 213 million in the Western Cape Province over the construction period. In addition, approximately R5 874 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. This represents an annual contribution to economic income of R839 million over 7 years. Note the latter figure represents a snapshot of a completed development, but does not consider the commencement date for the project.

Table 22: An indication of the assumptions and preliminary impact of initial construction costs on the Western Cape Province and the Stellenbosch Municipal economy due to the proposed Stellenbosch Bridge Application 4

Construction costs	
Construction cost (excl. infrastructure & Fees) (R' million)	R4 983
Infrastructure (internal and external)	R589
Total construction cost (excluding VAT) (R 'million)	R 5 572
Initial import leakage (Western Cape)	20%
Net total capital expenditure (R' million)	R 4 457
Western Cape Province	
Multiplied increase in net capital expenditure (R' million) which assumes an open economy with no significant constraints	R 39 213
Stellenbosch Municipal contribution to Western Cape Province GVA	14,98%
Attributable GVA increase for Stellenbosch due to the initial capital expenditure stated above (R' million)	R5 874

Note: The multiplier adopted for the assessment is an income multiplier
Source: Multi-Purpose Business Solutions

No-Go Alternative

Applications 1, 2, 3 & 4

Without the proposed Stellenbosch Bridge development, the potential contribution to local economic income will not be realised.

Cumulative Impact

Other development projects in the Klapmuts area could act synergistically to create more demand for supplies and services and thus act as a catalyst for creating further economic growth in the area due to the multiplier effect.

Mitigation measures

No mitigation applies as it represents a positive impact.

Impact Rating

Our assessment suggests that the impact will be.....

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1																		
Application 2																		
No-Go	-	-	-	-	-	-	-	-	-									

7.3 Operational Phase

The most significant concerns for the operational phase relate to the sense of place, traffic, infrastructure capacity and surrounding land values. On the positive side, the proposed development will provide in a growing need for housing, create new business opportunities, sustain additional employment opportunities and contribute towards economic income.

7.3.1 Sense of place

Nature of impact

The proposed development will impact the sense of place for surrounding land users.

Scope and consequence of impact

A sense of place generally refers to the way people perceive places, whether they are streets, communities, cities or regions. This may influence their well-being, how they describe and interact with a place, what value they place on something, etc. A sustainable community resembles a living system in which human, natural and economic elements

are interdependent and draw strength from each other (Roseland, 1998). Community members generally recognise and support people's sense of well-being, which includes a sense of belonging, a sense of place, a sense of self-worth, a sense of safety and a sense of connection with nature.

Application 1

The proposed site is located to the west of the Klapmuts village, which consists primarily of low-income and state-assisted housing. The surrounding area is predominantly rural, with farms growing mainly grapes.

In the Visual Impact Assessment for the approved Klapmuts Hills residential development, Megan Anderson Landscape Architects (2008) concluded that the proposed development has the potential to have either a negative or a positive visual impact on the landscape and scenic resources of the area. The proposed Klapmuts Hills could provide scenic interest and enhance the development, even though open space is being lost to built space. However, the intent needs to be carried through to the design development stage, the implementation stage as well as the operation stage to ensure that this is realised. The Preferred Alternative 1, with mitigation measures, was the Preferred Alternative from a visual impact point of view as residential development in the south is restricted below the 200 m contour that is considered less intrusive into the rural area. Additional development is allowed in the North West, which is closer to major roads and railway lines and thus has a more man-made scenario than in the south.

A Heritage Impact Assessment conducted by Halkett and Finnegan (2008) for the Klapmuts Hills development concluded that no significant archaeological material was observed and no physical heritage resources of value were identified within the proposed development site. The preferred development proposal for Klapmuts Hills included 1 577 residential units, some of which were 3 and 4 storey walk-ups (maximum height of 15 m). While it may be felt that the overall density, scale and height of development are at odds with the prevailing character of the area, predictions for future local growth must be taken into consideration. The proposed development falls within the urban edge and it is envisioned that Klapmuts will eventually become a town of approximately 25,000 inhabitants. This future town will include schools and clinics, commercial and industrial sectors that will inevitably have a significant impact on the rural character of the village.

The Heritage Impact Assessment (2008) also mentioned that the majority of the site is of a low lying nature and not visible from the surrounding areas. As one moves up the hill, the site becomes more visible, specifically from the existing Klapmuts Village and the R44. However, existing tree lines along the N1 largely screen views of the proposed development. The high-lying areas of the proposed development could thus be considered to have a limited potential visual impact and have required mitigating measures in the design.

Application 2

Megan Anderson Landscape Architects (2020) concluded that the proposed Urban Planning, Architectural and Landscape Architectural principles, guidelines, controls and concepts for the light industrial development generally comply with the municipalities 'Visual, Scenic Resource and Sense of Place' requirements.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, there will be no change in the sense of place linked to the site. However, the site is currently vacant and invaded with alien vegetation and there is a risk that the informal settlement may start spreading eastwards onto the site if it is not developed.

Cumulative Impact

Given the approved and proposed development in the larger Klapmuts area, the sense of place of the area will continue to change to a more urban character.

Mitigation measures

Application 1

Megan Anderson Landscape Architects (2008) indicated that any negative visual impact related to the Klapmuts Hills residential development should be mitigated by following architectural, lighting and landscaping guidelines and controls. An updated Visual Impact Assessment has not been submitted for Stellenbosch Bridge.

The Heritage Impact Assessment (2008) indicated that the design of the Klapmuts Hills development sought to maintain key view lines and visual links from Klapmuts village by associating green spaces as well as tree lines with the key views of the site from Klapmuts. The maximum height of the development is the 200 m contour where the crest of the hill is approximately 250 m above mean sea level. The high-lying development areas are of a lower density, allowing for greater landscaping density and height, acting as screening and therefore softening the visual effect of the proposed development. There are also some key visual breaks in the development, allowing for substantial landscape elements to break the extent of the development seen from any perspective.

Application 2

Mitigation measures proposed by Megan Anderson Landscape Architects (2020) include the following:

- Enforcing the proposed Architectural and Landscape Architectural Principles, Codes, Guidelines and Concepts provided by OL Architects and Square One Landscape Architects;
- Comprehensive planning regarding lighting to minimise light pollution on the cultural and rural landscape;
- Construction mitigation measures to be included in the EMP; and
- Production of an Operational Management Plan to guide and control the Stellenbosch Bridge Light Industrial Development including buildings, infrastructure and landscaping in the future.

Impact Rating

Megan Anderson Landscape Architects (2008) indicated that if the recommendations and mitigation measures are enforced, the proposed development will have a moderate visual impact and, in time, with the maturing of trees that should be planted, the development will not detract negatively from the highly-rated Cape Winelands scene.

Given the nature and scope of the proposed development, the impact **is unavoidable**, but **can be partially managed**; i.e. the impact **can be partly mitigated**. The residual impact for both Applications 1 and 2 will be **medium negative for surrounding land users**, especially for residents living on the eastern side of Klapmuts.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	6	5	2	1	5	4	76	**M-H (-)**	**M-H (-)**	4	5	2	1	5	3	51	**M (-)**	**M (-)**
Application 2	6	5	2	1	5	4	76	**M-H (-)**	**M-H (-)**	4	5	2	1	5	3	51	**M (-)**	**M (-)**
No-Go	-	-	-	-	-		-	-	-									

7.3.2 Provision of housing

Nature of impact

The residential component will address a growing demand for housing in the Stellenbosch Municipal area.

Scope and consequence of impact

According to the Stellenbosch SDF (2019), there will be an estimated unfulfilled need of 17 847 indigent houses by 2036, assuming that no houses for the indigent will be built between 2016 and 2036. If the current rate of delivery persists, only 7 805 units would have been added by 2036, thus resulting in a significant backlog. In terms of housing for the non-indigent (<80 m²), the estimated municipality-wide need was 15 042 in 2016 (includes a variety of unit types aimed at various markets, such as GAP housing, flats and townhouses and stand-alone units). If no supply is added, the need will be 23 106 by 2036. According to BEAL Africa (2017), there was a waiting list for 2 457 housing units in Klapmuts in 2016, represented by 2 351 BNG and 106 GAP housing units. There were 2 381 existing residential units in 2017, with the Growth Model forecasting a total of 8 407 residential units by 2027, i.e. a need for 6 026 new units was forecasted. The Stellenbosch IDP indicates that there were 505 service sites and 183 housing units under construction in 2018/2019 as part of the Phase 1 upgrading of Mandela City in Klapmuts.

Application 1

A total of 1 577 residential units are proposed for Phase 1 of the Stellenbosch Bridge development, which include 200 2-storey townhouses (3-bedrooms) and 1 377 4-storey walk-ups (1, 2 & 3-bedrooms).

Application 2

No residential units are proposed for Phase 2 as it only entails light industrial land-use.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, there will be no new housing provision linked to the site. However, there will be increased pressure to develop the land for residential purposes since it is included in the Klapmuts Urban Edge, with a high risk of encroaching from the adjacent informal settlement.

Cumulative impact

A total of 1 577 residential units are included in the current Application 1, with another 2 500 apartment units foreseen in Phase 3 of the Stellenbosch Bridge Development Plan. Given an estimated 2 381 residential units in 2017, the Stellenbosch Bridge development will add about 68% of the shortfall of the demand foreseen for the Klapmuts area by 2027.

Mitigation measures

No mitigation applies as it represents a positive impact.

Impact rating

Our assessment suggests that the residual impact for both Applications 1 and 2 will be **medium-high positive.**

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	10	5	2	0	0	5	85	**M-H (-)**	**H (+)**									
Application 2	10	5	2	0	0	5	85	**M-H (-)**	**H (+)**									
No-Go	-	-	-	-	-	-	-	-	-									

7.3.3 Impact on surrounding property values

Nature of impact

A new development may affect the current and future perceived value of other properties in the Klapmuts area.

Scope and consequence of impact

The value of property is driven by various factors, among others supply and demand, interest rates, the contraction or expansion of the local economy, population growth rates and changes in disposable income to debt ratios. In addition, relative property values are based on the abundance of sites that are either valued or avoided by the market. As these underlying characteristics and resulting relative advantages change, so do the relative prices as these advantages are capitalised into land values. The future value of land in the area is also dependant on spatial planning policies and the bulk supply of land within the area permitted for various uses.

Projects such as Stellenbosch Bridge are long-term projects that could take more than 10 years or longer to complete. From a demand and supply perspective, the perceived supply in the market may not have a significant impact on property prices in the near term. However, as a new equilibrium point is achieved through the adjustment of supply and demand, the market value of surrounding land could start increasing in a few years depending on market forces expressed in terms of balancing supply and demand. Demand forces will impact property prices of unimproved land pockets included in the urban edge as supply becomes more constrained and pressure for future development increases.

Application 1

.Any perceived shortage of land for housing in Klapmuts will increase prices in the short-term until new supply will either ensure price stabilisation or a reduction in prices especially if properties are listed for sale. A large residential component is envisaged for Application 1 and these units will be either sold or rented out, which will ensure that properties in the Klapmuts area remain at more affordable price points. Large tracks of land on the periphery within the urban edge are unlikely to increase in value in the medium term as the shortage of residential accommodation is addressed in Application 1. Over time, the scarcity of land will increase and drive property prices higher for those land portions within the urban edge.

Application 2

The factors listed for Application 1 also apply to Application 2. The light industrial precinct proposed in Application 2 is located on a strip of land adjacent to a lower-income residential area (Bennetsville), with the informal settlement on its south-eastern border. Once completed, the industrial development on this piece of land will create a buffer zone that could curtail further spreading of the informal settlement – and thus reduce potential impacts for neighbouring landowners.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed Stellenbosch Bridge development, the site could deteriorate due to the overgrowth of invasive species and/or encroachment of the property by informal settlers. The value of undeveloped land within the urban edge will be strongly influenced by demand, which may be temporarily addressed by other residential developments in the area. However, continuous population growth will add to the demand for housing in the Stellenbosch Municipality and there will be future pressure for development of the site. The site related to Application 2 is particularly sensitive to encroachment from the adjacent informal settlement, which could negatively impact the property prices of adjacent land parcels.

Cumulative Impact

A number of additional residential and/or industrial development in the immediate area (e.g. Groenfontein and Distell) could compound any negative impacts on surrounding land users (e.g. sense of place and traffic flows). It is unclear at this stage to what extent this may impact property values in the area. Growth of development in the area may have a positive impact and cause prices to move higher, however, this is a long-term impact and will be driven by the dynamism that exists between demand and supply.

Mitigation measures

Implementation of the recommendations made by the various specialists to mitigate potential negative impacts (such as visual, traffic and nuisance factors) will be essential to minimise negative impacts for surrounding landowners.

Impact Rating

Given the nature and scope of the proposed development, the impact **is unavoidable**, but can **be partially managed**; i.e. the impact can be **partly mitigated**. The residual impact for both Applications 1 and 2 following the implementation of mitigation measures is anticipated to be **low negative for owners of nearby residential erven** and **low positive for owners of unimproved land.**

PROJECT DESCRIPTION		ENVIRONMENTAL SIGNIFICANCE																	
		BEFORE MITIGATION									AFTER MITIGATION								
		M	D	E	I	R	P	TOTAL (SP)	S	CUMUL	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL
Residential erven	Application 1	6	5	2	1	3	3	51	M (-)	M (-)	2	5	2	1	3	3	39	L (-)	M (-)
	Application 2	6	5	2	1	3	3	51	M (-)	M (-)	2	5	2	1	3	3	39	L (-)	M (-)
	No-Go	-	-	-	-	-	-	-	-	-									
Unimproved land	Application 1	4	5	3	1	5	2	36	L (+)	L (+)									
	Application 2	4	5	3	1	5	2	36	L (+)	L (+)									
	No-Go	-	-	-	-	-	-	-	-	-									

7.3.4 Increased vehicular traffic

Nature of impact

The large residential and industrial components will increase vehicular movement along the access routes.

Scope and consequence of impact

Application 1

A Traffic Impact Statement (TIS) prepared by iCE Group (2019a) noted that the conditions of approval of the 2011 land-use application for the Klapmuts Hills development included a number of external road upgrades for the different phases (iCE Group, 2011). Of these conditions, Phase A-3 (signalisation of R101/R44 intersection) and Phase D-6 (turning lanes at R44 / Elsenburg Road intersection) have since been implemented. Based on a trip generation calculation, it is expected that the road improvements as per the 2011 conditions of approval will remain applicable as the newly proposed development extent is less than previously approved. The conditions should, however, be realigned with the revised development roll-out.

The TIS concluded that the approved Klapmuts Hills development had the potential to generate 2 260 AM peak hour trips and 2 862 PM peak hour trips. In contrast, Phase 1 of the proposed Stellenbosch Bridge development has the potential to generate 2 214 AM peak hour trips and 1 794 PM peak hour trips, i.e. 46 AM peak hour trips fewer and 1 068 PM peak hour trips fewer than the previously expected peak hour traffic.

It is highly likely that many Stellenbosch Bridge residents will be dependent on public transport, which could also support improved public transport services to the area.

Application 2

The Traffic Impact Statement for Application 2 (iCE Group, 2019b) concluded that the proposed development has the potential to generate 461 peak hour trips (369 in, 92 out during the AM peak hour and *vice versa* during the PM peak hour). To accommodate the background traffic, the R44 should be dualled north of its intersection with the Klapmuts-Simondium Road intersection, and dedicated left-turn lanes are provided along the two R44-approaches to its

intersection with the Klapmuts-Simondium Road intersection. To accommodate the proposed development traffic, a dedicated left-turn lane should be provided along the Stellengate Boulevard approach to its intersection with the R44/Klapmuts-Simondium Road; a roundabout should be provided at the Groenfontein Road/Merchant Street intersection and a roundabout provided at the access road intersection to Merchant Street.

Applications 3 & 4

No Traffic Impact Assessment was done for Applications 3 and 4.

No-Go Alternative

Application 1 & 2

Without the proposed Stellenbosch Bridge development, there will be no additional traffic originating from the proposed development site. Nevertheless, there will be an increase in traffic along the access routes due to other developments in the Klapmuts area.

Cumulative Impact

Further development along the R44 and Old Paarl Road are already in progress and will generate additional traffic along these roads. Together with Stellenbosch Bridge, this could have a significant impact on existing and future road users. The intention is also to implement Application 1 and 2 in parallel, which will add a significant number of vehicles on the road at more or less the same time.

Mitigation measures

To accommodate the expected developments proposed for the region, a number of road network improvements are proposed in the Traffic Impact Statements.

Impact Rating

The 2011 TIA and 2019 TISs did not provide an impact rating for the scenarios before and after mitigation. However, based on our interpretation of these reports, the impact is **unavoidable**, but can be **partly managed**, i.e. the impact can be **partly mitigated** through the implementation of the proposed upgrades. Our assessment is that, following the implementation of the proposed upgrades, the residual impact will be **medium-high negative** and **medium negative** for Applications 1 and 2, respectively.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																
	BEFORE MITIGATION									AFTER MITIGATION							
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL
Application 1	10	5	3	0	1	5	95	**M-H (-)**	[illegible]	8	5	3	0	1	5	85	**M-H (-)**	[illegible]
Application 2	6	5	3	0	1	5	75	**M-H (-)**	**M-H (-)**	4	5	3	0	1	5	65	**M (-)**	**M-H (-)**
No-Go	-	-	-	-	-	-	-	-	-									

7.3.5 Increase in local crime

Nature of impact

Effective security at the proposed development is essential to safeguard against criminal elements.

Scope and consequence of impact

The establishment of new residential neighbourhoods, industrial and business activities will also attract criminal elements, which could originate from inside and/or outside of the Klapmuts area. As indicated earlier, the SAPS Crime Statistics (SAPS, 2019) indicate relatively high incidences of theft and robbery in the Klapmuts area, which can be further aggravated by high unemployment in the immediate area.

The Klapmuts Community Forum (refer to Section 6.3.2) indicated that trusted community members should be included in the security strategy as everyone in Klapmuts know each and a number of local residents have worked in this construction industry. Furthermore, the Klapmuts Community Forum advised that a solid security wall should be built where houses were located directly against the Stellenbosch Bridge boundary.

Application 1 & 2

The two respective applications entail significant residential and commercial activities that could attract criminals in search of easy targets. The proximity of the informal settlement could represent a particular concern, but there could also be an influx of criminals from outside the area. Given the large scope of the total development, it would be difficult to monitor the movement and activities of people entering the development.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, no criminal activities would be linked to the site.

Cumulative Impact

Given the high unemployment rate in the Klapmuts area, it is likely that any new residential, commercial and business activities will attract criminals in search of easy targets.

Mitigation measures

Local residents must be employed at the various businesses and industries offered by Stellenbosch Bridge to reduce the level of unemployment in the Klapmuts area. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols could also discourage criminals from the area.

Impact Rating

The impact can be **is unavoidable**, but can **be fully managed**; i.e. the impact can be **fully mitigated**. The residual impact for both Applications 1 and 2 will therefore be **low negative** following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE	
	BEFORE MITIGATION	AFTER MITIGATION

	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	6	5	2	1	1	4	60	**M (-)**	**M-H (-)**	2	5	2	1	1	3	33	**L (-)**	**M (-)**
Application 2	6	5	2	1	1	4	60	**M (-)**	**M-H (-)**	2	5	2	1	1	3	33	**L (-)**	**M (-)**
No-Go	-	-	-	-	-	-	-	-	-									

7.3.6 Bulk infrastructure capacity

Nature of impact

Infrastructure requirements relate to the provision of bulk infrastructure for sewerage, water and electrical supply, solid waste disposal and stormwater management.

Scope and consequence of impact

Application 1

A preliminary Civil Engineering Services Report prepared by WEC Consult (2019) concluded that - as the amended development plans retain the approved Basket of Rights - sufficient service capacity is available to accommodate the proposed development. The service infrastructure will be upgraded where required.

Water Supply: The site would require two new bulk connector/link pipelines to connect to the bulk reticulation network. The Municipality has allowed in their 2019/2020 budget to have these upgrades designed and constructed. It is expected that these bulk network upgrades will be completed before the completion of the construction stage of the proposed development.

Sewerage: Additional bulk connector/link pipelines are required to connect to the bulk reticulation network. No other upgrades to the bulk sewer distribution network is required to accommodate the proposed development. Sufficient sewer treatment capacity is available in the Klapmuts WWTW to accommodate the proposed development.

Stormwater: A detailed stormwater management plan will be compiled and submitted to the local authority, where more detailed information regarding the flood calculations and position and size of detention ponds will be provided. There will be no upgrades required for the downstream watercourses and piped stormwater systems. Stormwater detention ponds will be designed and constructed to ensure that the post-development stormwater runoff does not increase from the pre-development scenario. No provision needs to be made for any future connection. The design of bulk stormwater infrastructure will make allowance for all future phases of this development that fall within the same catchment area.

Electricity: Matters related to electrical requirements and/or capacity are in the process of being finalised.

Application 2

Sufficient service capacity is available to accommodate the proposed development, which in part is linked to the installation of bulk service infrastructure undertaken by the developer (Anton Lotz Town Planning & A Roux Town Planning, 2019b).

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed development, there will be no additional demand for infrastructure linked to the site.

Cumulative Impact

The bulk service requirements for the proposed development will add to the existing demand for resources and services in the area, which will be compounded given other ongoing and planned developments for the area.

Mitigation measures

Recommendations were made in the Civil Engineering Services Report to ensure the appropriate infrastructure for the various bulk services is provided by the Developer.

Impact Rating

The impact **is unavoidable**, but can **be fully managed**; i.e. the impact can be **fully mitigated**. The residual impact for both Applications 1 and 2 is expected to be **low negative** following the implementation of mitigation measures.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	4	5	3	0	1	4	52	**M (-)**	**M (-)**	2	5	3	0	1	3	33	**L (-)**	**M (-)**
Application 2	4	5	3	0	1	4	52	**M (-)**	**M (-)**	2	5	3	0	1	3	33	**L (-)**	**M (-)**
No-Go	-	-	-	-	-	-	-	-	-									

7.3.7 New business opportunities

Nature of impact

A new development will create opportunities for small businesses in the goods and services sectors.

Scope and consequence of impact

Application 1

A mix of residential and various commercial activities are envisaged as part of Application 1, including offices, a restaurant, gym, laundromat and spa in Precinct 2, and Business, Institutional, Education, Medical, Residential, Sport & Recreation, Tourism, Utility Service, Research & Development in Precinct 1. Commercial activities are essential for serving the needs of a community and create demand for other businesses operating in the immediate and surrounding area.

Application 2

Application 2 entails light industrial activity and related uses that include a mix of warehousing, light manufacturing and other related business and service activities. These activities will require a range of goods and services that could be provided by existing and or new businesses operating in the Stellenbosch and/or Drakenstein Municipalities.

Application 3

Application 4

No-Go Alternative

Application 1 & 2

Without the proposed Stellenbosch Bridge development, the site will not be linked to new business opportunities, unless other activities are initiated (e.g. the sand mining).

Cumulative Impact

The proposed Stellenbosch Bridge node and proposed Distell development, together with a number of housing developments proposed for the area, would create multiple opportunities for business development and/or the expansion of current businesses to support and establish these developments.

Mitigation measures

No mitigation applies as it represents a positive impact.

Impact Rating

Our assessment suggests that the impact for Applications 1 and 2 will be **medium and medium-high positive**, respectively.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	4	5	3	0	0	5	60	M (+)	M-H (+)									
Application 2	8	5	3	0	0	5	80	M-H (+)	H (+)									
No-Go	-	-	-	-	-	-	-	-	-									

7.3.8 New employment opportunities

Nature of impact

The project will create new employment opportunities for people with different types and levels of skill.

Scope and consequence of impact

A new development will create direct and indirect employment opportunities for people with different types and levels of skills if commercial components are included in the project. There are high unemployment rates in the Klapmuts area and job creation and opportunities during operations will have a significant positive impact. Recruitment is likely to be a sensitive issue and must be considered with caution, as it could lead to social unrest if the processes were deemed unfair or exclusive.

Due to the absence of information related to spending during the operational phase of the development once completed, we have attempted through research and analysis of each Application to estimate the number of potential job opportunities that may accrue once the development as envisaged is complete. Business and commercial opportunities offer the most potential for direct employment, while other opportunities from social facilities and amenities would also provide jobs for locals. It also estimated that jobs will be created by households living within the development.

In a meeting with the local Ward Councillor (refer to Section 6.3.1), Stellenbosch Bridge representatives highlighted the potential impact of the development on the community in terms of the general upliftment of the area and potential job opportunities. In particular, the proposed development would increase the local labour uptake from 2% to 3-4% and make funding available to upskill the workers.

Application 1

The total number of direct jobs are estimated using employment densities for different types of economic activity. In the absence of South African data, the Homes & Communities Agency Employment Density Guide 3rd edition (2015) employment estimates are used as a proxy. As indicated in **Figure 22**, we estimate that approximately 1 859 direct jobs opportunities will exist once the planned construction of components envisaged for Application 1 is complete. Most opportunities will exist for retail and commercial activities with an estimated Gross Lettable Area (GLA) of 23 800m^2. However, the housing component with 1577 units will also provide a number of direct employment opportunities.

Application 2

The same premise adopted for the calculation of job opportunities linked to Application 1 is applied in Application 2, which only entails industrial activity. An estimated 1087 job opportunities could arise from the development of and the provision for an estimated 76 925 m^2 of Gross Lettable Area.

Application 3

The same premise adopted for the calculation of job opportunities linked to Application 1 and 2 is applied in Application 3, which includes commercial, retail, industrial, institutional and other uses such as a sports stadium and guest house accommodation. An estimated 10 980 direct job opportunities could arise from the various non-residential and residential uses. The non-residential components entail an estimated GLA of 214 625m^2 and the housing component 1 423 apartments/flats.

Application 4

Using the same premise as above, an estimated 9 800 direct job opportunities could arise from the development of commercial, retail, industrial, institutional and other uses such a conference centre and hotel. The GLA associatd with the said components entails 262 650 m^2, with a mix of 3 000 resisential options that include aprtments/flats, town houses and a retirement village.

No-Go Alternative

Applications 1, 2, 3 & 4

Without the proposed Stellenbosch Bride development, there will be no new employment linked to the development site.

Cumulative Impact

A number of new projects could generate critical mass or economies of scale for new goods and services companies that could also provide a wider range of employment opportunities for local residents.

Mitigation measures

No mitigation applies as it represents a positive impact. To ensure employment is created for local residents, it will be essential to implementing a local procurement policy to support local business and service providers.

Impact Rating

Our assessment suggests that the impact will be **medium-high positive** for both Applications 1 and 2.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	8	5	3	0	0	5	80	M-H (+)	H (+)									
Application 2	10	5	3	0	0	5	90	M-H (+)	H (+)									
No-Go	-	-	-	-	-	-	-	-	-									

7.3.9 Revenue accruing to public authorities

Nature of impact

Monetary benefits accrue to the Stellenbosch Municipality in the form of property rates and other utility charges such as water and electricity.

Scope and consequence of impact

The Stellenbosch Municipality will levy property rates once a parcel or erf is sold and subsequently on the improved value. For this assessment, we have therefore assumed that property rates will apply to the completed dwellings and other commercial and industrial structures.

Rates accruing to the Municipality were assessed based on the development concept associated with each application. The rates accululate over the envisaged period for completion of the construction and stabilises thereafter once all the components have been constructed, are occupied or become operational. We applied an escalation of 5.5% and used the Stellenbosch Municipality Tariff Tables for the 2019/2020 financial year (Appendix 3).

Rates are based on the value of the property determined by the Stellenbosch Municipality in terms of the Municipal Rates Act. For this assessment, the construction cost is deemed to be the value of the property at the time when property rates are levied.

Application 1

The estimated annual rates income accruing to the Municipality associated with Application 1 is illustrated in **Figure 23.** The total cumulative rates over the period 2021 to 2036 from the commencement of construction to the occupation of the different components are estimated at R58.7 million for the residential component and R78.9 million for the non-resisential components.

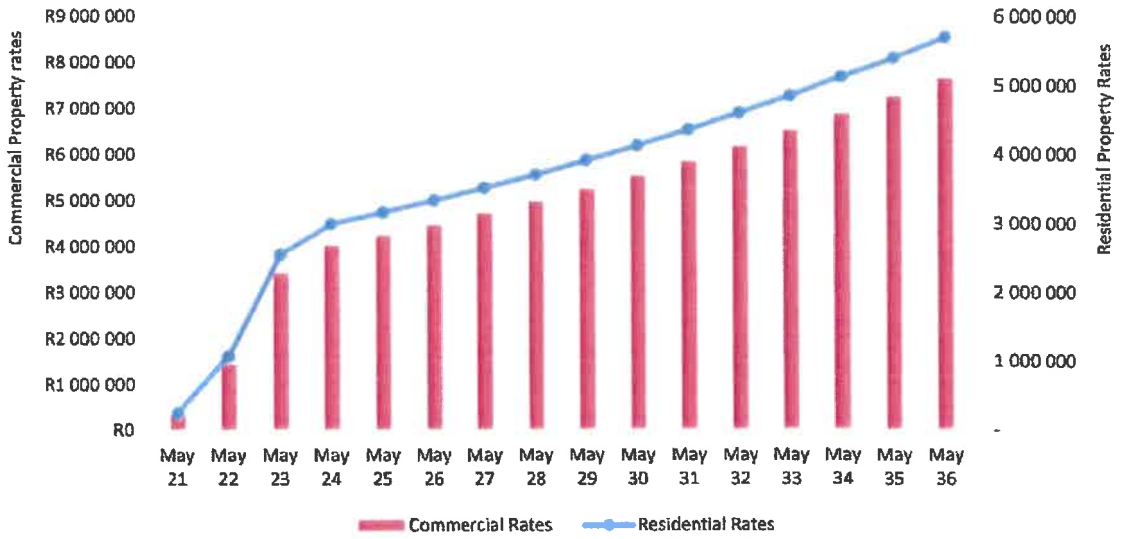


Figure 24: An assessment of the envisaged property rates income accruing the Stellenbosch Municipality from May 2021 to May 2036 (Application 1)

Source: Stellenbosch Municipality (Rates tariffs – 2019-2020) and own calculation

Application 2

The estimated annual rates income accruing to the Stellenbosch Municipality associated with Application 2 is illustrated in **Figure 24.** It is envisaged that the construction and occupation of the industrial components will be completed in four years. The total cumulative rates from May 2024 to May 2036 from the commencement of construction and occupation of the industrial components is estimated at R151.5 million. No residential component is envisaged as part of the second application.

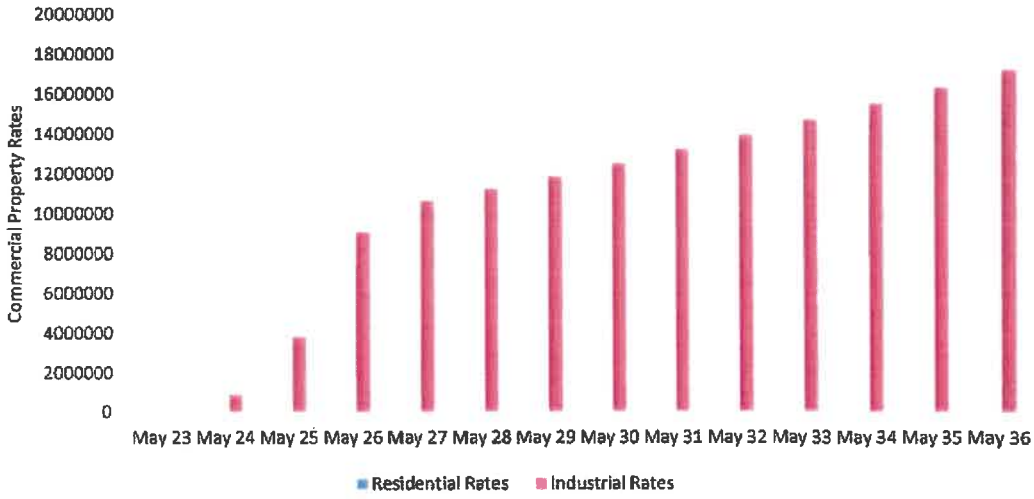


Figure 25: An assessment of the envisaged property rates income accruing the Stellenbosch Municipality from May 2024 to May 2036 (Application 2)

Source: Stellenbosch Municipality (Rates tariffs – 2019-2020) and own calculations

Application 3

The estimated annual rates income accruing to the Municipality associated with Application 3 is illustrated in **Figure 23**. A four-year construction and occupation term is applied. The total cumulative rates from May 2027 to May 2041 from the commencement of construction to the occupation of the different components for residential is R51.0 million and for non-residential R728.5 million.

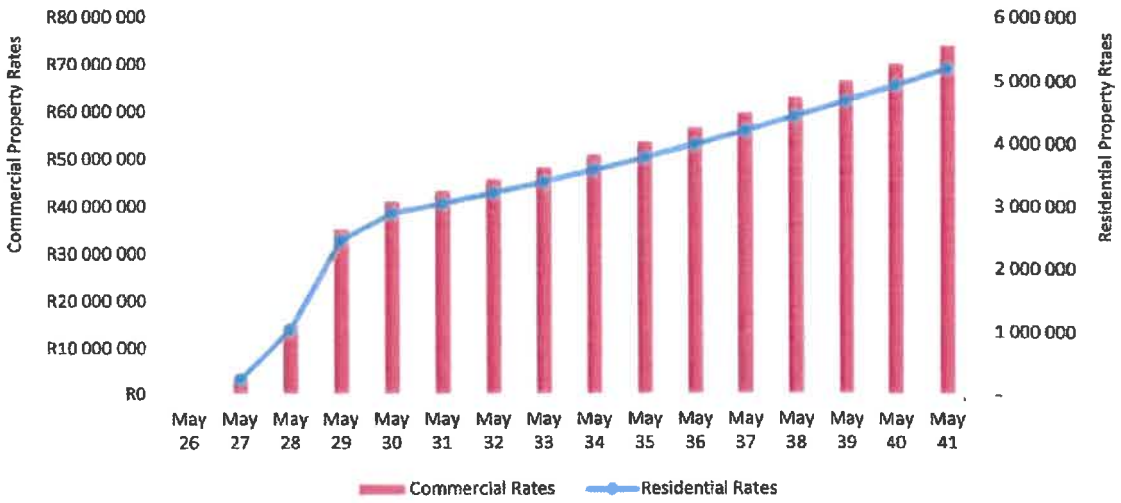


Figure 26: An assessment of the envisaged property rates income accruing the Stellenbosch Municipality from May 2027 to May 2041 (Application 3)

Source: Stellenbosch Municipality (Rates tariffs – 2019-2020) and own calculation

Application 4

The estimated annual rates income accruing to the Municipality associated with Application 4 is illustrated in **Figure 23**. A seven-year construction and occupation term is applied. The total cumulative rates from May 2030 to

May 2041 includes the commencement of construction to the occupation of the different components could resulted in an estimated R133.9 million of rates associated with resisential uses and R961.8 million for non-residential uses.

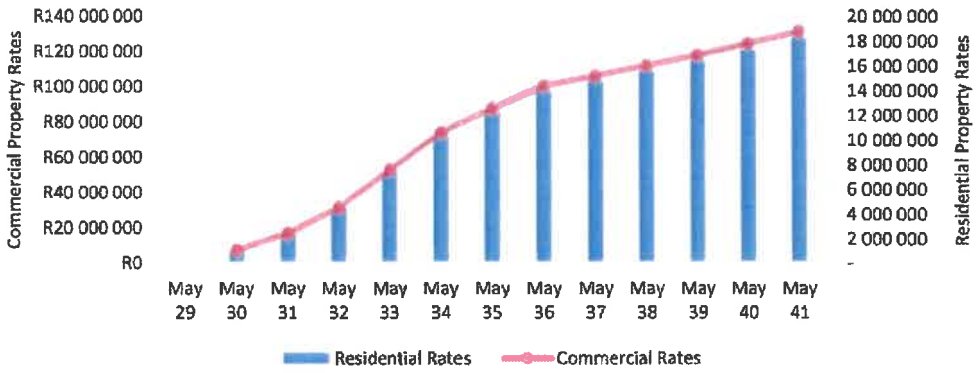


Figure 27: An assessment of the envisaged property rates income accruing the Stellenbosch Municipality from May 2030 to May 2041 (Application 4)

Source: Stellenbosch Municipality (Rates tariffs – 2019-2020) and own calculation

No-Go Alternative

Applications 1, 2, 3 & 4

Without the proposed Stellenbosch Bridge development, the envisaged monetary benefit would not accrue to the Stellenbosch Municipality.

Cumulative Impact

Other development projects in the area would further enhance the rates base of the Stellenbosch Municipality.

Mitigation measures

No mitigation applies as it represents a positive impact.

Impact Rating

Our assessment suggests that the impact will be **medium and medium-high positive** for Applications 1 and 2, respectively.

PROJECT DESCRIPTION	ENVIRONMENTAL SIGNIFICANCE																	
	BEFORE MITIGATION									AFTER MITIGATION								
	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.
Application 1	6	5	3	0	0	5	70	M (+)	M-H (+)									
Application 2	8	5	3	0	0	5	80	M-H (+)	H (+)									
Application 3																		
Application 4																		
No-Go	-	-	-	-	-	-	-	-	-									

8. SOCIAL INVESTMENT AND MONITORING INITIATIVES

8.1 Social investment and community engagement

Social investment initiatives have become a standard inclusion in the submission of development proposals to relevant government departments at a local, provincial and national level. Social capital investment may be defined as an investment into local communities by a developer beyond potential benefits intrinsically linked to the project itself. Developers are required and expected to indicate to what extent a development project would contribute to the welfare of surrounding communities through social investment initiatives that promote integration, community support and skills development, something that the developers of Stellenbosch Bridge have communicated to local structures such as the Klapmuts Community Forum.

Social investment may not serve as a determining factor for the approval of a proposed application or an amendment thereof. However, the development priorities of communities should be aligned with the social investment objectives related to the outcome of the planned development initiatives. In terms of Applications 1 and 2, the approach adopted is intended to achieve the following:

- Ensure downstream benefits from the project accrue to the local population;
- Identify community social projects that would benefit from the funds received from sales and operations of a project;
- Commit to a local procurement initiative that would achieve the following outcomes:
  - A "local first" employment policy;
  - Develop a database of skills among residents in the area; and
  - Promote the involvement of SMMEs with the required skills and capacity to obtain contracts and development opportunities.

These and other initiatives could be considered in the context of a framework developed by Multi-Purpose Business Solutions to provide developers with a sense of direction when assessing initiatives to be considered as part of a social investment programme. **Figure 25** illustrates a matrix consisting of four quadrants that are based on the nature of the intended investment and the "capital" introduced by the developer as part of the social investment.

	Abstract capital	Physical capital
Active Investment	- Bursaries - In-house training - Education - Development of small, medium and micro businesses - Youth training initiatives - Environmental initiatives (e.g. nursery and training initiatives) - SMME development opportunities - Beneficiary distributions - Person financial management assistance	- Upgrading of community health facilities (e.g. clinics) - Upgrading and maintenance of sports fields - Construction of new facilities - Low-cost housing - Provision of or upgrading of infrastructure - Development or conversion of existing buildings to multi-purpose centres - Community gardening project and farming projects
Passive Investment	- Establishment of community trust fund for beneficiaries, the environment and development - Transfer land to a community entity for Agriculture or other purposes	- Build facility and transfer ownership to a community trust for use by a community

Figure 28: An illustrative matrix of social investment options for developers

Source: Multi-Purpose Business Solutions
Active and passive investment of abstract capital: These investments refer specifically to time and funds invested in initiatives such as bursaries and in-house training. Passive investment refers specifically to the allocation of funds to a community trust or some other vehicle that assumes responsibility for the disbursement of the funds to community third parties and projects.

Active and passive investment in physical capital: Active participation implies direct investment in the needs of communities by the provision of new or the upgrading of existing community facilities such as healthcare centres, schools and recreation and sports facilities. Passive investment in this context refers specifically to the establishment of a facility for the community, which is then transferred to a trust or other type of entity (vehicle) with the sole purpose of administrating and maintaining the facility on behalf of the community.

8.2 SOCIO-ECONOMIC IMPACT KEY PERFORMANCE INDICATORS

Essential components of a Protocol for Social Management (PSM) for the development (Applications 1 and 2 in this case) includes monitoring, reviewing and evaluation processes to assess socio-economic contributions. Continuous and periodic monitoring and evaluation are required to ensure the achievement of milestones and the overall success of achieving the socio-economic objectives envisaged for the Stellenbosch Bridge project.

The successful implementation and development of the project would ultimately be assessed on the contribution the development makes during construction and operations to the social development and economic goals of employment creation, skills development and training, small business development and capacity building in the area. The Key Performance Areas (KPAs) offer strategic direction as measurable outputs for the socio-economic development contributions of contractors, especially for large capital-intensive projects.

The following KPAs are outcomes based on the scope of social engagement activities:

- Procurement from, or sub-contracting to local enterprises;
- Procurement of local materials/resources;
- Employment of local people (persons residing in the Stellenbosch Municipal area, with specific reference to the Klapmuts area, for a period exceeding 3 years);
- Training (onsite/offsite) of employees from the local area; and
- Procurement from local black empowerment entities and/or black persons;
- Sub-contracting to local black empowerment entities and/or black persons;
- Procurement from, or sub-contracting to new local black empowerment entities;

A clear distinction as highlighted above must be made between Local Content and Non-local content. In the context of the proposed development, Local Content refers to the Cape Winelands District with a specific emphasis on the Stellenbosch and Drakenstein Municipal areas.

9. CONCLUSIONS & RECOMMENDATIONS

9.1 Fit with spatial planning

To provide some context, the provincial, regional and metro SDFs (together with related frameworks, interpretation reports and discussion documents) and Local Economic Development plans and strategies (together with other documents that offer guidance) are considered as a premise for this part of the assessment. In addition, other planning and development guidelines and policies are considered where appropriate.

In keeping with the *Guidelines for Economic and Social and Specialist input into EIA Processes* (CSIR, 2005 and Department of Environmental Affairs and Development Planning, 2007), the project should fit with planning frameworks and is desirable from a societal cost-benefit perspective. To provide some context, the provincial, regional and metro SDFs (together with related frameworks, interpretation reports and discussion documents) and Local Economic Development plans and strategies (together with other documents that offer guidance) were considered as a premise for this part of the assessment. Other planning and development guidelines and policies were also considered where appropriate.

The Stellenbosch Spatial Development Framework and IDP are the primary planning tools for the Stellenbosch area and therefore the proposed development, as it incorporates the provisions of all other broader level plans for the area and therefore forms the initial basis for the economic assessment of the proposed Stellenbosch Bridge development. Stellenbosch town and Klapmuts were identified as spatial areas for priority development over the MSDF planning period are (p. 74).

Our assessment of the spatial planning frameworks of the local, district and provincial authorities suggests that the proposed Stellenbosch Bridge development supports and fits with the spatial planning principles of the Stellenbosch Municipality as indicated in the IDP and SDF from a socio-economic perspective and specifically with the focus on Klapmuts. The Stellenbosch Bridge development is in the delineated urban edge of Klapmuts and the part not included, is earmarked for agriculture.

The proposed project is positioned as a development that is intended to contribute towards business, housing and infrastructure development in the Klapmuts area, but specifically in a node where the community needs private investment to uplift their socio-economic well-being and create more sustainable employment.

9.2 Summary of impacts

The question that needs to be addressed in the context of perceptions and concerns raised by Interested and Affected Parties is whether the proposed development is desirable from a societal cost-benefit perspective? Several issues of a social nature were raised and discussed in this report and the need thus exists to determine whether mitigation could be applied and to what extent the developer would be willing to introduce the recommended mitigation measures.

Development Applications

- **Application 1** entails the reallocation of the existing rights approved on Farm 742/5 for the redevelopment of the site as part of the Innovation precinct and in terms of the services capacity already provided for the Klapmuts Hills development. The application will involve amendment of the approved Development Framework Plan, Phasing Plan, Subdivision Plan and conditions of approval to accommodate the revised development layout plan. The revised development plan will tie in with the draft Stellenbosch Bridge Development Framework that will be submitted as part of Application 3.
- **Application 2** refers to the Rezoning and Subdivision of Remainder Farm 744/2, which falls within the Klapmuts urban edge. The site is the portion of land situated between the western edge of the existing Klapmuts urban area and the Klapmuts Hills site to the west (Portion 5 of Farm 742, Paarl). Despite its agricultural zoning, the

site has been included within the Klapmuts urban edge for many years and envisaged to form part of the town's expansion westwards

Development Alternatives

The **No-Go alternative** implies that the *status quo* is maintained, i.e. the land stays vacant. However, given the size of the property and its strategic location, there will most likely be future pressure for development if the current proposal is not approved.

Impact Ratings

To provide a perspective of the net societal benefits and costs associated with the proposed project, the following table summarises the different the socio-economic impacts associated with the proposed Stellenbosch Bridge development, and their respective significance before and after implementation of mitigation measures (i.e. the residual impact) as proposed by the relevant specialists.

Nature of the Impact	Rating before mitigation		Rating after mitigation (Residual impact)	
	Application 1	Application 2	Application 1	Application 2
Construction				
Traffic flows along access roads	80	80	60	60
Nuisance factors (dust and noise)	65	65	55	55
Influx of job-seekers	65	65	55	55
Increase in local crime	52	52	36	36
New employment opportunities	55	65		
Economic income	55	55		
Operations				
Sense of place	76	76	51	51
Provision of housing	85	85		
Surrounding property values — Existing residential erven	51	51	39	39
Unimproved land	36	36		
Traffic flows along access roads	95	75	85	65
Increase in local crime	60	60	33	33
Bulk infrastructure requirements/contributions	52	52	33	33
New employment opportunities	60	80		
Local business development	80	90		
Revenue accruing to public authorities	70	80		

Significant Ratings:

	Positive	40 – 74	Medium Negative	[illegible]	[illegible]
<40	Low Negative	75 – 99	Medium-High Negative	125 – 150	Very High Negative

Potential negative impacts

The following **concerns** (medium or higher impact after mitigation) have been identified:

1. **Impact on traffic flows:** A significant increase in traffic along the access routes can be expected during construction and operations, which will negatively impact surrounding land-users in particular

2. **Sense of place**: The relatively high-density development will be visible to a large number of receptors and may negatively affect surrounding land users.
3. **Nuisance factors**, in particular dust and noise generated during the introduction of services and construction of top structures;
4. **An influx of job-seekers** during the construction phase could result in additional people settling in Klapmuts and a subsequent burden on local social services.

Potential positive and prescribed impacts

A number of benefits are associated with the proposed Stellenbosch Bridge development:

5. **Job creation:** The findings of the employment analysis are considered in the context of Application 1 and Application 2, both of which are phased over 4 years and envisaged to run in parallel. Application 1 of the Stellenbosch Bridge development could sustain on average 1 090 to 1 199 jobs per annum over 4 years of the construction period. If employment is considered at the Stellenbosch Municipal level, 1 023 to 1 125 jobs will be created in the Stellenbosch Municipal area per annum over 4 years envisaged for the construction. For Application 2, an average of 1 439 to 1 583 jobs opportunities per annum could be sustained per annum over 4 years of the construction period. Alternatively, Application 2 could sustain 1 352 to 1 487 jobs per annum in the Stellenbosch Municipal Area over 4 years.

   During operations, an estimated total of 1 090 direct jobs opportunities will exist once the planned construction of components envisaged for Application 1 is complete. Most opportunities will exist for retail, commercial and to an extent the housing component of the project. Application 2 entails industrial activity. An estimated 1 900 job opportunities could arise from the development of and provision for 90 500 m^2 of Gross lettable Area. These figures do not include additional employment (indirect and induced employment) created by the needs of the operating components and outsourcing opportunities.
6. **Economic income:** A combined initial investment of R1 204 million (R963 million net of the initial import leakage) for Application 1 will give rise to a multiplied output increase in GVA of R4 192 million in the Western Cape Province over the four-year construction period. Approximately R628 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project. For Application 2, a combined initial investment of R1 486 million (R1 188 million net of the initial import leakage) will give rise to a multiplied output increase in GVA of R4 101 million in the Western Cape Province over the construction period. In addition, approximately R 614 million will accrue to the Stellenbosch Municipal area over and above the initial direct capital expenditure related to the project.
7. **Revenue accruing to public authorities:** The total cumulative rates over the first 10 years from the commencement of construction and occupation of the different components is estimated at R62.9 million. The total cumulative rates over the first 10 years from the commencement of construction of the industrial components is estimated at R128.9 million.
8. **New business development**: A mix of residential and various commercial activities are envisaged as part of Application 1, including offices, a restaurant, gym, laundromat and spa in Precinct 2, and Business, Institutional, Education, Medical, Residential, Sport & Recreation, Tourism, Utility Service, Research & Development in Precinct 1. Commercial activities are essential for serving the needs of a community and create demand for other businesses operating in the immediate and surrounding area. Application 2 entails light industrial activity and related uses that would include a mix of warehousing, light manufacturing and other related business and service activities. These activities will require a range of goods and services that could be provided by existing and or new businesses operating in the Stellenbosch and/or Drakenstein Municipalities.

Cumulative impacts

Cumulative impacts refer to any other developments as well as existing activities within the immediate area that could compound any positive or negative impacts associated with the proposed development. This particularly relates to the ongoing/planned residential developments just north and along the R44 further south-east of Klapmuts.

The potential **negative impacts** would be compounded if additional developments were introduced in the immediate and surrounding areas. These impacts would typically relate to sense of place, traffic, infrastructure requirements, crime and nuisance factors. However, a number of developments in the Klapmuts area could also be compound employment and economic income **benefits**.

Mitigation measures

Many of the negative socio-economic impacts that were identified (summarised below) could be mitigated by introducing the measures proposed by various specialists that must be considered as requirements for approval of the development. Monitoring of specifically the social impact and assessing the outcomes over time would further enhance the social and economic fabric within the development and the surrounding communities.

Summary of mitigation measures suggested for the different impacts:

Impact	Mitigation measures
	Construction phase
Large construction vehicular traffic	The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations. These improvements should also ease the traffic flows during the estimated 5-year construction phase.
Nuisance factors (dust and noise)	Dust and noise emissions during the construction period should be minimised by means of a Construction Environmental Management Plan (CEMP).
Influx of job-seekers	Contractors need to show a commitment to employ people from the Stellenbosch and Drakenstein Municipalities whenever possible.
Increase in local crime	Co-operation between the Developer and contractors and on-site security measures, such as perimeter fencing, controlled access and security guards and patrols will minimise the risk.
	Operational phase
Sense of place – surrounding land-users	Mitigation measures were proposed in the Visual Impact Assessments and Heritage Impact Assessment and should be implemented by the Developers
Surrounding property values: Existing residential erven	Implementation of the recommendations made by the various specialists to mitigate potential negative impacts (such as visual, traffic and nuisance factors) will be essential to minimise negative impacts for surrounding landowners.
Increased vehicular traffic	The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations.
Increase in local crime	Local residents must be employed to reduce the level of unemployment in the Klapmuts area. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols could also discourage criminals from the area.
Bulk infrastructure capacity	Recommendations were made in the Civil Engineering Services Report to ensure the appropriate infrastructure for the various bulk services is provided by the Developer.

9.3 Recommendations

The following **recommendations with specific reference to the socio-economic context** are proposed to address various matters related to Application 1 and 2 of the Stellenbosch Bridge development. The mitigation measures proposed in the following table should be consolidated into an Implementation Plan.

Phase	Mitigation measures
Pre-construction	**Procurement Strategy** that includes the following and applies to the Stellenbosch Bridge development: (f) Conduct a skills audit among the local Klapmuts residents, especially the unemployed to ascertain their ability and skills to accept employment during the construction phase ; (g) Initiate the activity for both Application 1 and 2; (h) Strategy is the responsibility of the contractor(s) collectively under the guidance of Stellenbosch Bridge; (i) Focus on opportunities for local labour in the surrounding areas and businesses as a priority. Contractors are required to provide an indication of the geographical location of sub-contractors (businesses) and local labour they intend to use or employ on the project over the duration of the construction phase; and (j) Local contractors in the Stellenbosch and Drakenstein areas be invited to tender for work in the context of the terms and conditions included in RFP documentation.
Pre-construction & Construction	**Communication Protocols** that address directly and indirectly affected residents and surrounding land owners, with specific reference to activities, timelines and intended impacts related to the construction phase and all related activities associated with the implementation of the project (i.e. during the operational phase). **Objectives** • To orientate, generate awareness and gain positive attitudes among stakeholders as far as possible; and • To engage and inform stakeholders of progress regarding all phases of construction. **Target audience** • Property owners and users of the land portions directly surrounding the proposed activity; and • Other stakeholders and property owners that may be affected. **Major types of messages** • Inform directly affected residents on the periphery of the site earmarked for the project others that would frequent the area; • Commencement date for construction activities related to the project; • Duration and extent of the construction activities and where applicable, with an emphasis on individual activities; • Progress updates, including any delays with a construction-related activity; and • Ensure appropriate signage is introduced to warn persons frequenting the area, those residing adjacent to the development area.
Operations	Develop a mechanism for business opportunities within the development that will assist to balance larger and smaller business interests in terms of service provision and creating a socially sustainable community.
Pre-construction and Construction	The **Protocol for Social Management (PSM)** is a working framework document that identifies key measurement indicators and sets out the procedures for tracking, monitoring, calculating and verifying the impacts associated with the project. This PSM must be used for the planning and establishment of Applications 1 and 2. Adherence to a PSM framework is necessary for the successful measurement and tracking of the impacts associated with the development during the construction phases of Applications 1 and 2.

Phase	Mitigation measures
	The PSM framework should be developed into an action plan that will be prepared in terms of the conventions indicated in Section 8 of the Report.

9.4 Impact statement

The Stellenbosch Bridge Development with specific reference to Applications 1 and 2 in the Klapmuts area of the Stellenbosch Municipality, is supported on condition that the recommendations/mitigation measures included in this report, are implemented. In addition, the recommended enhancement and mitigation measures contained in other specialist reports and those required to support mitigation of several impacts identified and assessed in the Socio-economic Impact Assessment report, should be implemented.

The Protocol for Social Management (PSM) must be used for the planning and establishment of the project before and during the construction phase. Adherence to a Social Management Protocol framework is necessary to establish a vibrant and sustainable Klapmuts community and for the successful implementation and management thereof during construction.

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ANNEXURE A: REGISTER OF STAKEHOLDER RESPONSES

A register of stakeholders or representatives that were contacted for their comments are provided below.

Respondent	Affiliation	Contact number	Email address	Date of interaction
Emily Fredericks	Ward Councillor: Stellenbosch Municipality (Ward 18)		Emily.Fredericks@stellenbosch.gov.za	Email 30/03/2020
Patricia Botha	Stellenbosch Interest Group Chairperson	021 886 4741 021 887 6727	info@stellenboschinterestgroup.org bothapatricia@gmail.com	Email 30/03/2020
Andre Pelser	Stellenbosch Ratepayers		secretary@stellenboschratepayers.org andre_p@mweb.co.za	Email 30/03/2020
Hannes van Zyl	Stellenbosch Heritage Foundation: Chairman		hannesvanzyl@mweb.co.za hannesvzee@gmail.com	Email 30/03/2020
	Farm Re/1460 MULDERSVLEI ESTATES PTY LTD	0218844433	info@muldersvlei.co.za	Email 30/03/2020
	Farm 1/1063 DELHEIM WINES PTY LTD	021-8884600	accounts@delheim.com	Email 30/03/2020
	Farm Re/744 LE BONHEUR WINE ESTATE PTY LTD	021-8895001	Rebekka.swiegers@lavenir.co.za	Email 30/03/2020
	Farm 5/742 STELLENBOSCH WINE AND COUNTRY ESTATE	021-9134938 021-9134921 0824648700	kgg@diamant.za.com	Email 30/03/2020
	Farm 7/774 BABYLONS TOREN PTY LTD	0218085600 0767394949	Carmen@babylonstoren.com	Email 30/03/2020
	Farm 5/737 CULTURA FRESH PTY LTD	0834547296	marianne@culturafresh.co.za	Email 30/03/2020

ANNEXURE B: IMPACT RATING METHODOLOGY

The significance of each potential impact, with and without the implementation of the proposed mitigation measures, is assessed based on the following variables (evaluation components):

- **Extent** (spatial scale);
- **Magnitude**;
- **Duration** (time scale);
- **Probability** of occurrence;
- **Irreplaceable** loss of resources; and
- **Reversibility** of the impact.

The evaluation components, ranking scales and descriptions for assessing these impacts are provided below.

Evaluation components, ranking scales and descriptions (criteria)

Evaluation Component	Ranking Scale and Description (Criteria)
MAGNITUDE of NEGATIVE IMPACT (at the indicated spatial scale)	**10 - Very high (negative):** Biophysical and/or social functions and/or processes might be *severely* altered. **8 - High (negative):** Biophysical and/or social functions and/or processes might be *considerably* altered. **6 - Medium (negative):** Biophysical and/or social functions and/or processes might be *notably* altered. **4 - Low (negative):** Biophysical and/or social functions and/or processes might be *slightly* altered. **2 - Very Low (negative):** Biophysical and/or social functions and/or processes might be *negligibly* altered. **0 - Zero:** Biophysical and/or social functions and/or processes will remain *unaltered.*
MAGNITUDE of POSITIVE IMPACT (at the indicated spatial scale)	**10 - Very high (positive):** Biophysical and/or social functions and/or processes might be *substantially* enhanced. **8 - High (positive):** Biophysical and/or social functions and/or processes might be *considerably* enhanced. **6 - Medium (positive):** Biophysical and/or social functions and/or processes might be *notably* enhanced. **4 - Low (positive):** Biophysical and/or social functions and/or processes might be *slightly* enhanced. **2 - Very Low (positive):** Biophysical and/or social functions and/or processes might be *negligibly* enhanced. **0 - Zero:** Biophysical and/or social functions and/or processes will remain *unaltered.*
DURATION	**5 - Permanent** **4 - Long term:** Impact ceases after Operational Phase/life of the activity (~ 20 years). **3 - Medium term:** Impact might occur during the Operational Phase/life of the activity (0 to 20 years). **2 - Short term:** Impact might occur during the Construction Phase (~ 1 year). **1 - Immediate**
EXTENT (or spatial scale/influence of impact)	**5 - International:** Beyond National boundaries. **4 - National:** Beyond Provincial boundaries and within National boundaries. **3 - Regional:** Beyond 5 km of the proposed development and within Provincial boundaries. **2 - Local:** Within 5 km of the proposed development. **1 - Site-specific:** On site or within 100 m of the site boundary. **0 - None**
IRREPLACEABLE (loss of resources)	**5 - Definite** loss of irreplaceable resources. **4 - High** potential for loss of irreplaceable resources. **3 - Moderate** potential for loss of irreplaceable resources. **2 - Low** potential for loss of irreplaceable resources. **1 - Very low** potential for loss of irreplaceable resources. **0 - None**
REVERSIBILITY (of impact)	**5 - Impact cannot** be reversed. **4 - Low** potential that impact might be reversed. **3 - Moderate** potential that impact might be reversed. **2 - High** potential that impact might be reversed. **1 - Impact will be** reversible. **0 -** No impact.

Evaluation Component	Ranking Scale and Description (Criteria)
PROBABILITY (of occurrence)	**5 - Definite:** >95% chance of the potential impact occurring. **4 - High probability:** 75% - 95% chance of the potential impact occurring. **3 - Medium probability:** 25% - 75% chance of the potential impact occurring. **2 - Low probability:** 5% - 25% chance of the potential impact occurring. **1 - Improbable:** <5% chance of the potential impact occurring.

Definition of significance ratings (positive and negative)

Significance Points	Environmental Significance	Description
125 – 150	**Very high (VH)**	An impact of very high significance will mean that the project cannot proceed, and that impacts are irreversible, regardless of available mitigation options.
100 – 124	**High (H)**	An impact of high significance which could influence a decision about whether or not to proceed with the proposed project, regardless of available mitigation options. **Cumulative Impacts:** The activity is one of several similar past, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and/or socio-economic resources of local, regional or national concern.
75 – 99	**Medium-high (MH)**	If left unmanaged, an impact of medium-high significance could influence a decision about whether or not to proceed with a proposed project. Mitigation options should be re-evaluated at.
40 – 74	**Medium (M)**	If left unmanaged, an impact of medium significance could influence a decision about whether or not to proceed with a proposed project. **Cumulative Impacts:** The activity is one of a few similar past, present or future activities in the same geographical area, and might have a combined impact of moderate significance on the natural, cultural, and/or socio-economic resources of local, regional or national concern.
<40	**Low (L)**	An impact of low is likely to contribute to positive decisions about whether or not to proceed with the project. It will have little real effect and is unlikely to have an influence on project design or alternative motivation. **Cumulative Impacts:** The activity is localised and might have a negligible cumulative impact.
+	**Positive impact (+)**	A positive impact is likely to result in a positive consequence/effect, and is likely to contribute to positive decisions about whether or not to proceed with the project.

Once the evaluation components have been ranked for each impact, the significance of the potential impact should be calculated using the following formula:

SP (Significance Points) = (Magnitude + Duration + Extent + Irreplaceable + Reversibility) X Probability

The maximum value is 150 SP (Significance Points).

ANNEXURE C: SUMMARY OF IMPACTS

Summary of Impacts during Construction

PROJECT ALTERNATIVE	POTENTIAL ENVIRONMENTAL IMPACT/ NATURE OF IMPACT	ENVIRONMENTAL SIGNIFICANCE																PROPOSED MITIGATION
		BEFORE MITIGATION								AFTER MITIGATION								
		M	D	E	I	R	P	TOTAL (SP)	S	CUMUL	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL	
Potential social impacts on local communities during construction																				
Traffic flows along access routes																				
Application 1	The movement of large construction and related vehicles will affect traffic flows along access routes	10	2	3	0	1	5	80	M-H (-)		6	2	3	0	1	5	60	M (-)	M-H (-)	The TISs recommends several road improvements required for acceptable traffic flows during operations. These improvements should also ease the traffic flows during the estimated 5-year construction phase.
Application 2		10	2	3	0	1	5	80	M-H (-)		6	2	3	0	1	5	60	M (-)	M-H (-)	
"No-Go"	No additional impact linked to proposed site	-		-	-	-		-												
Nuisance factors (dust and noise)																				
Application 1	Construction activities create dust and noise at the development site that would affect nearby receptors	8	2	2	0	1	5	65	M (-)	M-H (-)	6	2	2	0	1	5	55	M (-)	M (-)	Dust and noise emissions during the construction period should be minimised by means of a Construction Environmental Management Plan (CEMP).
Application 2		8	2	2	0	1	5	65	M (-)	M-H (-)	6	2	2	0	1	5	55	M (-)	M (-)	
"No-Go"	No additional impact linked to proposed site	-						-	-	-										
Influx of job-seekers																				
Application 1	An influx of job seekers will lead to competition with local residents for employment opportunities	8	2	2	0	1	5	65	M (-)	M-H (-)	6	2	2	0	1	5	55	M (-)	M (-)	Contractors need to show a commitment to employ people from the Stellenbosch and Drakenstein Municipalities whenever possible.
Application 2		8	2	2	0	1	5	65	M (-)	M-H (-)	6	2	2	0	1	5	55	M (-)	M (-)	
"No-Go"	No additional impact linked to proposed site					-	-	-	-	-										
Local crime																				
Application 1	The presence of construction workers may increase the risk of criminal activities in the surrounding area	8	2	1	1	1	4	52	M (-)	M (-)	4	2	1	1	1	4	36	L (-)	L (-)	Co-operation between the Developer and contractors and on-site security measures, such as perimeter fencing, controlled access and security guards and patrols will minimise the risk.
Application 2		8	2	1	1	1	4	52	M (-)	M (-)	4	2	1	1	1	4	36	L (-)	L (-)	
"No-Go"	No additional impact linked to proposed site, but vacated buildings could attract squatters or criminals					-		-	-	-										

Summary of Impacts during Operations

PROJECT ALTERNATIVE	POTENTIAL ENVIRONMENTAL IMPACT/ NATURE OF IMPACT	ENVIRONMENTAL SIGNIFICANCE																	PROPOSED MITIGATION
		BEFORE MITIGATION								AFTER MITIGATION									
		M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	M	D	E	I	R	P	TOTAL (SP)	S	CUMUL.	
Potential social impacts on local communities during operations																				
Sense of Place: Adjacent landusers																				
Application 1	The proposed development will affect the sense of place for the surrounding land users	6	5	2	1	5	4	76	M-H (-)	M-H (-)	4	5	2	1	5	3	51	M (-)	M (-)	Mitigation measures were proposed in the Visual Impact Assessments and Heritage Impact Assessment and should be implemented by the Developers.
Application 2		6	5	2	1	5	4	76	M-H (-)	M-H (-)	4	5	2	1	5	3	51	M (-)	M (-)	
"No-Go"	The site would most likely deteriorate further	-	-	-	-	-	-	-	-											
Provision of housing																				
Application 1	The residential component will address a growing demand for housing in the Stellenbosch Municipal area	10	5	2	0	0	5	85	M-H (+)	H (+)										No mitigation applies as it represents a positive impact.
Application 2		10	5	2	0	0	5	85	M-H (+)	H (+)										
"No-Go"	No contribution towards housing	-	-	-	-	-	-	-	-											
Surrounding property values: Existing residential erven																				
Application 1	A new development may affect the current and future perceived value of other properties in the surrounding area	6	5	2	1	3	3	51	M (-)	M (-)	2	5	2	1	3	3	39	L (-)	M (-)	Implementation of the recommendations made by the various specialists to mitigate potential negative impacts (such as visual, traffic and nuisance factors) will be essential to minimise negative impacts for surrounding landowners.
Application 2		6	5	2	1	3	3	51	M (-)	M (-)	2	5	2	1	3	3	39	L (-)	M (-)	
"No-Go"	No additional impact linked to proposed site	-			-	-	-	-	-	-										
Surrounding property values: Unimproved land																				
Application 1	A new development may affect the current and future perceived value of other properties in the surrounding area	4	5	3	1	5	2	36	L (-)	L (-)										No mitigation applies as it represents a positive impact.
Application 2		4	5	3	1	5	2	36	L (-)	L (-)										
"No-Go"	No additional impact linked to proposed site	-	-		-	-	-	-	-	-										
Traffic flows along access routes																				
Application 1	The large residential and industrial components will increase vehicular movement along the access routes.	10	5	3	0	1	5	95	M-H (-)		8	5	3	0	1	5	85	M-H (-)		The TISs recommends several road improvements that are required to ensure acceptable traffic flows during operations.
Application 2		6	5	3	0	1	5	75	M-H (-)	M-H (-)	4	5	3	0	1	5	65	M (-)	M-H (-)	
"No-Go"	No additional impact linked to proposed site					-	-	-	-	-										

Summary of impacts during Operations

PROJECT ALTERNATIVE	POTENTIAL ENVIRONMENTAL IMPACT/ NATURE OF IMPACT	ENVIRONMENTAL SIGNIFICANCE																		PROPOSED MITIGATION
		BEFORE MITIGATION								AFTER MITIGATION										
		M	D	E	I	R	P	TOTAL (SP)	S	CL/REVL	M	D	E	I	R	P	TOTAL (SP)	S	CL/REVL	
Potential economic impacts on local communities during operations																				
Local crime																				
Application 1	Effective security at the proposed development is essential to safeguard against criminal elements	6	5	2	1	1	4	60	M (-)	M-H (-)	2	5	2	1	1	3	33	L (-)	M (-)	Local residents must be employed to reduce the level of unemployment in the Klapmuts area. On-site security measures, such as perimeter fencing, controlled access and security guards and patrols could also discourage criminals from the area.
Application 2		6	5	2	1	1	4	60	M (-)	M-H (-)	2	5	2	1	1	3	33	L (-)	M (-)	
"No-Go"	No additional impact linked to proposed site, but vacated buildings could attract squatters or criminals	-	-	-	-	-	-	-	-	-										
Bulk infrastructure requirements/contributions																				
Application 1	Infrastructure requirements relate to the provision of bulk infrastructure for sewerage, water and electrical supply, solid waste disposal and stormwater management	4	5	3	0	1	4	52	M (-)	M (-)	2	5	3	0	1	3	33	L (-)	M (-)	Recommendations were made in the Civil Engineering Services Report to ensure the appropriate infrastructure for the various bulk services is provided by the Developer.
Application 2		4	5	3	0	1	4	52	M (-)	M (-)	2	5	3	0	1	3	33	L (-)	M (-)	
"No-Go"	No additional infrastructure demand linked to proposed site	-	-	-	-	-	-	-	-	-										
Local business development																				
Application 1	A new development will create opportunities for small businesses in the goods and services sectors	4	5	3	0	0	5	60	M (+)	M-H (+)										No mitigation applies as it represents a positive impact.
Application 2		8	5	3	0	0	5	80	M-H (+)	H (+)										
"No-Go"	No additional impact linked to proposed site	-			-	-	-	-	-											
New employment opportunities																				
Application 1	The project will create new employment opportunities for people with different types and levels of skills	8	5	3	0	0	5	80	M-H (+)	H (+)										No mitigation applies as it represents a positive impact.
Application 2		10	5	3	0	0	5	90	M-H (+)	H (+)										
"No-Go"	No additional impact linked to proposed site	-			-	-				-										
Revenue accruing to public authorities																				
Application 1	Monetary benefits accrue to the Stellenbosch Municipality in the form of property rates and other utility charges such as water and electricity	6	5	3	0	0	5	70	M (+)	M-H (+)										No mitigation applies as it represents a positive impact.
Application 2		8	5	3	0	0	5	80	M-H (+)	H (+)										
"No-Go"	No additional impact linked to proposed site	-			-	-	-	-	-	-										

ANNEXURE D: APPENDIX 6 CHECKLIST

Compliance with Appendix 6 of the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014

Requirements of Appendix 6 of the 2014 EIA Regulations	Included in the report in:
(1) A specialist report prepared in terms of these Regulations must contain-(a) details of- (i) the specialist who prepared the report; and (ii) the expertise of that specialist to compile a specialist report including a *curriculum vitae*;	Section 1.1, Annexure F
(b) a declaration that the specialist is independent in a form as may be specified by the competent authority;	Annexure E
(c) an indication of the scope of, and the purpose for which the report was prepared;	Section 1: Introduction & Terms of Reference
(cA) an indication of the quality and age of base data used for the specialist report;	Section 1.5: Limitations
(cB) a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change;	Section 2: Project description and Section 7: Assessment of Impacts
(d) the duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;	No site visit has been conducted due to the lock down
(e) a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Section 1.3: Approach & Methodology
(f) details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternatives;	Section 2: Project description
(g) an identification of any areas to be avoided, including buffers;	N/A
(h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Section 2: Project description
(i) a description of any assumptions made and any uncertainties or gaps in knowledge;	Section 1.4 & 1.5: Assumptions and Limitations
(j) a description of the findings and potential implications of such findings on the impact of the proposed activity or activities;	Section 7: Assessment of Impacts
(k) any mitigation measures for inclusion in the EMPr;	Section 9.3: Recommendations
(l) any conditions for inclusion in the environmental authorisation;	Section 9.3: Recommendations
(m) any monitoring requirements for inclusion in the EMPr or environmental authorisation;	Section 8.2
n) a reasoned opinion- (i) whether the proposed activity or portions thereof should be authorised; and (iA) regarding the acceptability of the proposed activity or activities; and (ii) if the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;	Section 9.4: Impact Statement
(o) a description of any consultation process that was undertaken during the course of preparing the specialist report;	Section 1.3 and Annexure A
(p) a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	Section 6: Perceptions and Concerns of key stakeholder groups. Reponses to comments are provided as part of the EIA process and are included in a Comments and Response table prepared by the EAP.
(q) any other information requested by the competent authority.	Not applicable
(2) Where a government notice gazetted by the Minister provides for any proposal or minimum information requirement to be applied to a specialist reports, the requirements as indicated in such notice will apply.	Report prepared in accordance with Economic and Social Specialist input Guidelines issued by Department of Environmental Affairs and Development Planning.

ANNEXURE E: DECLARATION OF INDEPENDENCE

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

33 Cynaroides Street
Paradyskloof, Stellenbosch
7600

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	
NEAS Reference Number:	
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014

PROJECT TITLE

Socio-Economic Impact Assessment for Applications 1 and 2 of the proposed Stellenbosch Bridge development in Klapmuts, Stellenbosch

Specialist:			
Contact person:	Multi-Purpose Business Solutions		
Postal address:	Dr. Jonathan Bloom		
Postal code:	33 Cynaroides Street, Paradyskloof, Stellenbosch		
Telephone:	7600	Cell:	083 299 8523
E-mail:	021-880 0774	Fax:	086 500 2546
Professional affiliation(s) (If any)	jzbloom@mweb.co.za		

Project Consultant:			
Contact person:	Aubrey Withers		
Postal address:	PO Box 12410, Die Boord		
Postal code:	7613		
Telephone:	021-887 4000	Cell:	083 658 8744
E-mail:	aubrey@legacyemc.co.za	Fax:	021-205 1966

4.2 The specialist appointed in terms of the Regulations_

I, **Jonathan Bloom**, declare that –

General declaration:

I act as the independent specialist in this application;

I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;

I declare that there are no circumstances that may compromise my objectivity in performing such work;

I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;

I will comply with the Act, Regulations and all other applicable legislation;

I have no, and will not engage in, conflicting interests in the undertaking of the activity;

I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;

All the particulars furnished by me in this form are true and correct; and

I realise that a false declaration is an offense in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of the specialist:

Multi-Purpose Business Solutions cc
Name of company (if applicable):

April 2020
Date:

ANNEXURE F: ABBREVIATED *CURRICULUM VITAE* OF SPECIALIST

DR. JONATHAN BLOOM

NAME:	Jonathan Zorah Bloom
ID NUMBER:	670626 5061 081
CURRENT STATUS:	Managing Member, Multi-Purpose Business Solutions cc
NATIONALITY:	South African Citizen
DATE OF BIRTH:	26 June 1967
HEALTH:	Excellent
MARITAL STATUS:	Married, with two children
LINGUISTIC ABILITIES:	Proficient in English and Afrikaans
ADDRESS (Office):	33 Cynaroides Street, Paradyskloof, Stellenbosch, 7600 P.O. Box 12814, Die Boord, Stellenbosch, 7613 Telephone: +27-21-880 0774 Mobile: +27-83-299 8523 Fax: +27-21-880 1721 E-mail: jbloom@mpbs.co.za

EDUCATION AND QUALIFICATIONS

1985: Matriculation at Paarl Boys' High School, Paarl

1989: BComm, Stellenbosch University

1990: HonsBComm (*cum laude*), Stellenbosch University

1992: MComm (*cum laude*), Stellenbosch University

2001: PhD (Corporate Finance), Stellenbosch University

EMPLOYMENT AND ACADEMIC EXPERIENCE

1 January 2008 to 31 July 2013: Part-time Professor of Corporate Finance, specialising in Real Estate Investment and Financing, Stellenbosch University.

1 July 2001 to 31 December 2007: Professor of Corporate Financial Management, specialising in Real Estate Investment and Financing, Stellenbosch University, with a special interest in business development.

2003 to April 2019: Director of Blue Cube Systems (Pty) Ltd and Blue Cube Intellectual Property Company (Pty) Ltd, private sector companies in the ICT industry.

1995 to present: Managing Member of Multi-Purpose Business Solutions, a niche business advisory and economic development consulting firm with a specific focus on the public and government sector.

1 July 2000 to 30 June 2001: Executive Manager of Chartered Alliance (Pty) Ltd, with assigned responsibility for the Business Services Unit within the Lateral Corporate Finance division of Chartered Alliance.

1 July 1999 to 30 June 2000: Executive Director of Crusader Systems (Pty) Ltd, charged with establishing a presence for the Business Solutions Group in the financial services industry.

1 January 1991 to 30 June 1999: Lecturer in the Department of Business Management, Stellenbosch University.

BUSINESS AND ADVISORY EXPERTISE

- Public transport (IPTN) business development and implementation
- Project Management
- Public-Private-Partnership facilitation and procurement
- Commercialisation Initiatives
- Real Estate Development Services
- Financial Appraisals and Feasibility Studies
- Social and Economic Impact Assessments
- Customer Surveys
- Local Economic Development Planning with project development focus
- Member of the Technical Assistance Unit (TAU) of the National Treasury as a professional service provider (Number - 1295 TAU)
- Member of the Public Private Partnership (PPP) Unit of the National Treasury as a professional service provider (Number - 1137 PPP UNIT)

ACHIEVEMENTS

- Y-rating from the National Research Foundation (NRF), which recognises the research and development potential of young researchers (2003).
- Member of the National Research Foundation (NRF) assessment panel for Masters and PhD prestige scholarships.
- Rector's award for Excellence in Research (2003), Stellenbosch University.

SELECTION OF PROJECT INVOLVEMENTS RELATED TO SOCIO-ECONOMIC IMPACT ANALYSES

- Socio-Economic Impact Assessment for the Lucullus Gardens mixed-use development, Joostenberg (Northern District of the CMA) for Joostenberg Developments (Pty) Ltd.
- Socio-Economic Impact Assessment for the Darwin Road housing development, Joostenbergvlakte, for Lukhozi Consulting Engineers.
- Socio-Economic Impact Assessment for the Longlands Manor development in Vlottenburg, Stellenbosch for Legacy Environmental Consulting.
- Socio-Economic Impact Assessment for the proposed expansion of the Afro Fishing facility in the Port of Mossel Bay for Afro Fishing (Pty) Ltd.
- Economic impact assessment and financial modelling for the development of Waterfront in the Port of Mossel Bay for Transnet National Ports Authority (TNPA)
- Socio-Economic Impact Assessment for Substantive Amendment Application for the Levendal Development in Southern Paarl for Val de Vie Investments (Pty) Ltd.
- Socio-Economic Impact Assessment for the River Farm development in Paarl for Val de Vie Developments (Pty) Ltd.
- Socio-Economic Impact Statement for the proposed Paarl Valleij Estate in Northern Paarl for Paarl Valleij Developments (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed Gourits Abalone Farm, in association with PHS Consulting.
- Socio-economic Impact Assessment for the proposed Vlottenburg Village development on Vredenheim Farm, Stellenbosch, in association with Withers Environmental Consultants.
- Financial Economic analysis and preparation of an Investment Decision-making Platform as an input for the George Settlement Restructuring Strategy. RoyalHaskoning DHV commissioned the assignment.

- Economic Impact assessment of the construction phase for the redevelopment of the Somerset Precinct in the Cape Town area for Department of Public Works, Western Cape in association with Rode and Associates.
- Socio-economic impact assessment for the development of two mariculture sites off the coast of the Eastern Cape for the Department of Environmental Affairs and Development Planning in association with Cape Environmental Practitioners, George.
- Economic Impact Assessment and Social Impact Assessment for the Parklands development in Saldanha Bay on the West Coast for Parklands Township Developers (Pty) Ltd.
- Socio-Economic Impact Assessment for development on a portion of the farm Constantia Uitsig and expansion of the tourism and hospitality facilities on the Farm.
- Socio-Economic Impact Assessment for the development of a residential estate in Melkbosstrand, Cape Town, for Nuplan Africa.
- Economic Impact Assessment and Social Impact Assessment with a social development focus for the Bella Riva development in the Durbanville region of the Cape Town Metropolitan Area of the Western Cape.
- Socio-Economic Impact Assessment for the development of two Wind Energy Facilities (Goereesoe and Kluitjieskraal) near Swellendam for Inca Energy (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed development of the Clover Wind and Solar Energy facility near Darling, Swartland Municipal area.
- Socio-Economic Impact Assessment for the proposed development of the Storm Photovoltaic Plant, Saldanha Bay, for Midnight Storm Investments 184 (Pty) Ltd.
- Socio-Economic Impact Assessment for the proposed development of Organic Recycling Processing Facility on Portion 2 of the Farm Olyphantsfontein No. 935, Malmesbury, for Soil and More Reliance.
- Socio-Economic Impact Assessment for the proposed development of the Dysselsdorp RE-Power PV Plant, near Oudtshoorn, Western Cape, for Dysselsdorp RE-Power (Pty) Ltd.
- Socio-Economic Baseline Assessment for the proposed Schaap Kraal Philippi Horticultural Area (PHA), Cape Town, for MSP Developments (Pty) Ltd.
- Socio-Economic Impact Assessment for the development of the Boy's High Sports Facility in Paarl for the Paarl Boy's High School.
- Social Impact Assessment with a social development focus for the Bosbokkamp Residential development in Stilbaai, Western Cape for Asla Devco (Pty) Ltd.
- Economic Impact Assessment and Social Impact Assessment for an upmarket residential estate in Paarl for Rhebokskloof Properties (Pty) Ltd.
- Socio-Economic Assessment for the proposed development of a sports facility for the Paarl Boys' High School. The School commissioned the assignment.
- Socio-economic Impact Assessment for the proposed Hoek van de Berg Marine and Coastal Reserve, Overstrand, for Saddle Path Properties 79 (Pty) Ltd.
- Socio-Economic Impact Assessment for the establishment of a Regional landfill site in the Worcester area, Western Cape Province, for Jan Palm Consulting Engineers.
- Socio-Economic Impact Assessment for a mixed-use development on the Vredenheim Farm in Stellenbosch for Withers Environmental Consultants (ongoing).
- Socio-Economic Impact Assessment for the establishment of an Organic Recycling Facility on Farm Corona No. 480, Paarl, Western Cape, for Resource Management Services (ongoing).
- Socio-Economic Impact Assessment for the establishment of the Frakendale Industrial Park north of Cape Town for Kohler Bricks (Pty) Ltd.
- Socio-Economic Impact Assessment for the development of a mixed-use development around the Brandwag Dam in Worcester, Western Cape for Tresso Trading 915 (Pty) Ltd (ongoing).
- Economic impact assessment for the development of a Sun International Resort on Sentosa Island, Singapore. The assignment was commissioned jointly by International Real Estate Appraisals and Sun International South Africa.
- Economic impact assessment for the development of a themed attraction in the Ezulwini Valley, Swaziland, for KPMG (S.A).
- Socio-economic impact analysis of hotel developments on the local and regional communities in the Helderberg Basin, Western Cape, for Quaypower Properties Plc, United Kingdom.

- Socio-economic impact assessment for the development of an Africa Theme Park and Resort in Gauteng for Stewart Scott International in association with KPMG (S.A.).
- Economic impact assessment for the development of the Salama Waterfront in Dar es Salaam, Tanzania, for Atos-KPMG and International Real Estate Appraisals.
- Economic Impact Assessment and Social Impact Assessment for the establishment of Waverenskroon Country Estate in Tulbagh for L'eritage Nouveau Development Company (Pty) Ltd.
- Economic Impact Assessment and Social Impact Assessment for the establishment of Dalskroon Retirement Village in Tulbagh for Midnight Masquerade 267 (Pty) Ltd.
- Economic Impact Assessment for the establishment of residential development at Doringbaai for Doringbaai Hoogtes Eiendomsbelegging (Edms) Bpk.
- Economic Impact Statement for the establishment of an Apartment Complex at Hawston near Hermanus in the Overstrand region of the Western Cape for Portland Eiendoms Ontwikkeling (Edms) Bpk.
- Economic Impact Assessment and Social Impact Assessment for the establishment of the Salmonsvlei-Wes Residential estate in Paarl for Keynote Trading and Investments 50 (Pty) Ltd.
- Economic Impact Assessment and Social Impact Assessment for the development of the proposed Middelberg Eco- and Country Estate in Stanford, Overstrand for the Wright Approach Consultancy of Hermanus.
- Economic Impact Assessment and Social Impact Assessment for the development of the Compagnes Drift Residential Estate in Botrivier, Theewaterskloof, for the Wright Approach Consultancy.
- Economic Impact Assessment and Social Impact Assessment for the development of a hotel and apartment complex at Gansbaai (Danger Point) in the Overstrand region of the Western Cape for Great White Limited, a UK-based development firm.
- Economic Impact Assessment and Social Impact Assessment for the multi-million Rand Destiny Africa development in George, Southern Cape, for Kuriakos Design & Management Consultancy.
- Economic Impact Assessment and Social Impact Assessment for the Groenfontein mixed-use Development in Klapmuts, Stellenbosch, for Frantius Property Investments (Pty) Ltd.
- An economic impact assessment with a social development focus for a mix of components comprising agriculture estate units, a lodge with conference facility, a farm stall, wine cellar and restaurant known as the Stellenbosch Wine and Country Estate in the Stellenbosch area. Stellenbosch Wine and Country (Pty) Ltd commissioned the study.
- Economic impact assessment for a residential development, boutique lodge and retail village in the Sundays River area of the Eastern Cape for Premier Residential Development (Pty) Ltd.
- Economic impact assessment for the Statue of Freedom multi-purpose development in Nelson Mandela Bay Metropolitan Municipality for the Nelson Mandela Metropolitan Municipality in association with Atos-KPMG.
- Socio-Economic Impact Assessment for a lifestyle resort in the Somerset East area of the Eastern Cape Midlands for the Blue Crane Development Agency.
- Socio-Economic Impact Assessment for the development of a golf estate and hotel (primary application) at Stellenbosch for Paradyskloof Golf Estates (Pty) Ltd. The assignment entails the evaluation of a primary application and two alternatives, one being agriculture (vineyards and olive orchards).
- Socio-Economic Impact Assessment for the development of a golf links and residential estate at L'Agulhas for Prop Access (Pty) Ltd (a Gauteng-based empowerment group).
- Socio-Economic Impact Assessment for a commercial shopping centre development in Hout Bay, Western Cape, for the Alliance Property Group.
- Economic Impact Assessment and Social Impact Assessment with a social development focus for a Shopping centre development in the Gordon's Bay region of the Cape Town Metropolitan Area of the Western Cape.
- Socio-Economic Impact Assessment for the development of a residential development in Vleesbaai, on the Southern Cape Coast, for Amanzi Moya Developments (Pty) Ltd.

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ANNEXURE R

DEVELOPMENT MANUAL

DRAFT
08 / 2020

STELLENBOSCH

BRIDGE I BHULORHO I BRUG

DEVELOPMENT MANUAL

2020

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SECTION 1:

1.1. INTRODUCTION

This design manual manages the development of the architectural and environmental identity of the Stellenbosch Bridge Precinct. It has been prepared by the developers and their professional team and aims to establish, maintain and control the architectural character and unique architectural identity of Stellenbosch Bridge, without inhibiting the individual's creativity and style.

The elements that form the essence of the Stellenbosch Bridge architectural character and the control of these elements are explained in this document. These control elements are, amongst other things; the covering, overhangs, pitch, colour and articulation of the roofs; all exterior paint colours; the street and environmental interfaces; the appearances and proportions of the window and door openings penetrating wall surfaces and the relationships between buildings. Pictures within this document are suggestive and for clarity, to avoid misinterpretations and to ensure consistency of Architectural elements within the precinct.

By controlling these elements, the full potential of Stellenbosch Bridge will be realized, thus growing the investment that developers will make in their individual properties.

The continued updating of the Architectural Design Manual is necessary to ensure that new properties at Stellenbosch Bridge are developed to maintain the overall Stellenbosch Bridge aesthetic and architectural character. Any amendments within this document supersede previous issues.

NOTE: No decision or waiver which the Developers Assessment Panel or Controlling Architect may approve shall be construed as creating a precedent for future decisions. Strict adherence to the guidelines will be observed. The Developer's Assessment Panel reserves the right to strictly enforce adherence to the guidelines.

The Stellenbosch Bridge Developer's Assessment Panel and the Aesthetic Committee will ensure that the guidelines are complied with during, both design and construction phases of each building project.

Stellenbosch Bridge is aiming for a 5* Greenstar precinct rating, and all buildings are to achieve a minimum 4* Greenstar rating as per the Green Building Council of South Africa (GBCSA) requirements. All buildings in the Stellenbosch Bridge Development need to conform to the Green Star Guidelines. Refer to the Green Building Council of South Africa (GBCSA) Green Star Guidelines in Annexure H. For further information refer to the Green Building Council of South Africa (GBCSA) website: www.gbcsa.org.za.

1.2. CONTROL

The control is through the Stellenbosch Bridge Developer's Assessment Panel and its appointed consultants. The control will be effected by: applying the general restrictions; following a mechanism for plan approvals; applying a code of conduct and rules for construction activities and monitoring construction work on site.

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Square One Landscape Architects
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1.3 THE PURPOSE OF THE DEVELOPMENT MANUAL

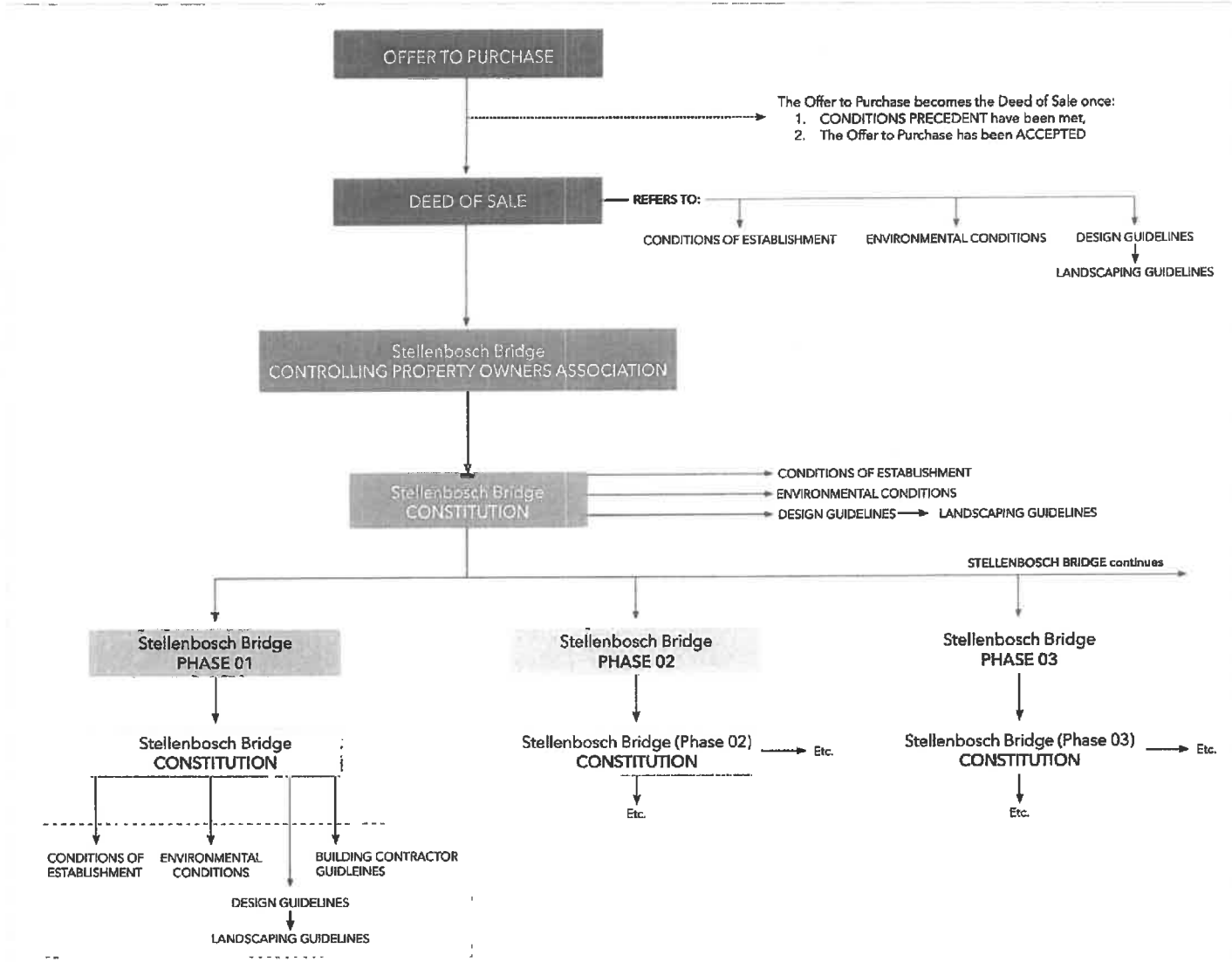


Figure 1. Order of information and hierarchy of Associations

1.4 THE STRUCTURE OF THE DEVELOPMENT MANUAL

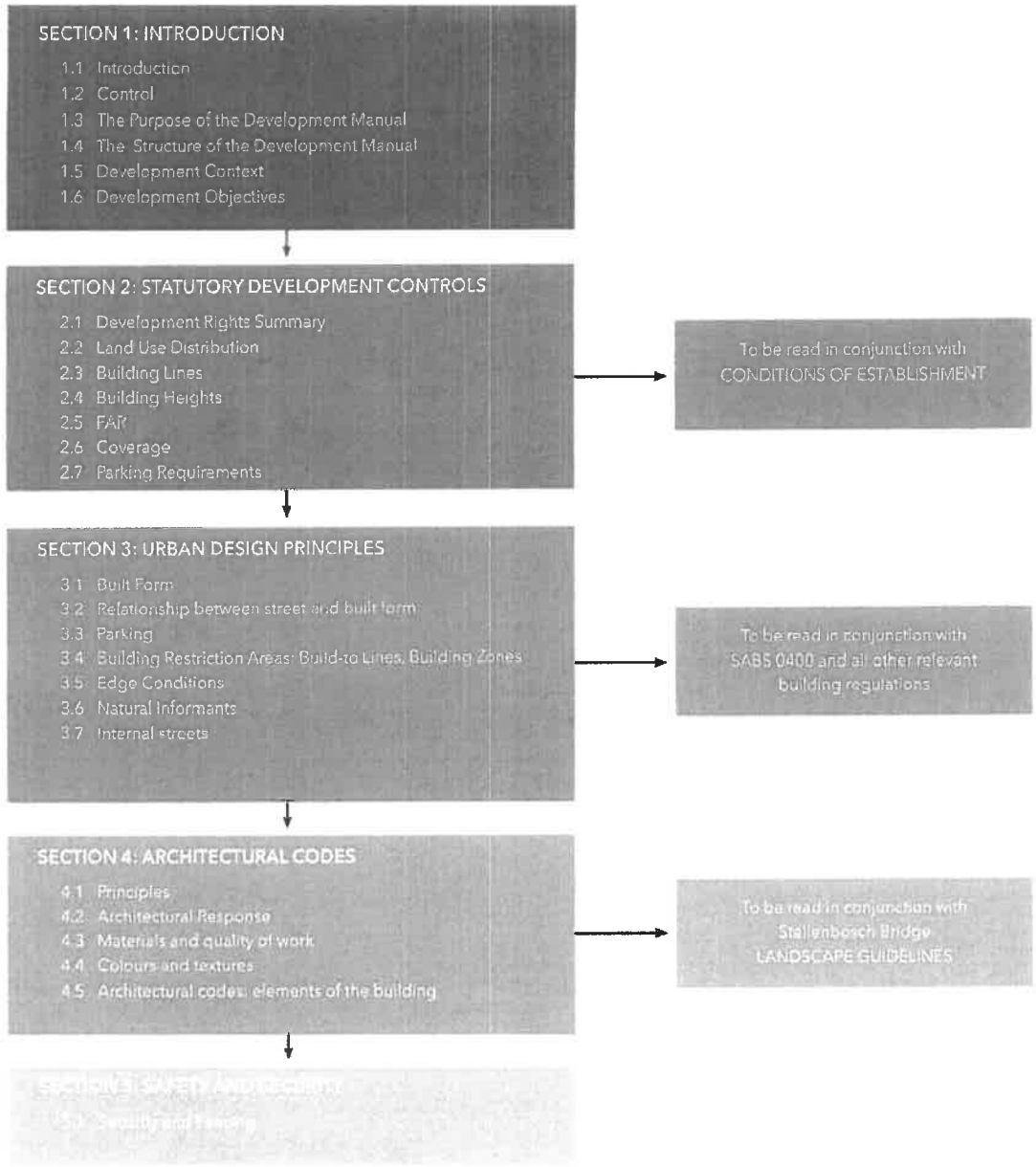


Figure 2. Diagram showing structure of Design Guidelines Development Manual

1.5 DEVELOPMENT CONTEXT

The new Stellenbosch Bridge Development is situated within the Stellenbosch region in the Western Cape Province of South Africa.

The Western Cape Province is South Africa's most popular tourist destination. The area has been named by CNN in 2018 as the world's most beautiful city and is home to the world's longest wine route (Route 62). The region has 13 International Air Connections and the 2nd largest economy in South Africa. The region also has 2 World Heritage sites including Robben Island & Cape Floral Region.

The Stellenbosch Bridge development is located adjacent to the existing Klapmuts settlement.

Klapmuts is currently defined as an important municipal node and is primed to play a much larger role in the region. One of the key characteristics of Klapmuts, is its regional locality and function.

In the future, Stellenbosch Bridge and Klapmuts can develop into a vibrant regional node that forms part of a regional development zone along the N1 freeway.

It is therefore important to acknowledge that Klapmuts cannot be viewed and assessed as part of the Stellenbosch region only. Its location and relationship to two major nodes (Cape Town and Paarl) requires a much wider view of the role it can fulfill in Stellenbosch and the wider region. Klapmuts is also identified as a future growth point in terms of the draft Greater Cape Metro Regional Spatial Implementation Framework (GCMRSIF).

The possibility to grow into a vibrant regional node is premised on the following:

- Stellenbosch Bridge abuts the N1 freeway and has good regional accessibility to the Cape Town metropolitan node and two regional nodes i.e. it is 65 km from the Cape Town CBD, 8,5km from Paarl and 19 km from Stellenbosch;
- The existence of transport infrastructure i.e. the N1 freeway, provincial arterials and rail;
- Employment proximity;
- Developable land;
- An existing community and
- Gateway to the Stellenbosch and Franschhoek Winelands.

Finally, Klapmuts as a regional node, must be developed and managed in a manner that spans the existing municipal boundaries of Stellenbosch and Drakenstein.

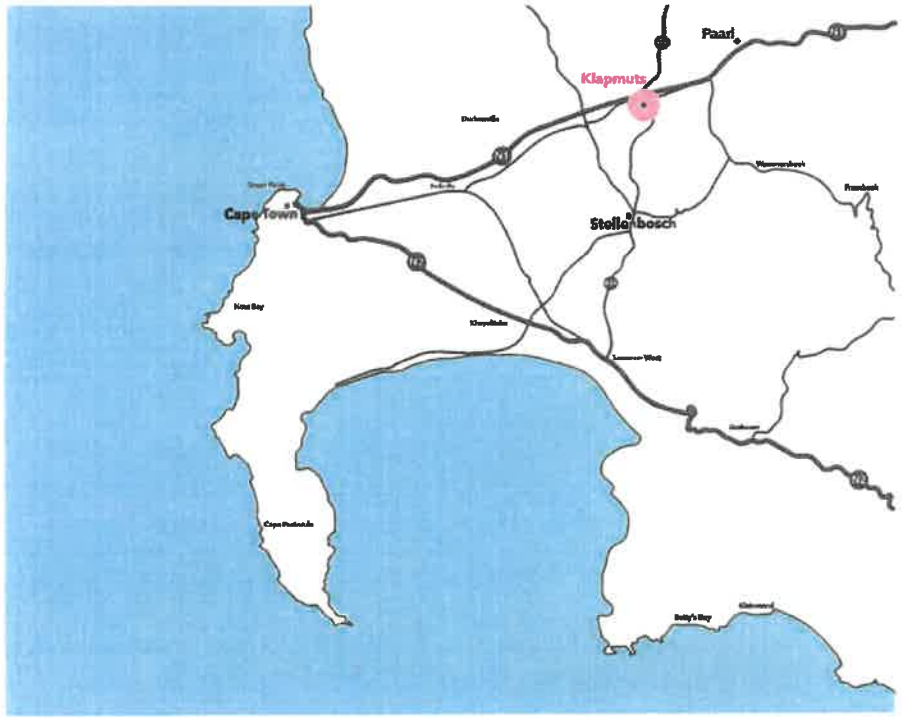


Figure 3. Regional Context

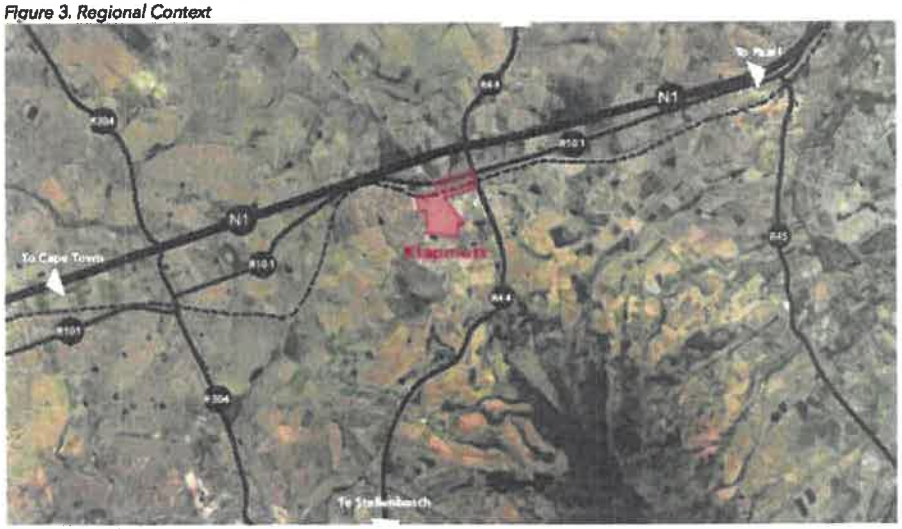


Figure 4. Local Context

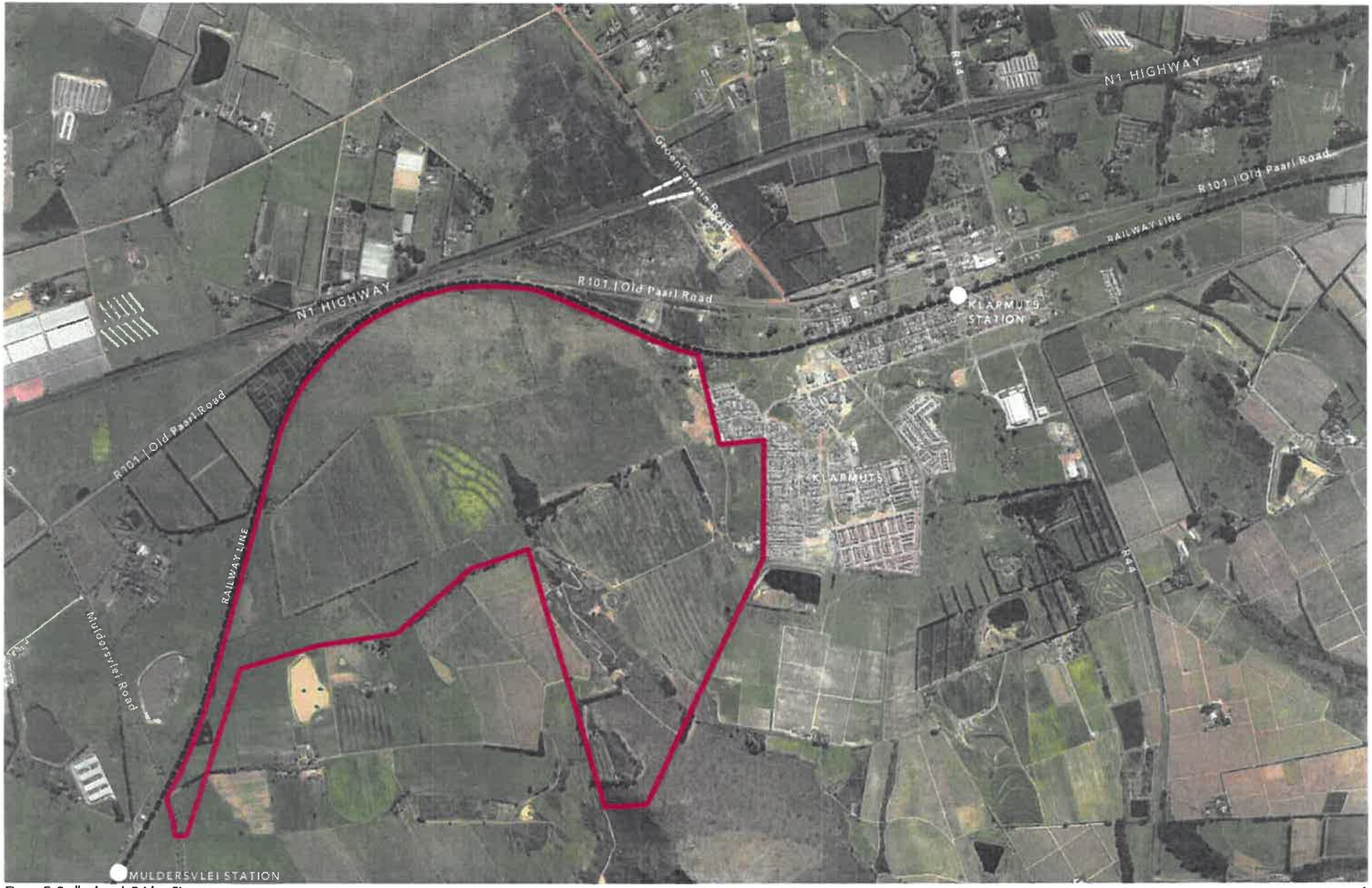
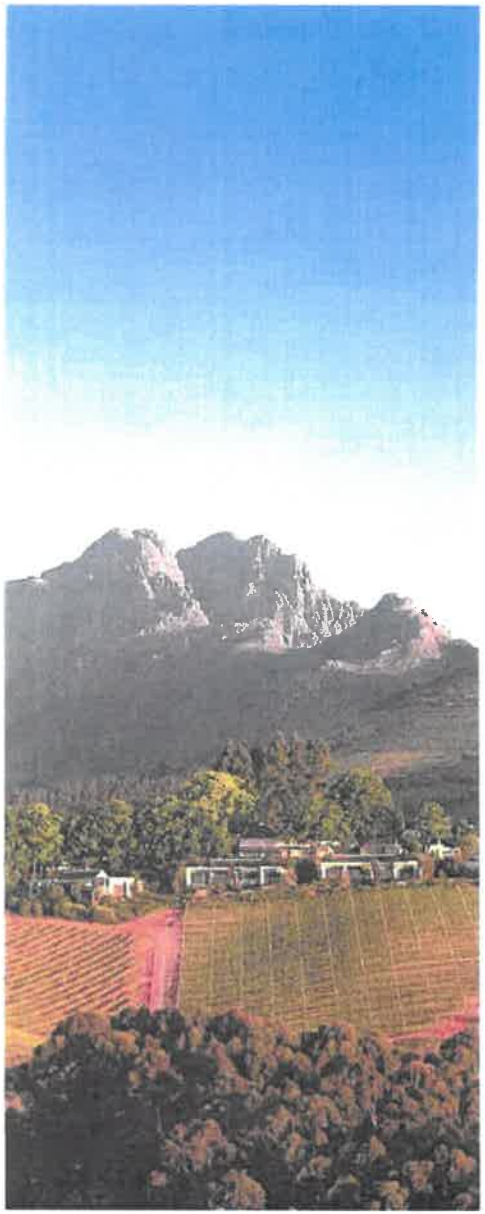


Figure 5. Stellenbosch Bridge Site



1.6 DEVELOPMENT OBJECTIVES

The Urban Design Concept for the New Stellenbosch Bridge Smart City Development is based on traditional urban design principles which provides living, working and recreational spaces for a diverse community of people in combination with creating a catalytic environment that provides opportunities for technological and social enhancements which define a smart city.

The Urban Design Vision is based on the following urban design principles:

- Daily needs within walking distance (mixed use)
- Interconnected system of streets
- A central focus: main streets and square
- Perimeter buildings orientated to the public realm
- Clear distinction between private and public space
- Supportive of public transport
- Sharing of infrastructure over a 24 hour period

In addition to the principles listed above, the Innovation Hub is envisaged as an integrated mixed use precinct that is concerned with place making, urban fit and proper spatial integration. Whilst it is a private development it contains the critical elements necessary to contribute significantly to the transformation of Klapmuts, to a spatial continuum designed to be experienced and enjoyed at pedestrian scale across boundaries.

This aim becomes possible because of the critical mass of built form, mix of uses and the relation of mass to a designed external and internal open space system. A place where many different building types, allowing for a variety of experiences and functions such as retail, commerce, education, residential, entertainment, etc are all able to exist side by side within an overall unified whole.

The individual buildings will have strong features, differ in detail, but will be part of the "same family". A North/ South pedestrian street is proposed, linking two main squares acting as a spine, around which all the parts of the development are collected and grouped. The vision proposed is a primarily safe pedestrian environment, in which open walls, streets, squares, plaza's, parks, and sports fields have been articulated as positive spaces, accommodating a wide variety of experiences and functions.

Parking will be accommodated on streets and within courtyards, semi-basements & basements concealed within the development. The vision is underpinned by environmental strategies. From inception the intention with Stellenbosch Bridge is to include all of the best materials and technology required for it to achieve a GBCSA rating. Landscaping and a green environment are integral to the architecture.

Vertical and horizontal planes will be planted, and planting will be integral with the planning and design of the outdoor spaces and courts, which will be wind sheltered and contain features such as arbours, structured planting, fountains, pergolas, street furniture and sculptures.

Stellenbosch Bridge is seen as a "Town within a town". It is envisaged as a 'hub' – a central transport node, including rail; vehicular and pedestrian and as such integrates seamlessly with the surrounding built fabric and its network of routes and connections.

Stellenbosch Bridge maximizes the given site conditions. Advantage has been taken of the magnificent views from the development, whilst the views towards the development have been carefully considered.

STELLENBOSCH BRIDGE | MASTERPLAN - DESIGN INFORMANTS

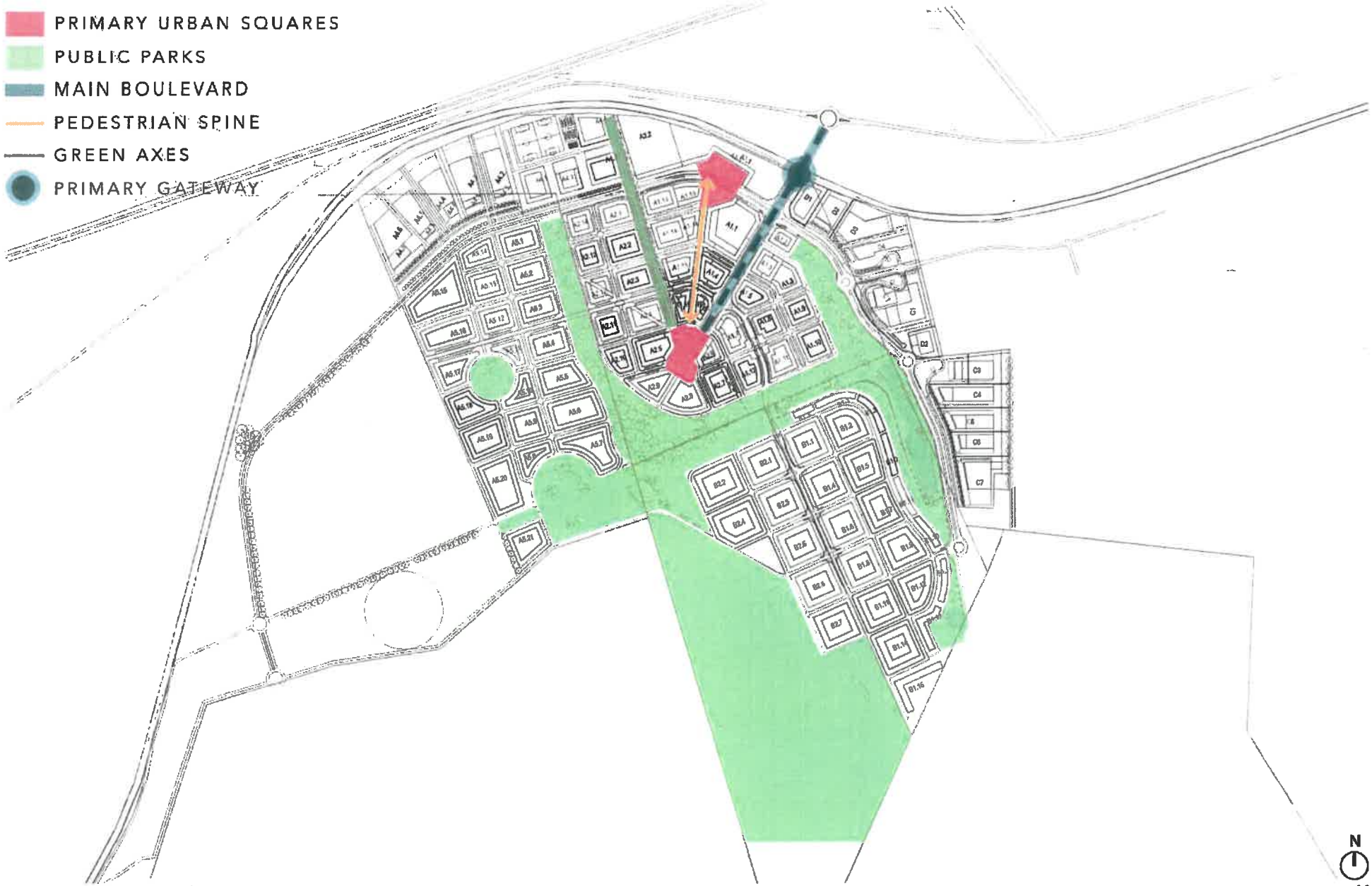


Figure 7. Masterplan -- Design Informants

Figure 8 Masterplan

Figure 9.

SECTION 2: DEVELOPMENT RIGHTS

2.1 DEVELOPMENT RIGHTS SUMMARY

Planning Rights Existing:

- 204 Ha included in the Urban Edge (Portions 1-4)
- Approved Planning Rights on 73 Ha (Portion 1) (1 577 Residential Units & 28 000m2 Bulk Commercial & Other)

Planning Rights Future:

Phase 01 - July 2020
Reallocation of existing rights on Portion 1 (73ha) – [1577 residential + 3 450m2 Bulk and 24 550m2 Bulk (Commercial, Education & Other)]

Phase 02 - November 2020
Rezoning & Subdivision of Portion 2 (22ha) [Light Industrial - 94 000m2 Bulk]

Phase 03 - May 2021
Densification on Portions 1 & 3 (73ha) – [2500 residential units & 150 000m² bulk (Mixed-use)]

Phase 04 - September 2021
Rezoning & Subdivision for remaining site area inside Urban Edge on Portion 4 (106ha) – [Bulk to be confirmed (Mixed use)]

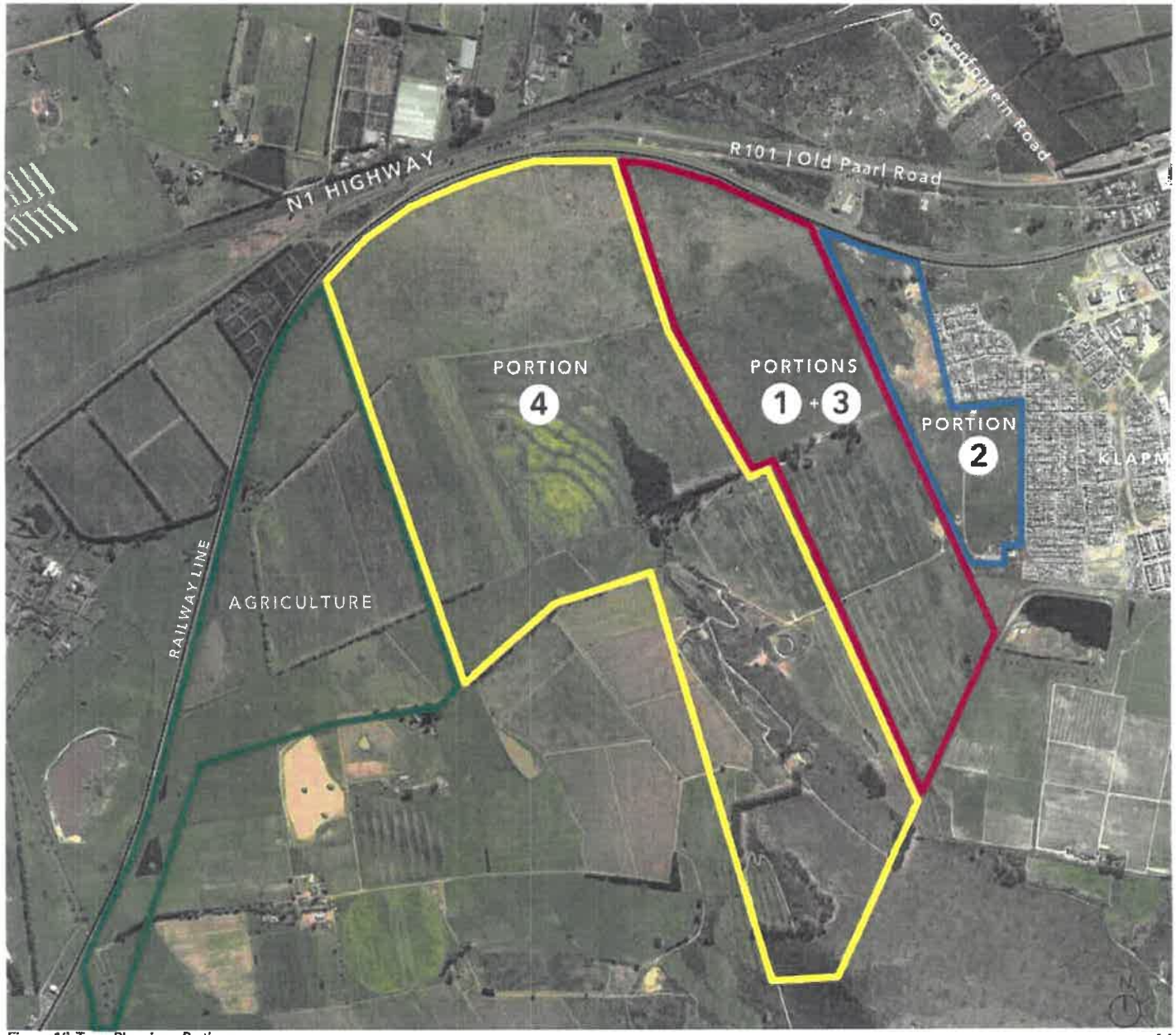


Figure 10. Town Planning - Portions

2.2 LAND USE - DISTRIBUTION

The Innovation Precinct is a mixed use precinct comprising of office,commercial, residential, retail, hotels, entertainment, educational and transport.

There is a low and high density Residential Precinct to the South and an industrial precinct to the west and north of the future Innovation Precinct.

The Education/ School Precinct is located between the transport interchange and Industrial Precinct.

The future Innovation Precinct is envisaged as a mixed use precinct.

This proposed land use mix is indicative and is subject to change based on the bulk application and basket of rights.

Figure 11. Land Use Map

2.3 BUILDING LINES

2.3.1. STREET BOUNDARY BUILDING LINES (m)

MIXED USE ZONE:

Business Premises	0m
Guest House, hostel, tourist accommodation	4,5m
All other buildings	4,5m

RESIDENTIAL ZONE:

Group housing; Retirement village:	
External	3m
Internal	0m
Flats	4,5m
All other buildings	4,5m

INDUSTRIAL ZONE:

All buildings	3m

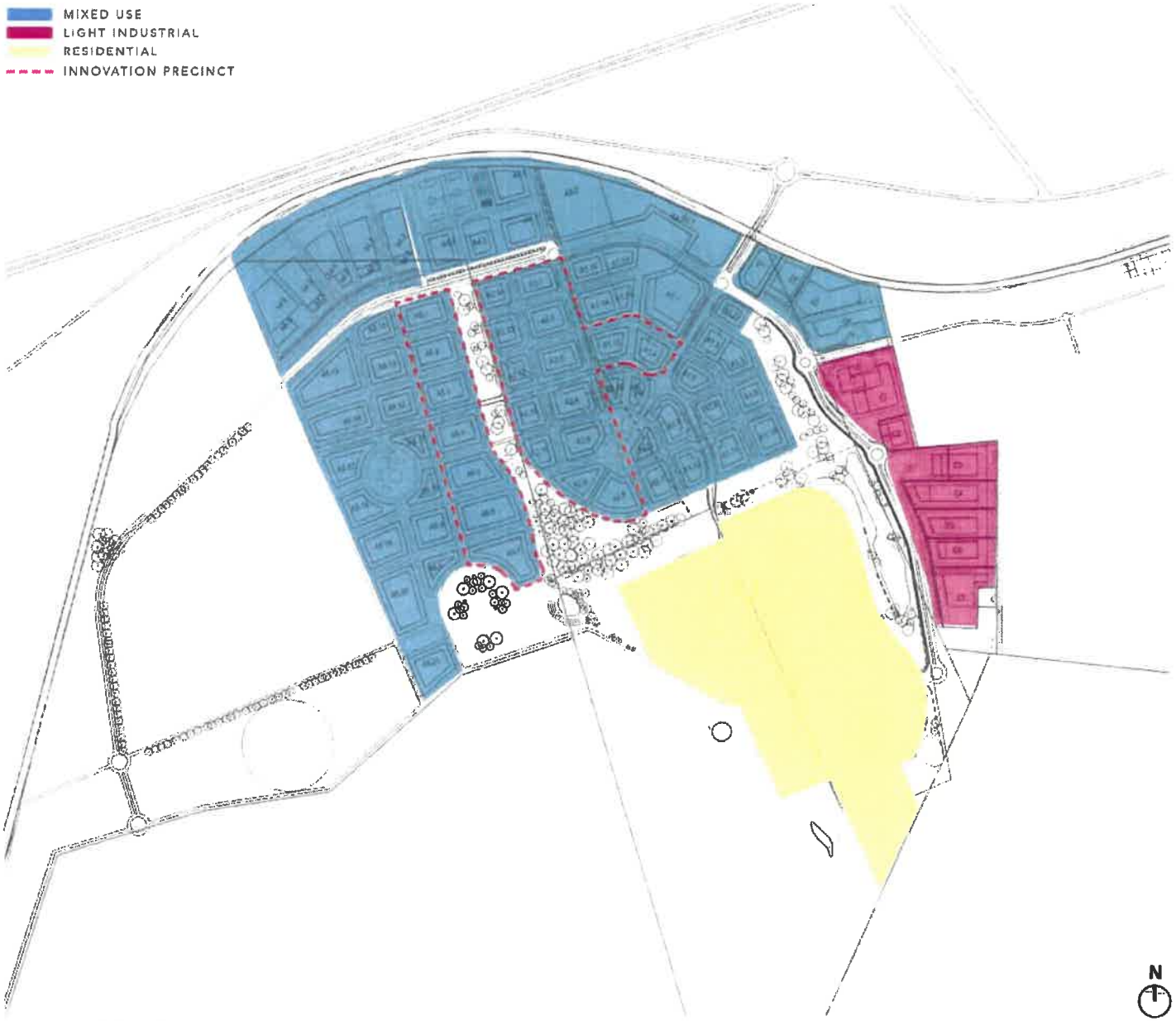


Figure 12. Town Planning Information

2.3.2. COMMON BOUNDARY BUILDING LINES (m)

MIXED USE ZONE:

Business Premises	0m
Guest House, hostel, tourist accommodation:	
Ground Floor	4,5m
First Floor	4,5m
Second Floor	6m
All other buildings	4,5m

RESIDENTIAL ZONE:

Group housing; Retirement village:	
External	3m
Internal	0m
Flats.	
Ground Floor	4,5m
First Floor	4,5m
Second Floor	6m
All other buildings:	
Ground Floor	4,5m
First Floor	4,5m
Second Floor	6m

INDUSTRIAL ZONE:

All buildings	0m
If abutting another zone	3m

Refer to the detail guidelines per land parcel for more detailed information regarding the building lines.

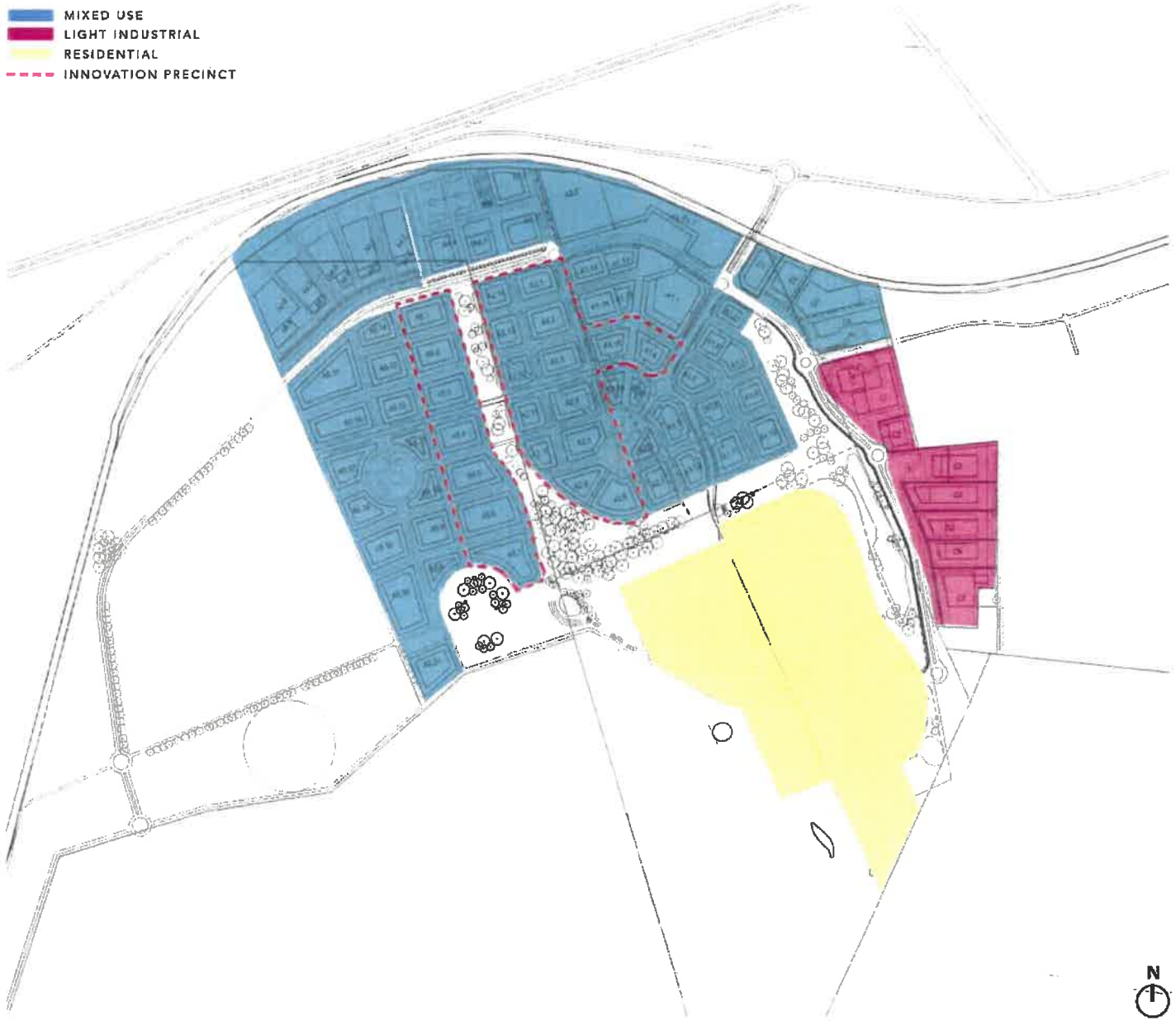


Figure 13. Town Planning Information

2.4 HEIGHT OF BUILDINGS

2.4.1.Heights of buildings are regulated by the controls assigned to each land parcel.

2.4.2 The height restrictions may be relaxed and amended at the discretion of the Local Authorities.

2.4.3 The **height of each storey** is defined as follows:

OFFICE / COMMERCIAL:
- Ground Floor - maximum 6,5m from floor to ceiling (within which a mezzanine floor can be situated, and not count towards a floor).
- Other Floors - maximum 4,5m from floor to ceiling.

RETAIL:
- Ground Floor - maximum 6,5m from floor to ceiling (within which a mezzanine floor can be situated, and not count towards a floor).
- Other Floors - maximum 4,5m from floor to ceiling.

INDUSTRIAL:
Office Component:
- Floor - maximum 6,5m from floor to ceiling (can also include a mezzanine, which does not count as a floor)
- Other Floors - maximum 4,5m from floor to ceiling

RESIDENTIAL:
- Ground Floor - maximum 3,5m from floor to ceiling
- Other Floors - maximum 3,5m from floor to ceiling.

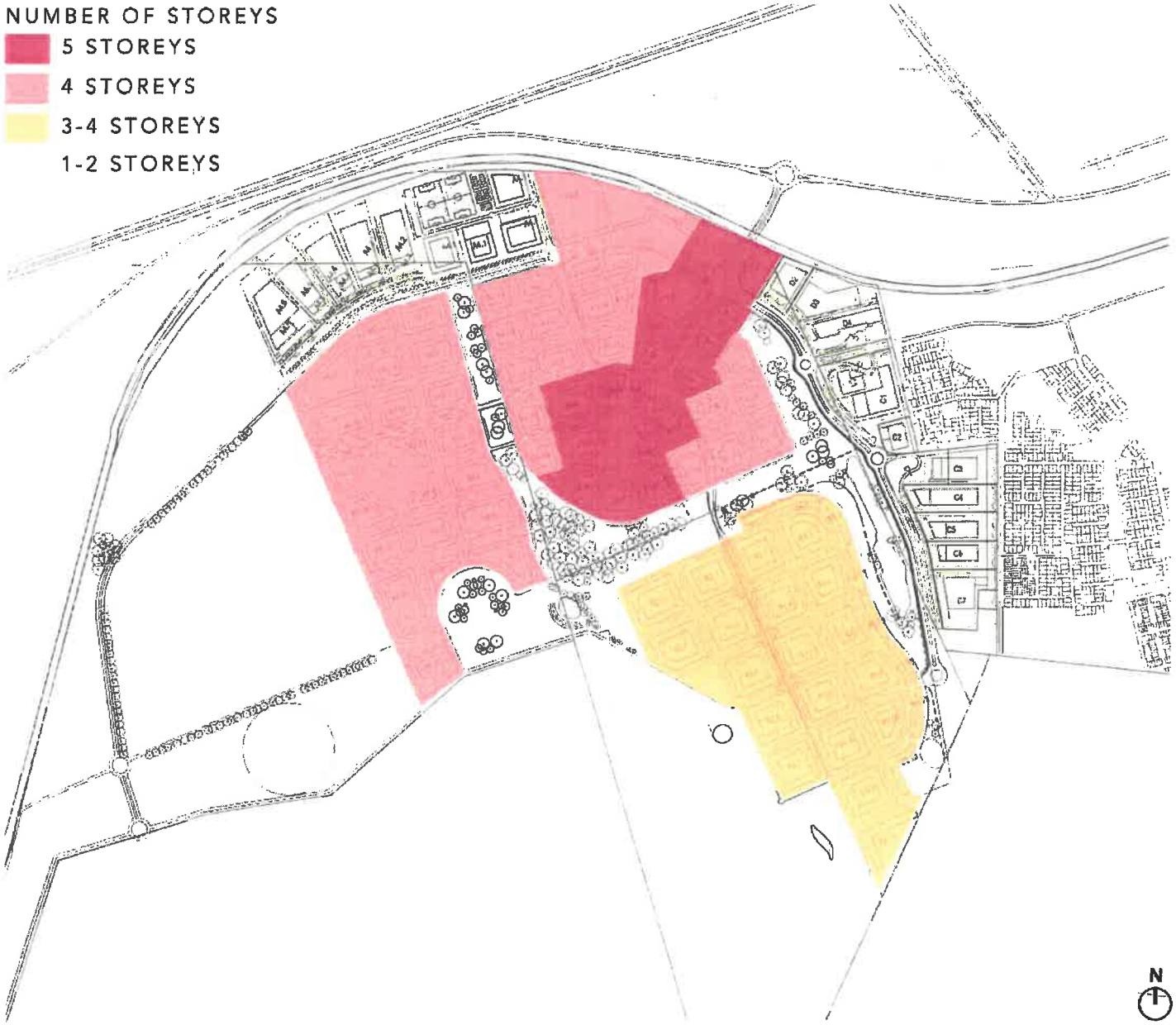


Figure 14. Height Zone Map

2.4 HEIGHT OF BUILDINGS (CONTINUED)

2.3.4. Heights as per Land Use Scheme:

MIXED USE ZONE	STOREYS
Business Premises	6
Guest House, hostel, tourist accommodation:	6
All other buildings	6

RESIDENTIAL ZONE (max height)	STOREYS
Group housing; Retirement village	2
Flats	4
All other buildings	3

INDUSTRIAL ZONE	STOREYS
All buildings	4

2.5 FLOOR AREA

RESIDENTIAL ZONE	
Group housing; Retirement village	n/a
Flats	75%
All other buildings	75%

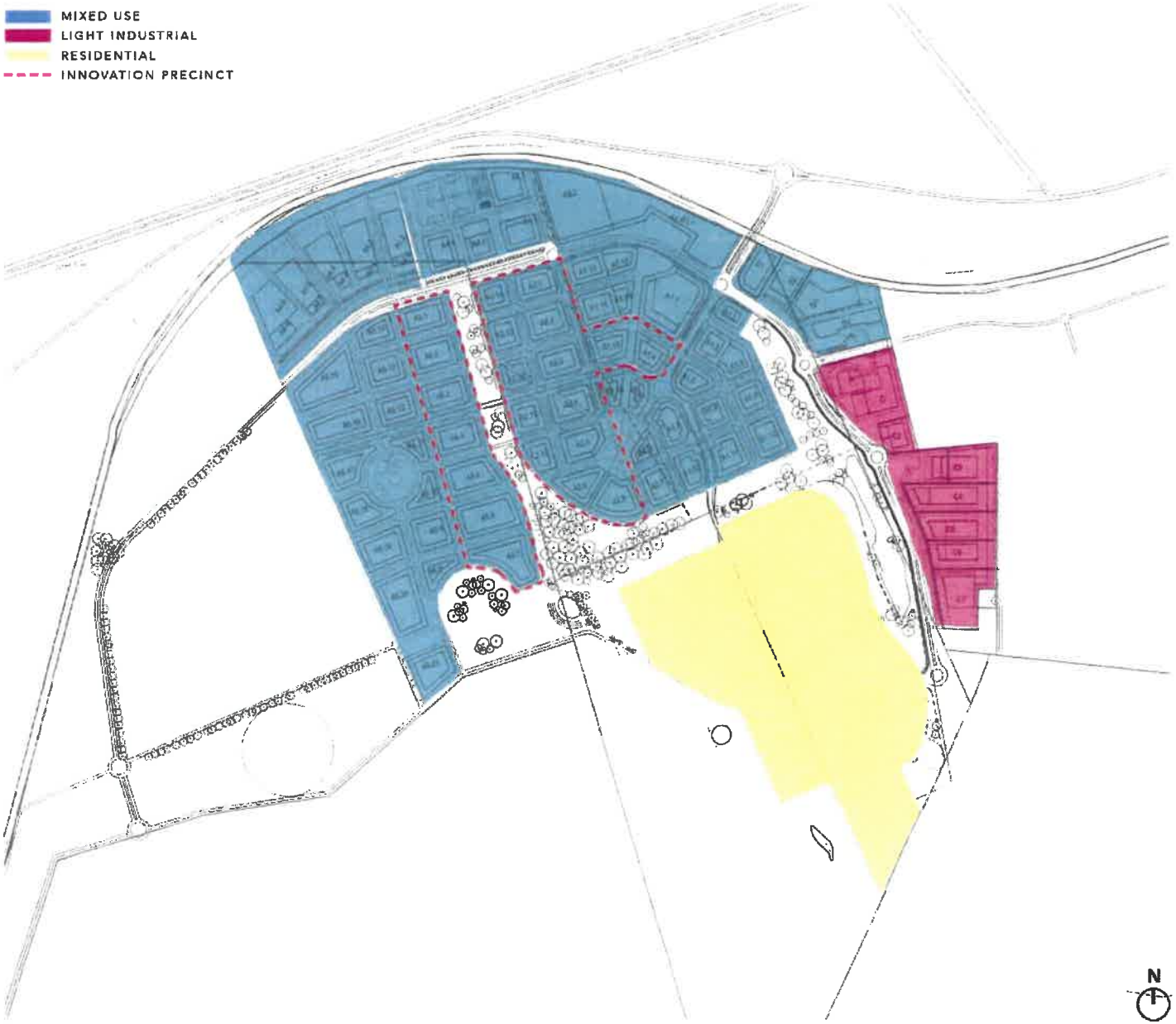


Figure 15. Town Planning Information

2.6 COVERAGE

MIXED USE ZONE:	
Business Premises	85%
Guest House, hostel, tourist accommodation:	50%
All other buildings	85%
RESIDENTIAL ZONE: (max coverage)	
Group housing; Retirement village	50%
Flats	50%
All other buildings	50%
INDUSTRIAL ZONE:	
All buildings	75%

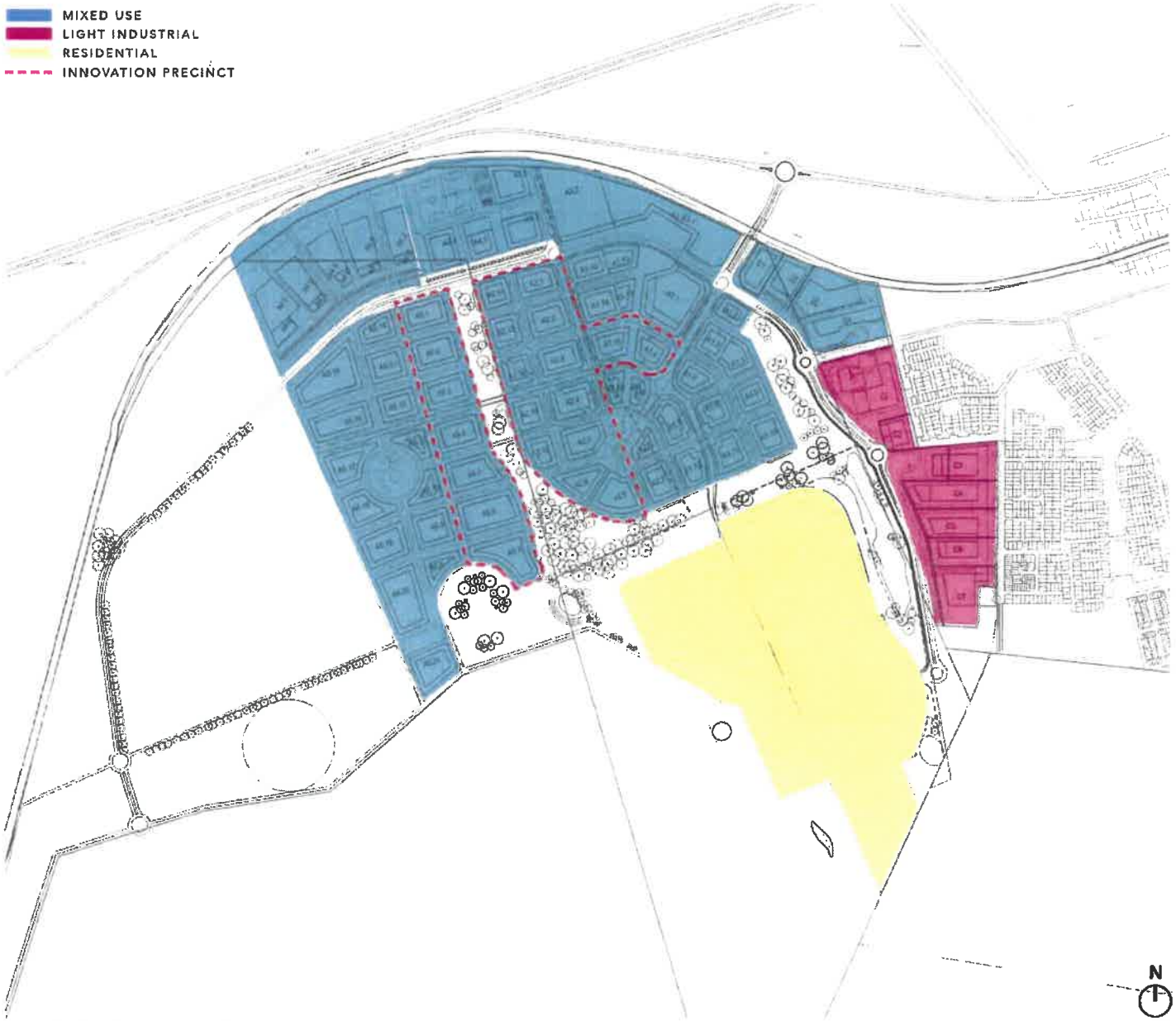


Figure 16. Town Planning Information

2.7 PARKING

TABLE A: OFF-STREET PARKING REQUIREMENTS

Land Use Category	Normal parking	Additional parking reserved for visitors
Residential		
Bed- and breakfast (additional to dwelling)	1 bay/guest bedroom	
Commune	1 bay/bedroom	
Community Residential building: orphanage and old age home	0,3 bay/bedroom	
Dwelling house in all zones except LFR:		
1 bedroom	1 bay/dwelling house	
2 or more bedrooms	2 bays/dwelling house	
Dwelling house in LFR Zone	1 bay/dwelling house	
Flats in all zones except LFR:		
1- & 2-bedroom units	1 bay/dwelling unit	0,5 bay/dwelling unit
3 bedroom units	1,25 bays/dwelling unit	0,5 bay/dwelling unit
4 or more bedroom units	1,5 bays/dwelling unit	0,5 bay/dwelling unit
Flats in LFR Zone:	1 bay/dwelling unit	0,25 bay/unit
Group house:	1 bay/group house	1 bay/unit
Guest house	1 bay/bedroom or suite	
Home lodging (additional to dwelling unit)	1 bay/boarder bedroom	
Hostel	1 bay/bedroom for private hostels; 0,6 bay per bedroom for tertiary institution; nil for schools	
Hotel	0,7 bay/bedroom or suite plus, additional parking for additional facilities accessed by non-guests at the corresponding ratio for the particular land use as set out in this table.	
Backpackers	To be determined by Council based on occupancy and location	
Second dwelling house: all zones except LFR	1 bay/second dwelling	
Second dwelling house in LFR zone	nil	
Tourist accommodation establishment	To Municipality's satisfaction - between 0,7 bays per bedroom and 1 bay per self-catering unit	
Community facilities and medical		
Medical consulting rooms	6 bays/100m² gross leasable area	
Clinics and Hospitals	1 bay/bed plus 3 bays/consulting room	
Day care centre	1 bay/classroom or office	
Extramural facility	1 bay/4 students	
Place of Education	1 bay/classroom	
Business and office		
Business premises: including liquor store, funeral parlour, adult entertainment and similar	4 bays/100m² gross leasable area	
Commercial gymnasium	6 bays/100m² gross leasable area	
Conference facility	0,25 bay/seat	
Filling Station	4 bays/100m² gross leasable area	
Motor showroom: Light Vehicles	3 bays/100m² gross leasable area	
Motor showroom: Medium and Heavy Vehicles	1 bay/100m² gross leasable area with a min of 6 bays plus 1/bay/800m² gross leasable area for heavy vehicles (min 1 bay)	
Motor vehicle fitment centre, repair centre	4 bays per service bay plus 4 bays/100m² gross leasable area: Min 8 bays	
Offices	4 bays/100m² gross leasable area	
Place of entertainment -general	4 bays/100m² gross leasable area	
Cinemas and theatres -in shopping centre	0,1 bay/seat	
-stand-alone	0,25 bay/seat	
Plant nursery	1 bay/100m² gross leasable area (total indoor and outdoor sales area)	
Restaurant	4 bays/100m² gross leasable area	
Service station	4 bays /service bay plus 2 bays/100m² gross leasable area	
Shops (including supermarkets and centres):		
up to and including 1000m²	4 bays/100m² gross leasable area	
>1000m²	6 bays/100m² gross leasable area	
Industrial		
Industry	1,5 bays/100m² gross leasable area	
Warehouse, abattoir, brickworks, builders' yard	1 bay/100m² gross leasable area	
Scrap yard	1 bay/100m² gross leasable area	
Land Use Category	**Normal parking**	**Additional parking reserved for visitors**
Tertiary educational institution		
colleges	1 bay/lecture room	0,25 bay/student
university	1 bay/lecture room	0,4 bay /student
Place of worship		
Church	0,4 bay/seat or 40 bays/100m² of seating and aisle area	
Mosque	25 bays/100m2 of net prayer area	
Place of assembly; indoor sport	0,25 bay/seat or 20 bays/100m² gross leasable area	
Outdoor sport	0,25 bay/seat, player or occupant	
Public institution (e.g. library, museum)	2 bays/100m² gross leasable area	
Welfare institution, libraries and museums	2 bays/100m² gross leasable area	

Table 1

SECTION 3: URBAN DESIGN

3.1 BUILT FORM

3.1.1. Stellenbosch Bridge (SB) is currently made up of six distinct precincts:

- **Mixed Use Precinct:** (business / residential / educational / medical / institutional / research & development / data / sport & recreation / tourism / utility service / parking / transport facilities / warehousing & distribution / manufacturing)
- **Light Industrial:** data centers/ commercial/ manufacturing/ warehousing & distribution/ utility service / parking.
- **High Density Residential** (residential /institutional/business/sport & recreation/tourism)
- **Medium Density Residential** (residential /institutional/business/ sport & recreation/tourism)
- **Educational / School Precinct**
- **Future Mixed Precinct Extension** (business / residential / educational / medical / institutional / research & development / data / sport & recreation / tourism / utility service / parking / transport facilities / warehousing & distribution / manufacturing)

3.1.2. The aim is to achieve a built environment and architecture that has commercial value and is adaptable to accommodate tenants' requirements and associated technological changes.

This Section deals with the Mixed Use Precinct.

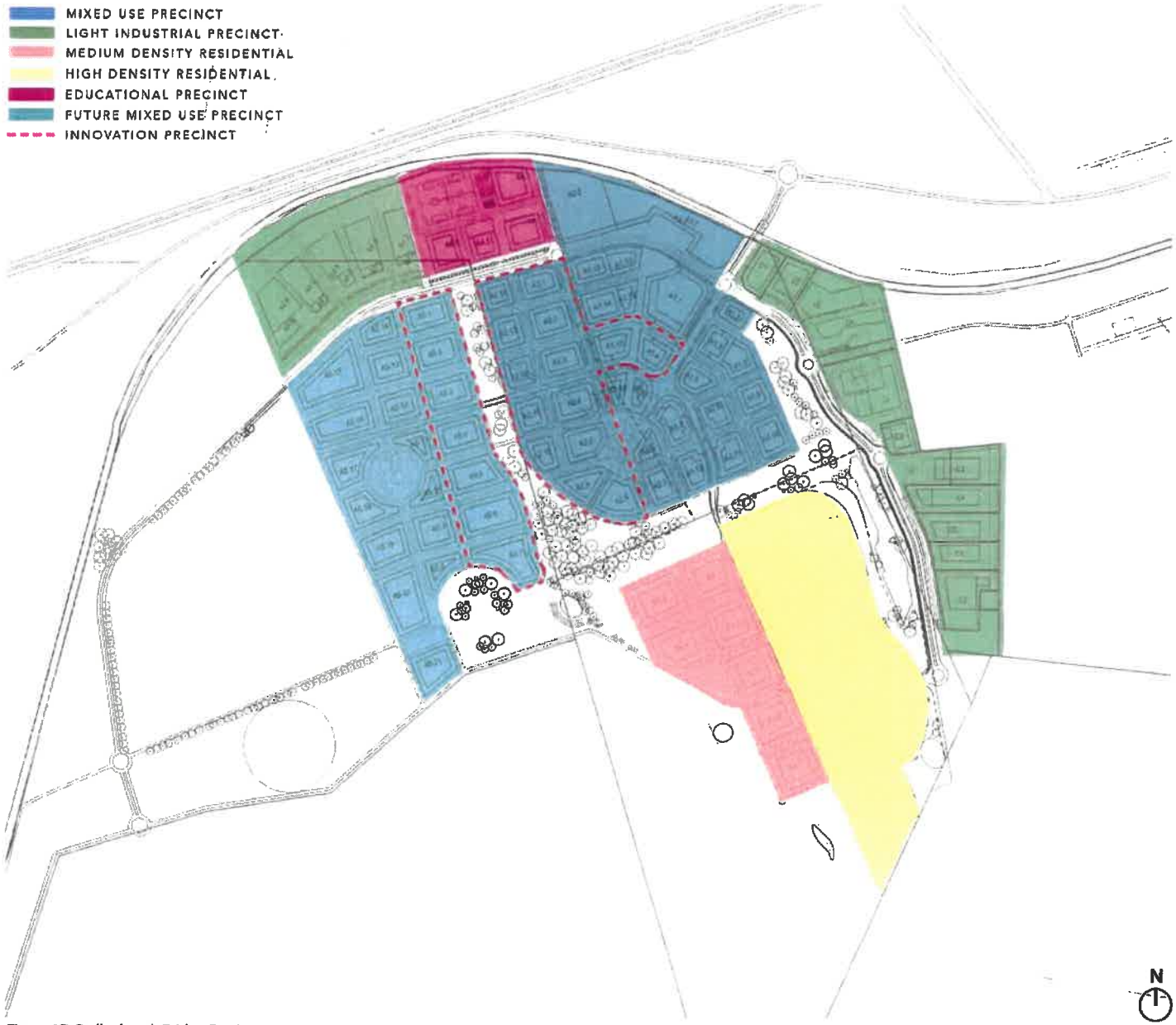


Figure 17. Stellenbosch Bridge Precincts

STELLENBOSCH BRIDGE | PUBLIC SPACE HIERARCHY

Figure 18. Public Space Hierarchy

STELLENBOSCH BRIDGE | MOVEMENT ROUTES

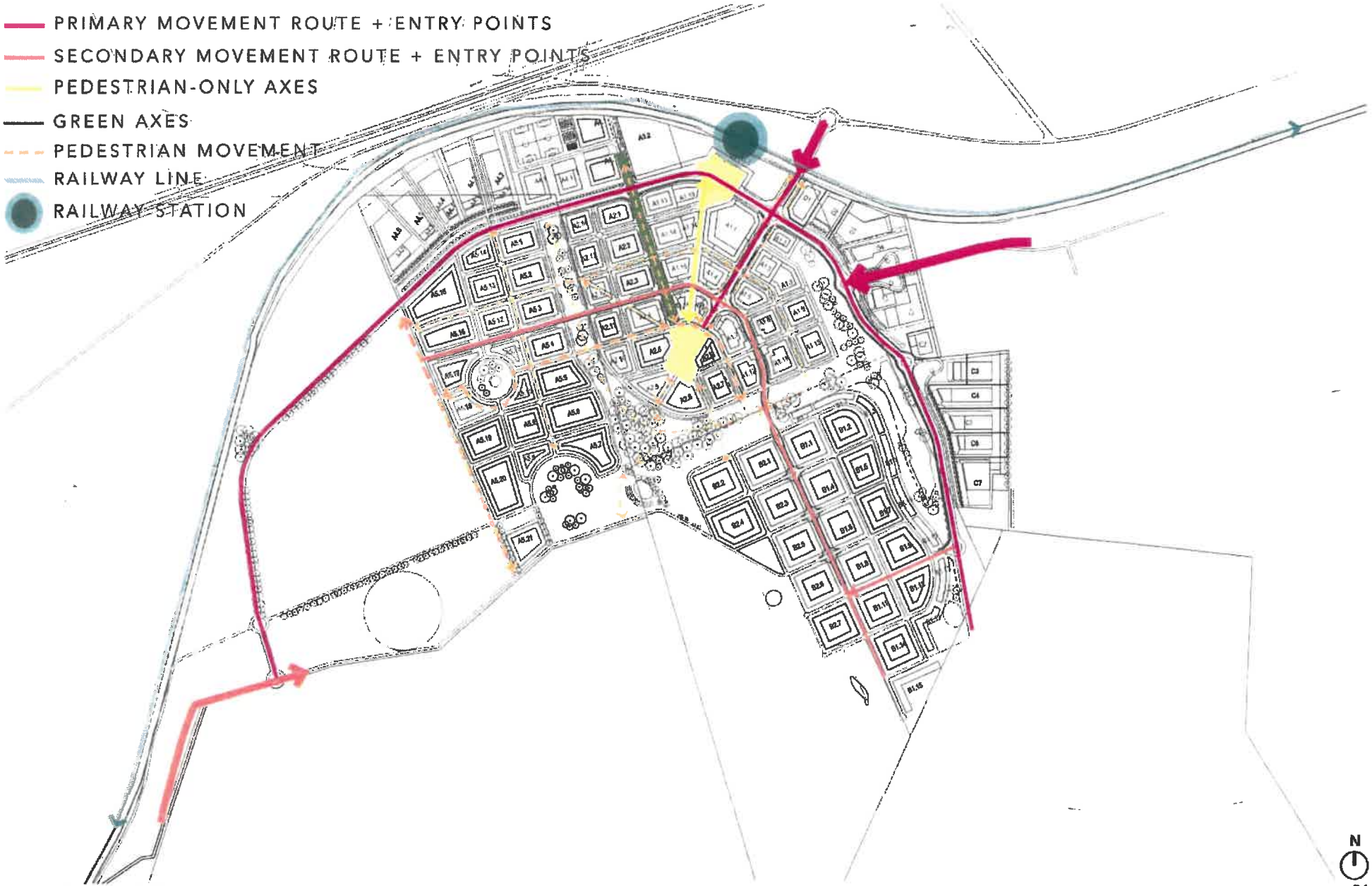


Figure 19. Axes and Legibility

STELLENBOSCH BRIDGE | VEHICULAR MOVEMENT ROUTES

PRIMARY VEHICULAR MOVEMENT

SECONDARY VEHICULAR MOVEMENT

TERTIARY VEHICULAR MOVEMENT

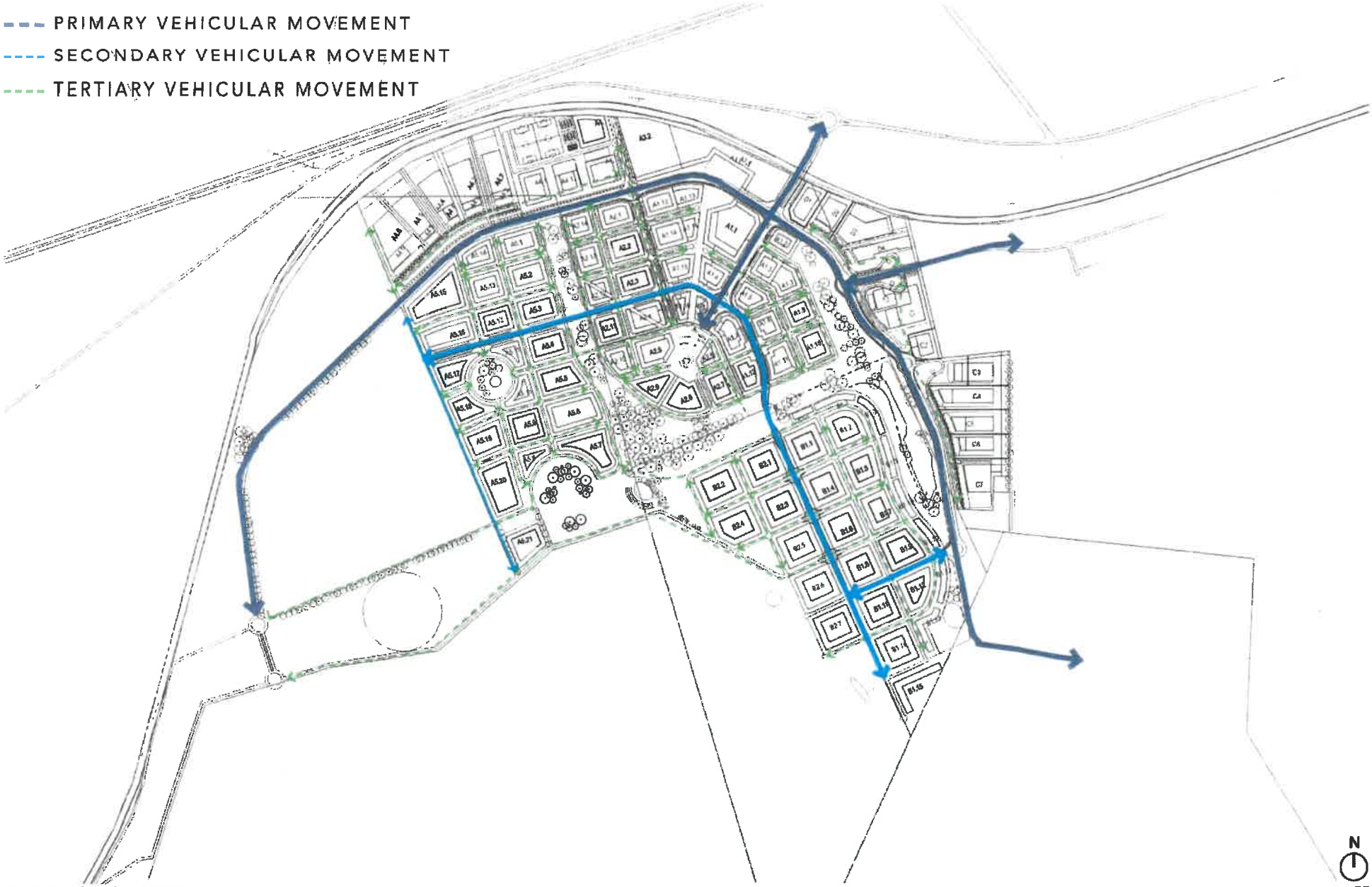


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Figure 20. Links and Connectivity

STELLENBOSCH BRIDGE | PEDESTRIAN MOVEMENT ROUTES

URBAN SQUARES
PEDESTRIAN LANES
PUBLIC PARKS
PEDESTRIAN MOVEMENT

Figure 21. Pedestrian Movement Map

STELLENBOSCH BRIDGE | NMT MOVEMENT ROUTE

NMT CYCLE ROUTE

Figure 22. NMT Map

3.2 RELATIONSHIP BETWEEN STREET AND BUILDINGS

3.2.1 ACTIVE FACADES/ANIMATED STREETSCAPES

3.2.1.1 The primary developer will establish the Street network, public environment and access roads and be responsible for the installation of infrastructure.

3.2.1.2 Buildings are to be designed to facilitate surveillance of the streets as well as take maximum advantage of exposure to them. The ground floor of the buildings in particular are to have an active interface with the street. This may be achieved by the careful consideration of position of windows, entrances and/or common areas facing the street, promoting the required surveillance of the public realm.

3.2.1.3 Blank or largely inactive façades are expressly discouraged in the mixed-use zone. Generally an active building frontage must contain:

- Frequent doors and windows, with virtually no blank façades.
- Narrow frontages giving vertical rhythm to the street scene.
- Articulation of façades, with projections such as bays, canopies and balconies.

3.2.1.4 Service functions (e.g. air con units) must be suitably screened, and preferably positioned on the roof; in the basement; or to the back of the site.

Figure 25. Blank Facades Discouraged

Figure 26. Buildings designed to facilitate surveillance of the streets and have an active interface with the street

Figure 27. Active Building Frontages containing frequent doors and windows, vertical rhythm through narrow frontages and articulation of facades with bays, balconies and canopies.

3.2.2 ACCESS

3.2.2.1 Clear distinctions must be made between building entrances for vehicles and service access; and entrances for pedestrians to improve space definition and the articulation of the built form

3.2.2.3 Clarity of pedestrian entry: All buildings should be fully accessible to the disabled. Ramped access to buildings should both comply with regulations and be an integral part of the entrance façade design. Where the slope of the land does not allow for multiple entry points at different levels, lifts should be incorporated to ensure accessibility to all floors.

Figure 28. Clarity of entrance way for pedestrian entry

Figure 30. Clarity of entrance way for vehicular entry

Figure 29. Clarity of entrance way for vehicular and pedestrian entry for a typical site

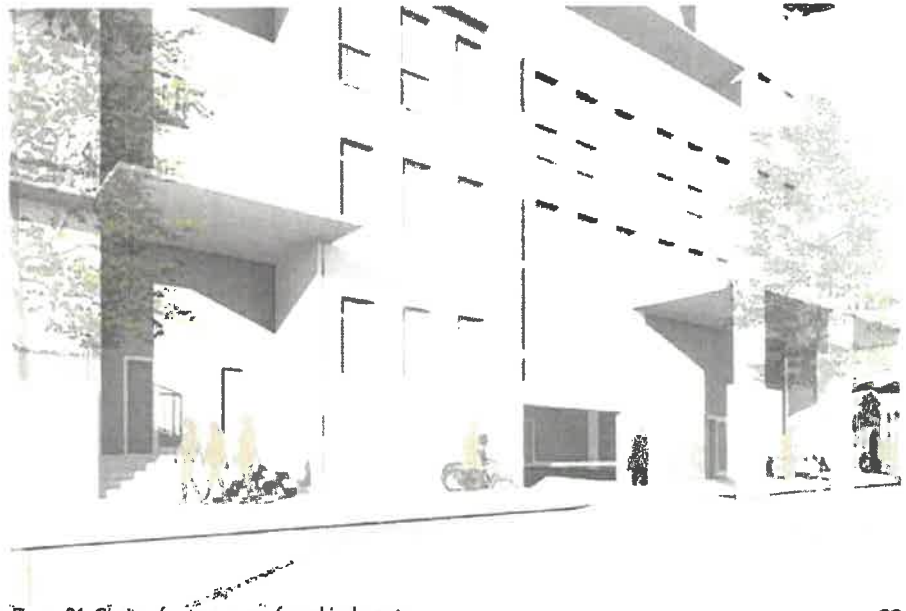


Figure 31. Clarity of entrance way for vehicular entry

3.3 PARKING

3.3.1 All the developments will be expected to include sufficient on-site parking to support the use of the building and the minimum as required by the town planning controls, summarised in Table 2

3.3.2 The parking for each site shall be provided on site, either as surface or underground parking. Aside from the parking provided on-street, the majority of surface parking is to be provided in the courtyards inside the city blocks.

3.3.3 Limited visitors parking is allowed in the on-street frontage of the property.

3.3.4 Parking basements: Where a basement parking structure projects above ground level at any point on a public façade, it should be limited to 2,5m, as illustrated in Figure 30.

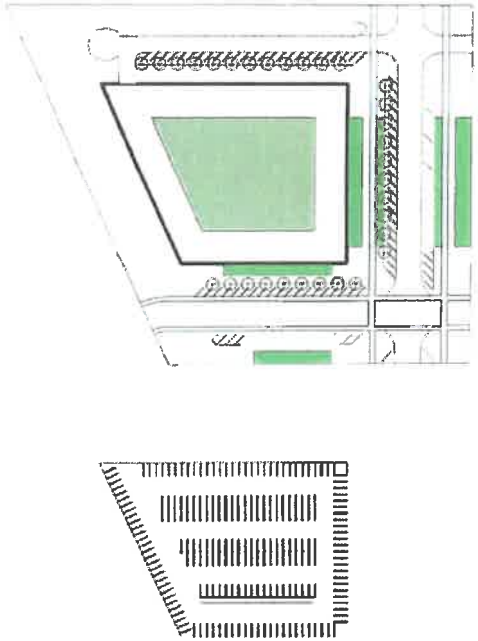


Figure 34. Plans showing basement and parking on the street front for a typical site

LAND USE	GUIDELINES SUGGESTED PROVISION
Office/ Commercial	4 BAYS / 100M² LETTABLE
Retail	6 BAYS / 100M² LETTABLE
Residential	1 BAY / STUDIO + 1 BEDROOM UNITS 1,5 BAYS / 2 BEDROOM UNITS 2 BAYS / 3 BEDROOM UNITS 0 25 BAYS / UNIT FOR VISITORS
Industrial	2 BAYS / 100M² LETTABLE

Table 2: Suggested Parking Provisions

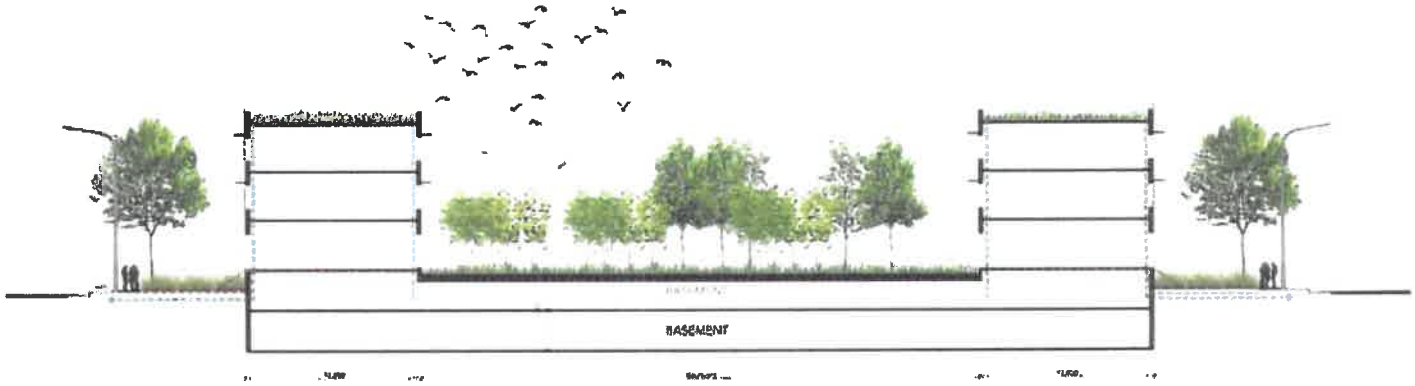


Figure 33. Diagram showing basement parking lot disengaged (max 1,5 m on street frontage) from the natural ground level, to create a raised ground floor of the building.

3.4 BUILD-TO LINES AND BUILDING ZONES

3.4.1 The intent is to achieve visual continuity of the street façades through building placement. A minimum of 70% of a building's street façade must adhere to the build-to line.

3.4.2 Setbacks and projections should form an integral part of the façade design and should not detract from the overall expression. Setbacks and projections are limited as per the building lines, building zones and height stipulations, as shown in below.

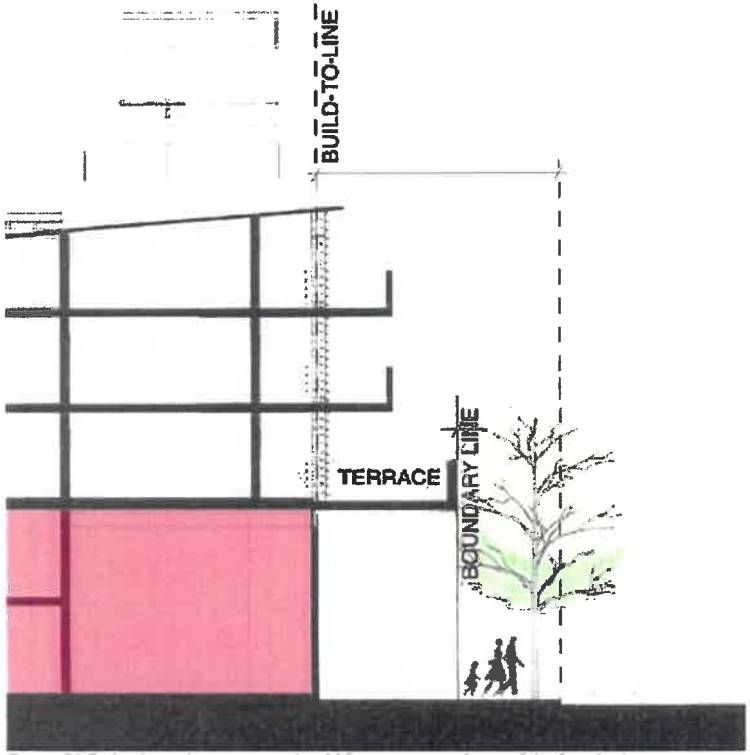


Figure 36.Setbacks and projections should form an integral part of the façade design

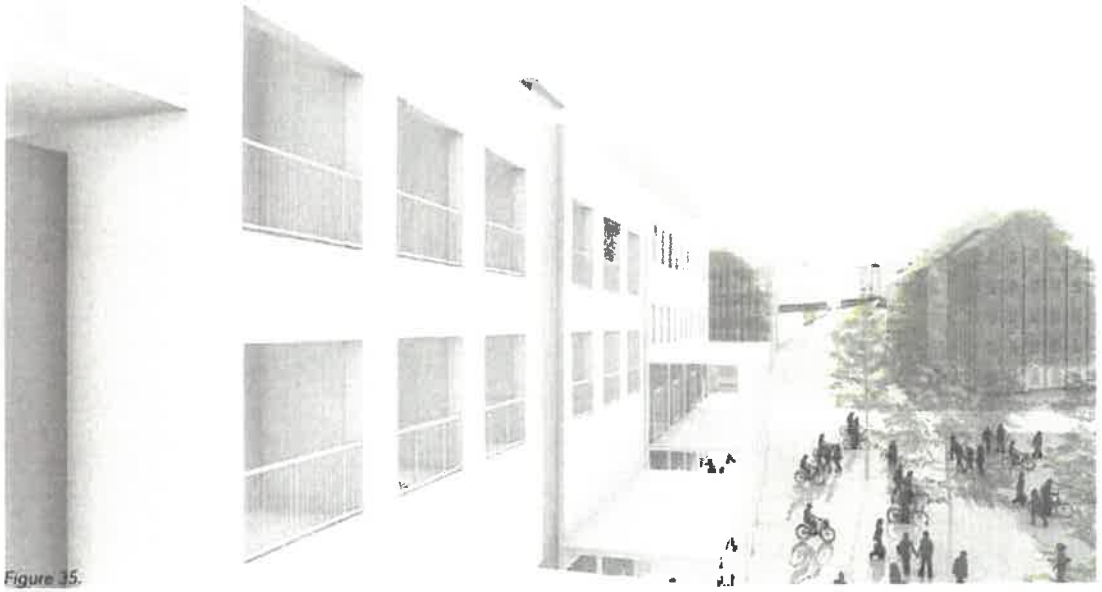


Figure 35.

Figure 37. Perspective showing the visual continuity of the street facades.

3.5 EDGE CONDITIONS

3.7.1 A series of distinct edge conditions have been established to define the public-private interface in specific areas. The physical design of the edges and the activities that can be accommodated along them support both the legibility and place making for the entire development.

These edges are:
- Edge 1: Interface of Industrial buildings across the Stellenbosch Bridge Boulevard.
- Edge 2: Interface of Offices/ Commercial/Residential with Stellenbosch Bridge Boulevard.
- Edge 3: Interface of Offices/ Commercial with Innovation Boulevard.
- Edge 4: Interface of Offices/ Commercial Buildings.
- Edge 5: Interface of Residential Buildings.
- Edge 6: Interface of Retail/ Commercial/Offices/Hotel/Residential with Pedestrian Retail Street
- Edge 7: Interface of Offices/ Commercial/ Residential with Green Street.
- Edge 8: Interface of Retail/ Commercial/Offices/Hotel/Residential with Innovation Square and Station Square
- Edge 9: Interface of Typical Streets.

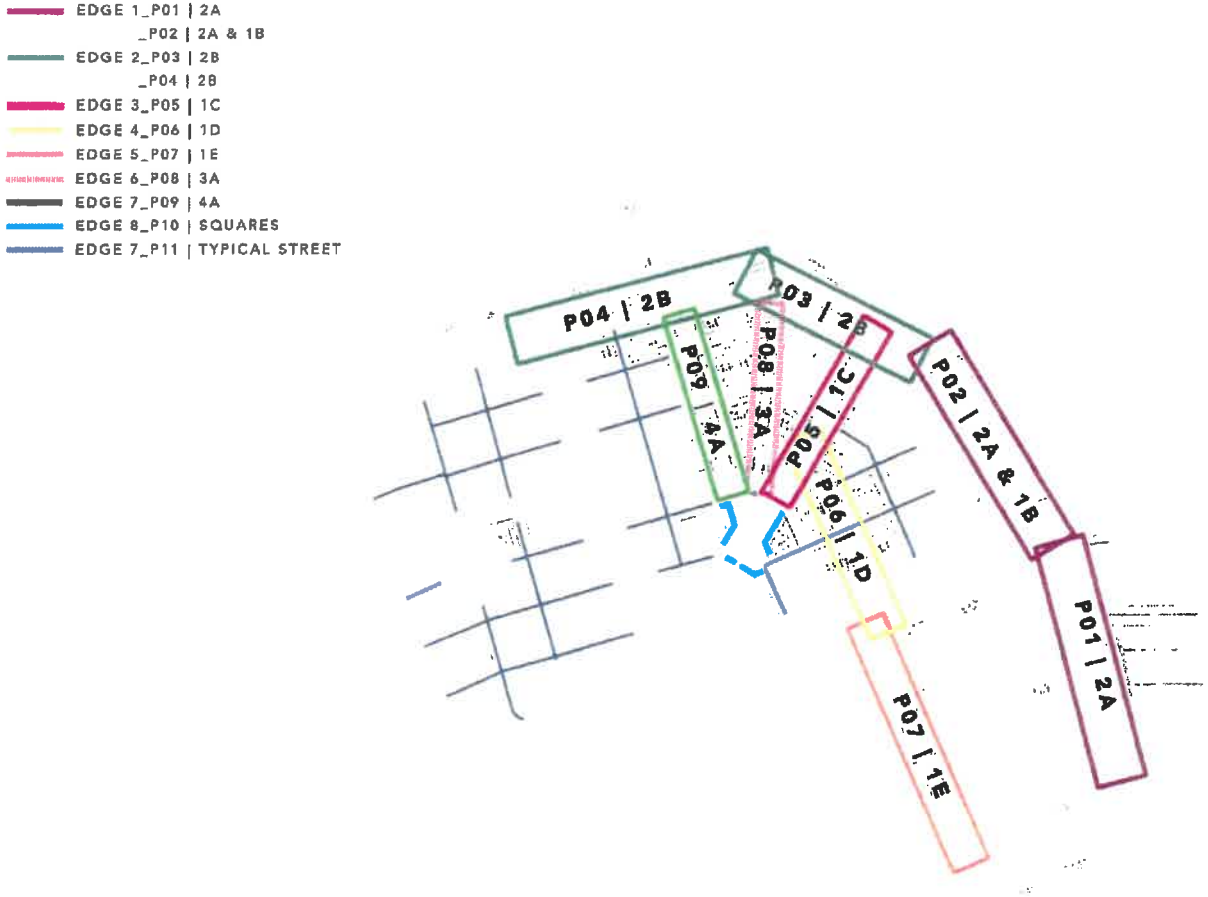


Figure 38. Edge Conditions Map

EDGE 1: P01 | 2A & P02 | 2A & 1B

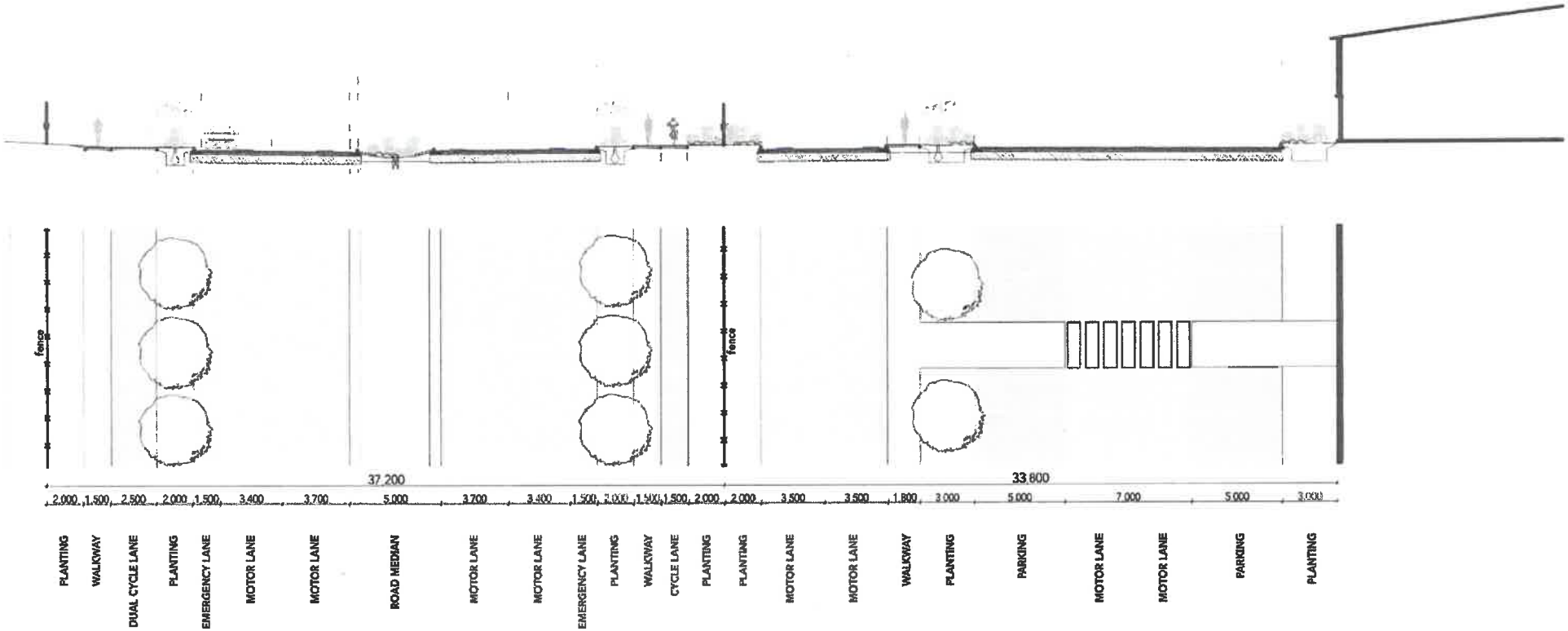
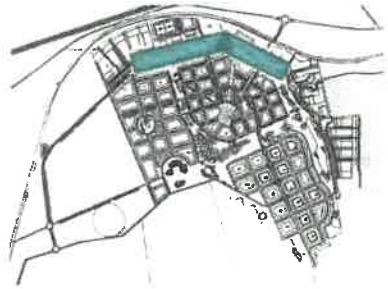


Figure 39.



EDGE 2: P03 | 2B & P04 | 2B

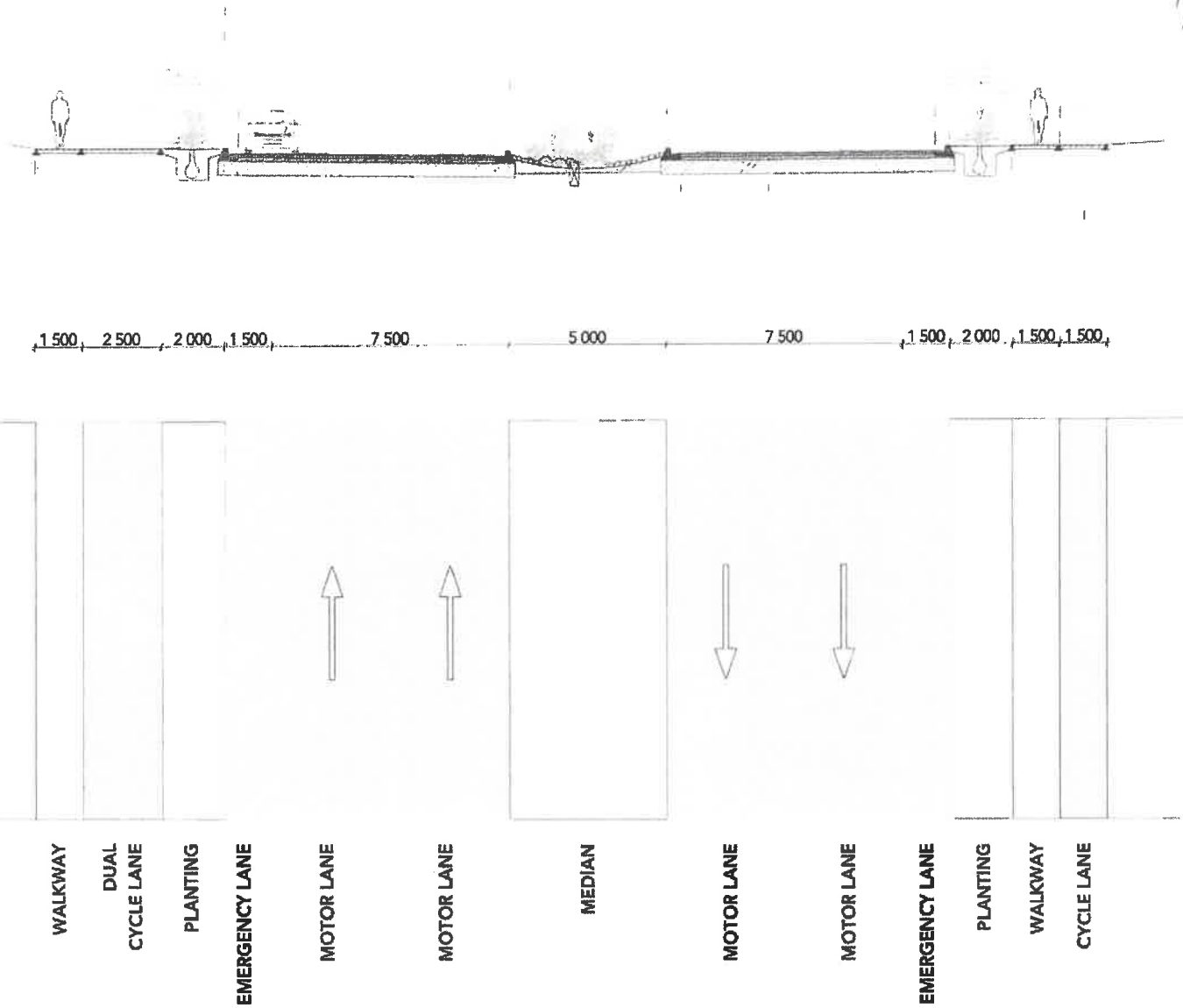


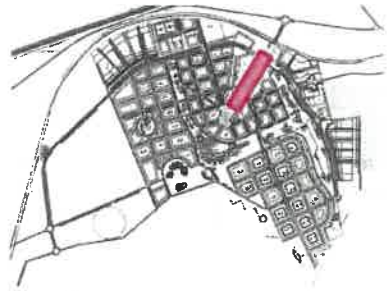
Figure 40.

EDGE 2: P03 | 2B & P04 | 2B

Figure 43.

Figure 44.

EDGE 3: P05 | 1C SECTION A



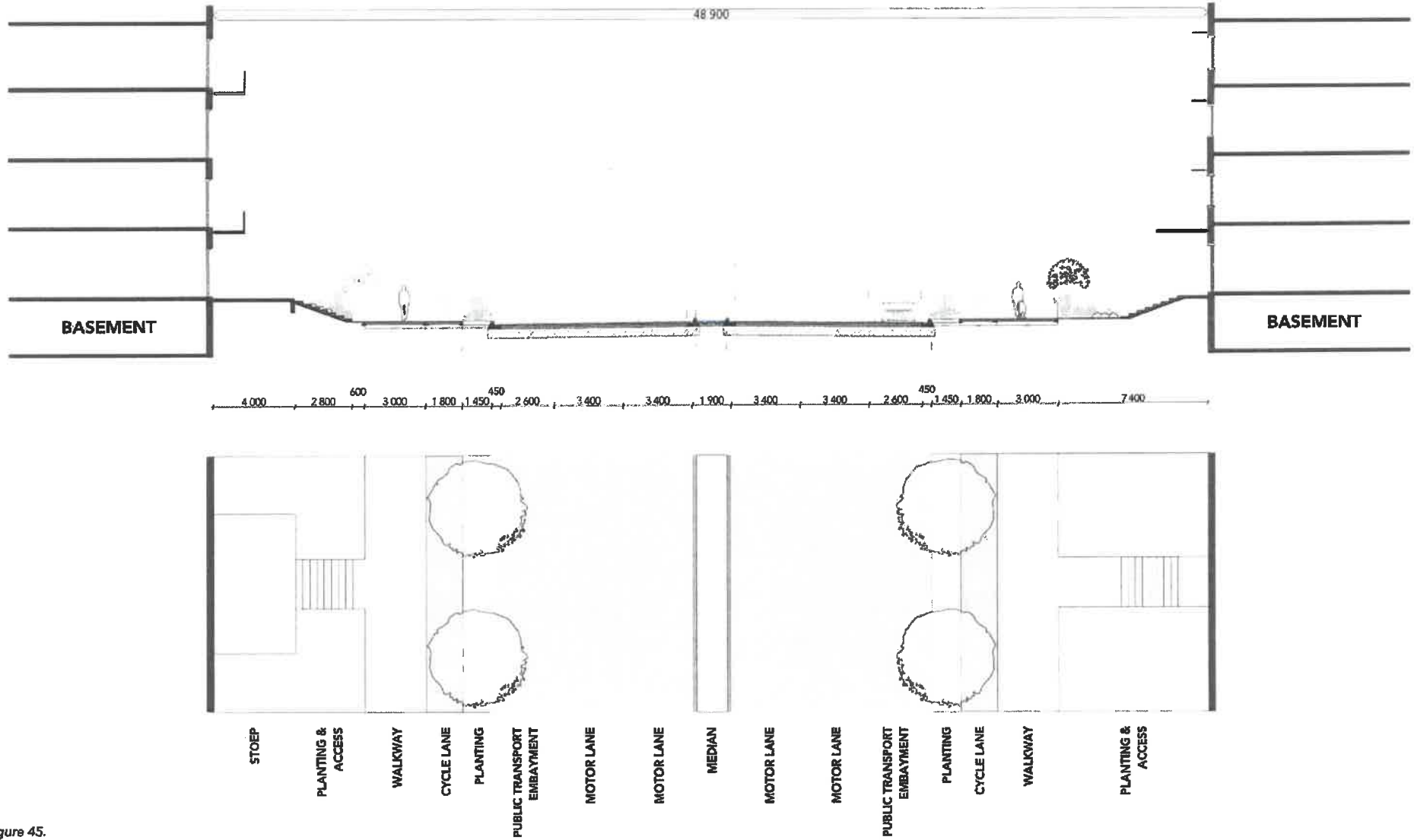
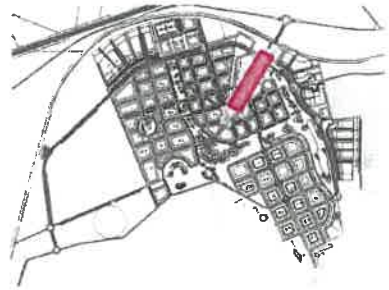


Figure 45.

EDGE 3: P05 | 1C SECTION B



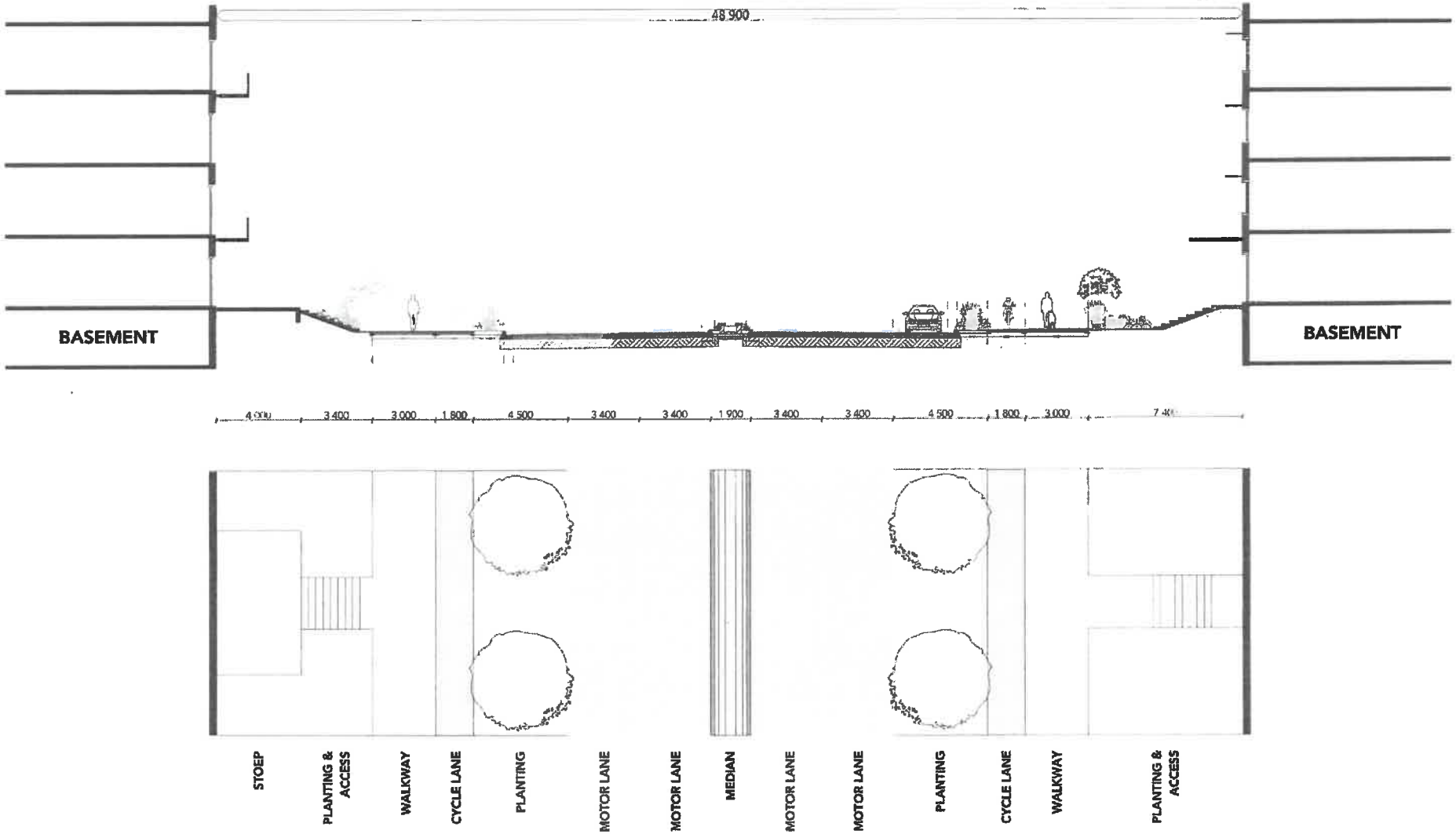
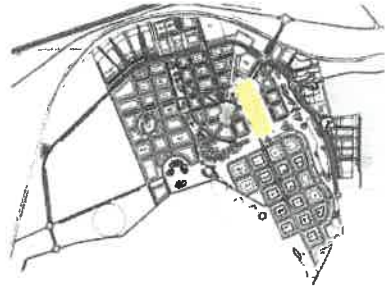


Figure 46.

EDGE 3: P05 | 1C
MAIN BOULEVARD

Figure 48.

EDGE 4: P06 | 1D SECTION A



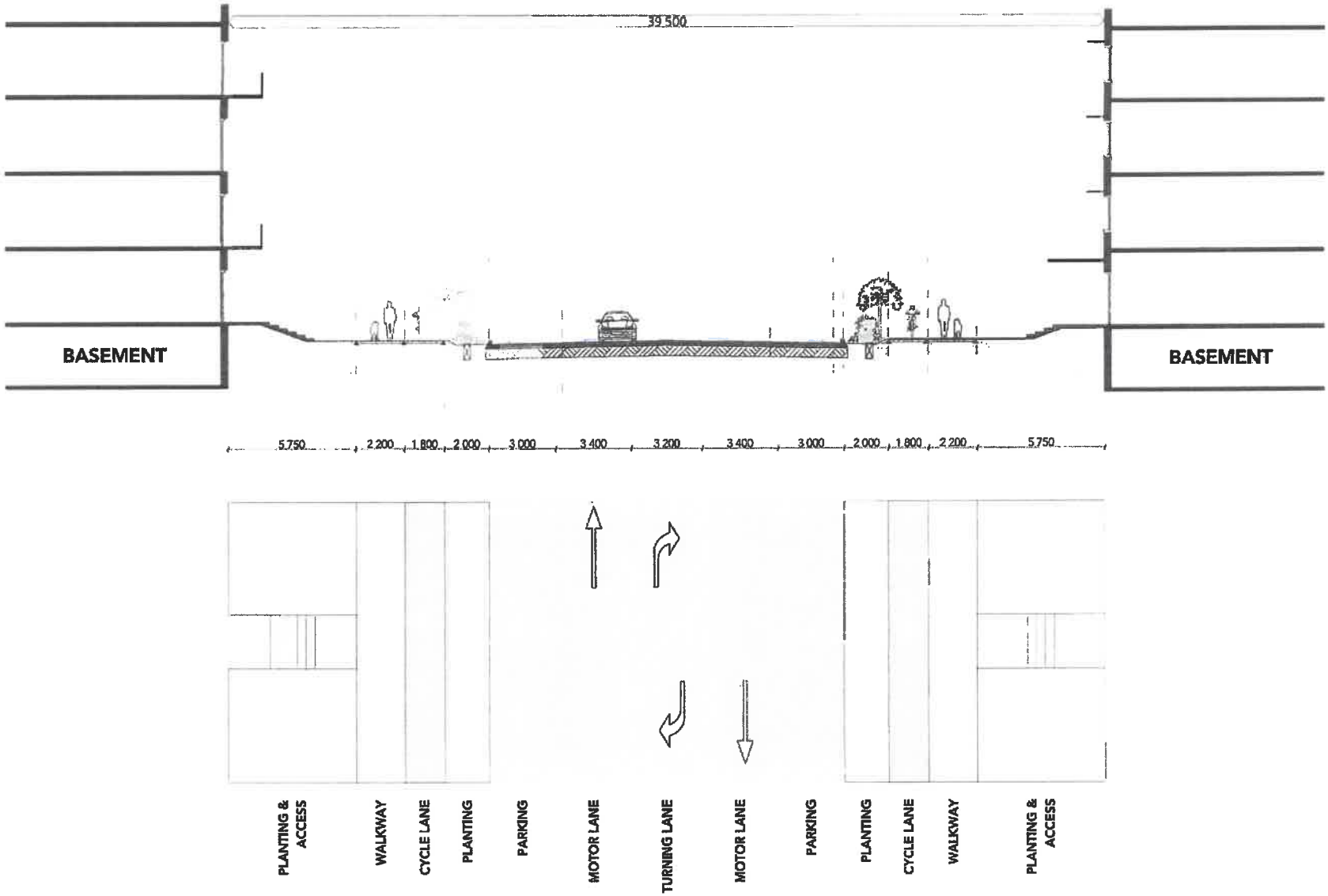
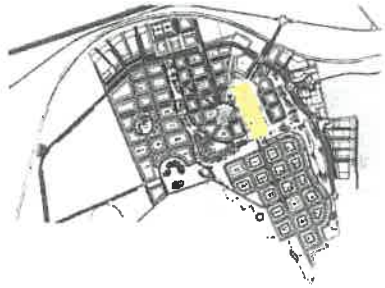


Figure 49.

EDGE 4: P06 | 1D SECTION B



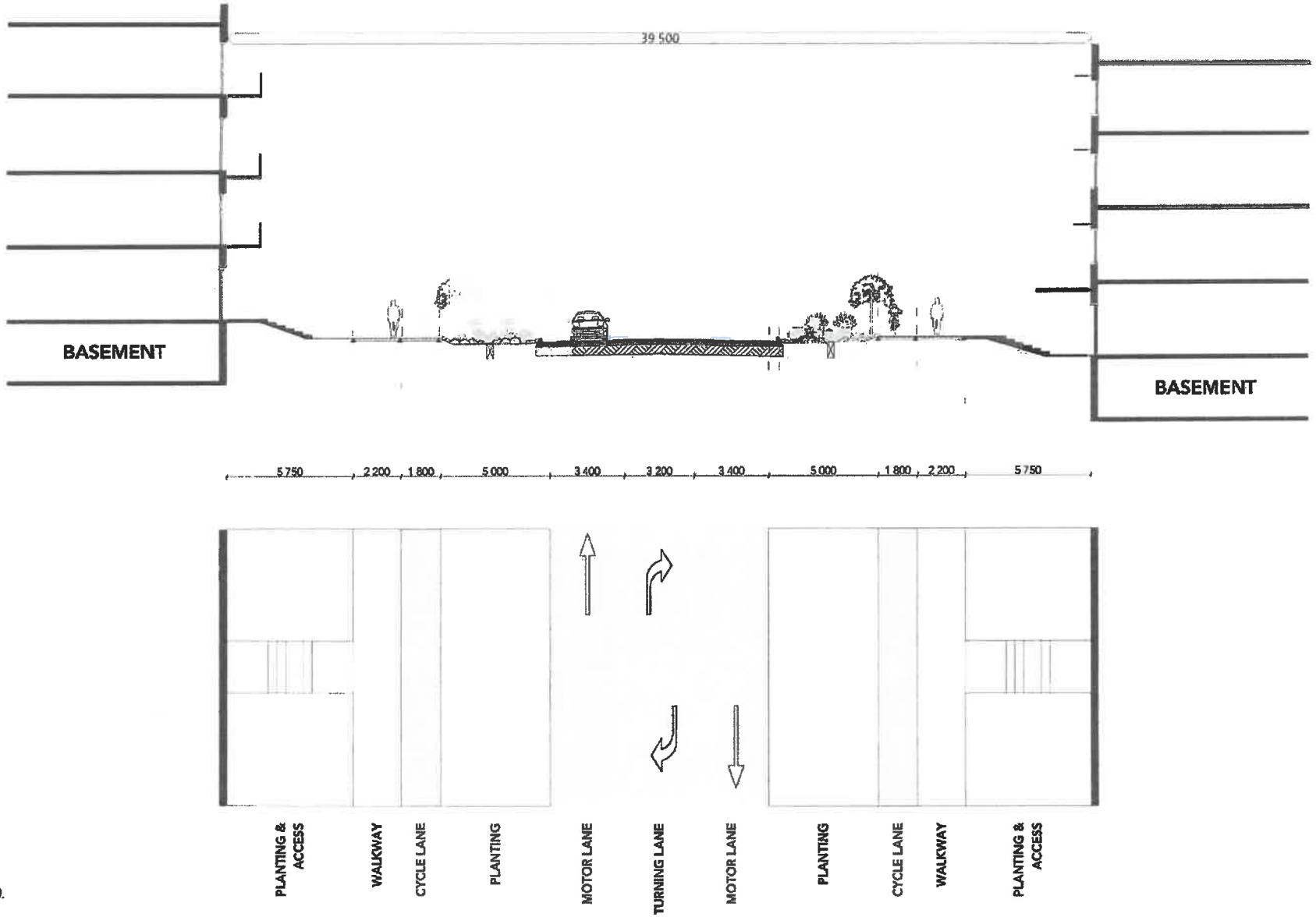


Figure 50.

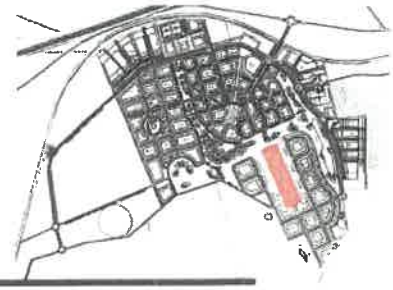
EDGE 4: P06 | 1D
(INDICATIVE IMAGES)

Figure 53.

Figure 54

Figure 55.

EDGE 5: P07 | 1E



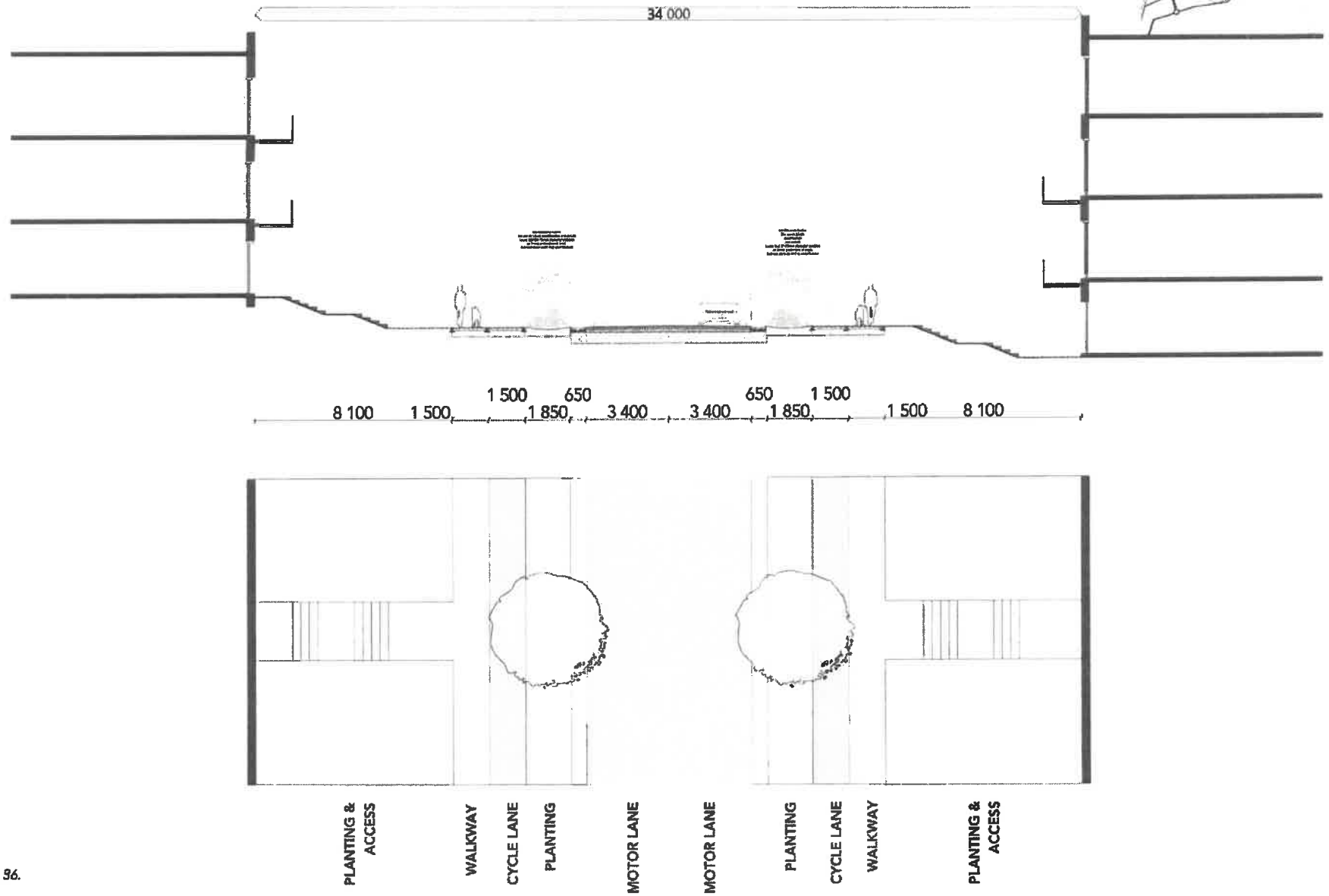
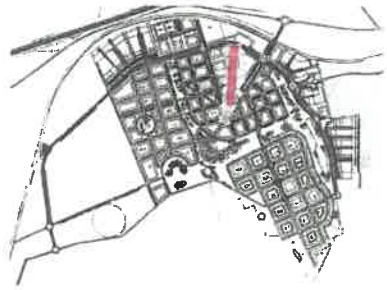


Figure 96.



EDGE 6: P08 | 3A

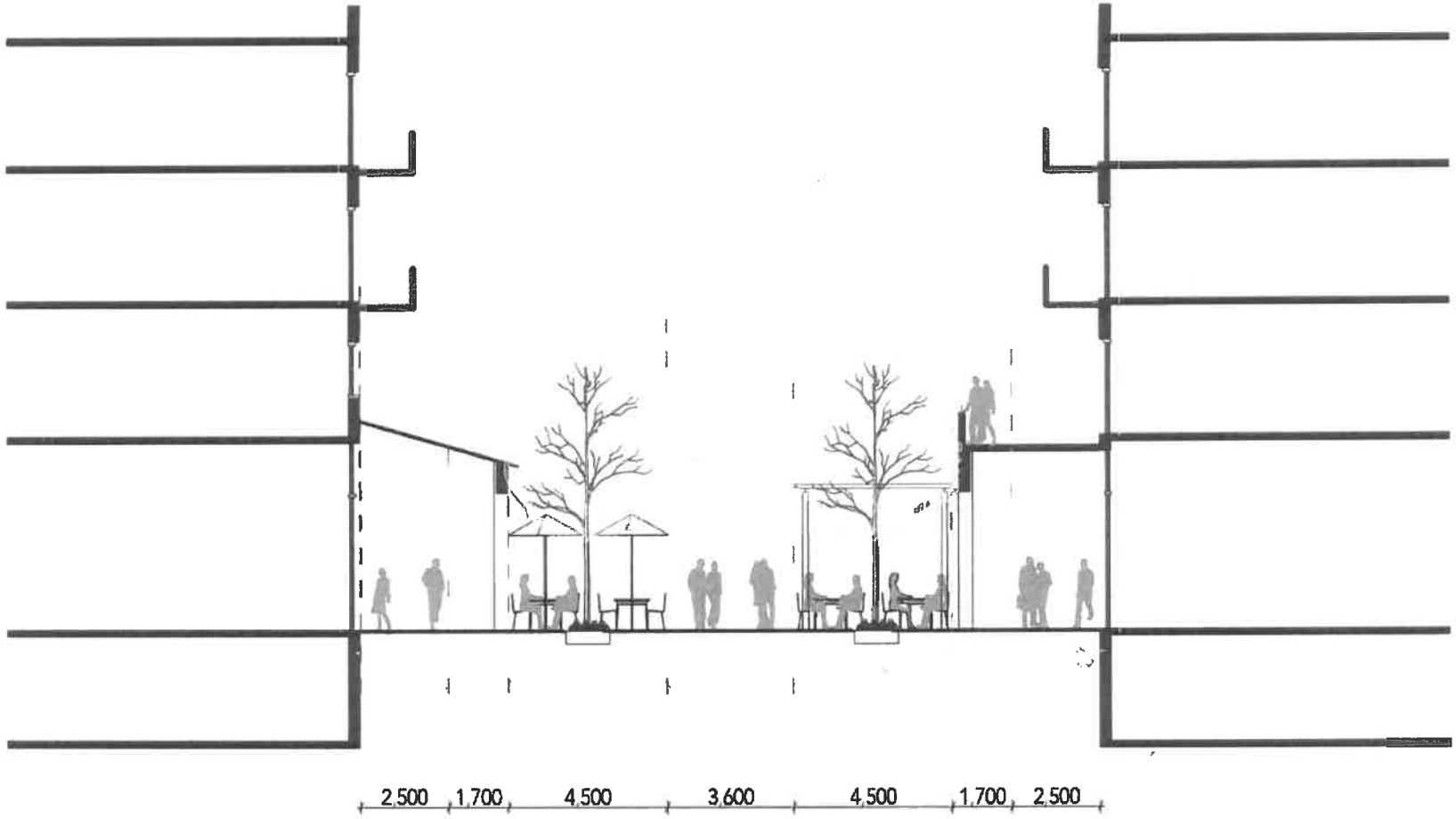


Figure 57.

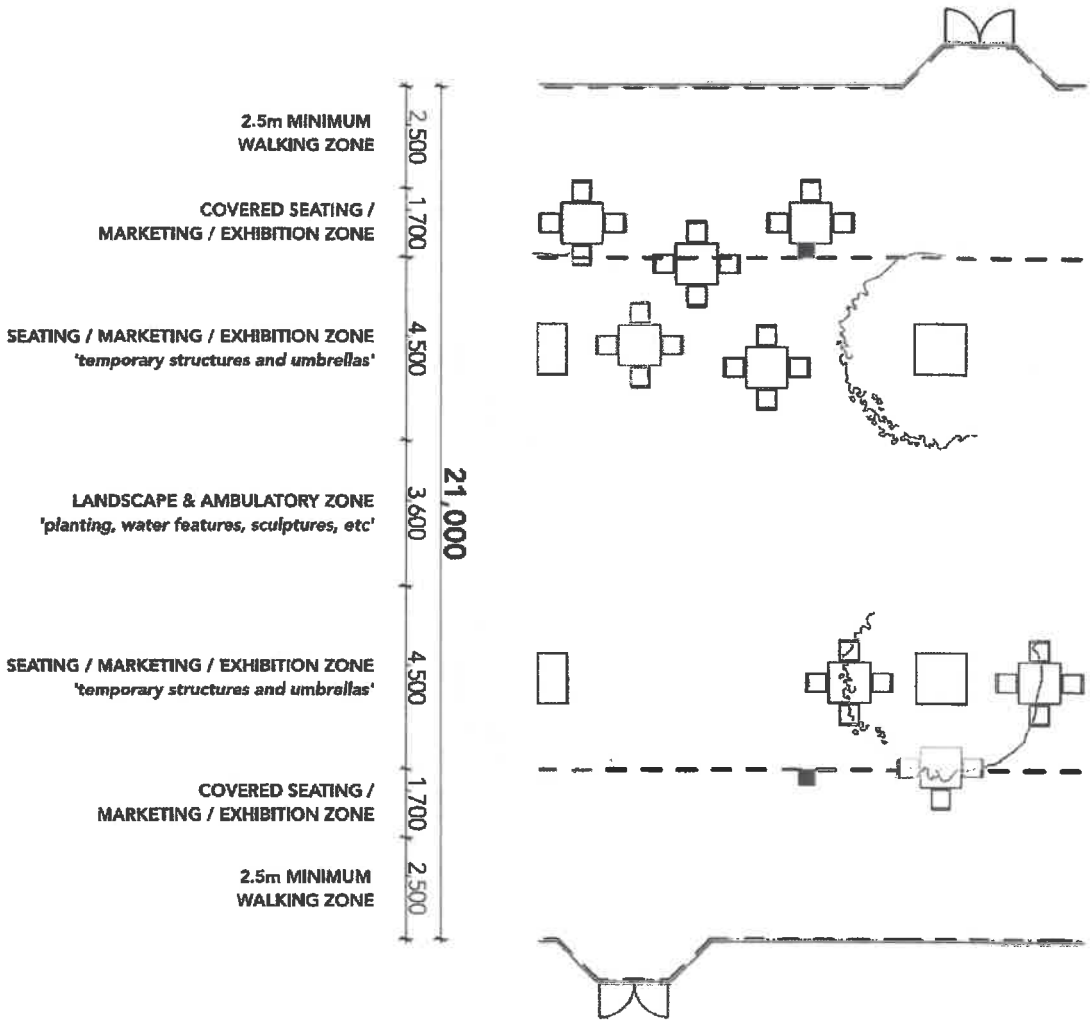
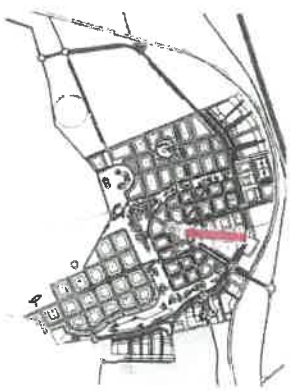

2.5m MINIMUM WALKING ZONE
2,500
COVERED SEATING / MARKETING / EXHIBITION ZONE
1,700
SEATING / MARKETING / EXHIBITION ZONE
'temporary structures and umbrellas'
4,500
LANDSCAPE & AMBULATORY ZONE
'planting, water features, sculptures, etc'
3,600
21,000
SEATING / MARKETING / EXHIBITION ZONE
'temporary structures and umbrellas'
4,500
COVERED SEATING / MARKETING / EXHIBITION ZONE
1,700
2.5m MINIMUM WALKING ZONE
2,500

Figure 58.

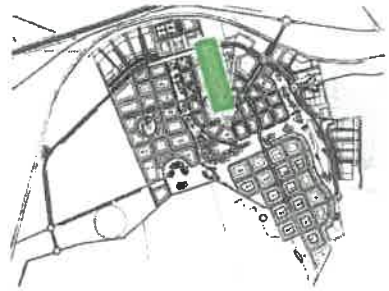


EDGE 6: P08 | 3A
PEDESTRIAN RETAIL STREET

Figure 60.

Figure 62.

EDGE 7: P09 | 4A



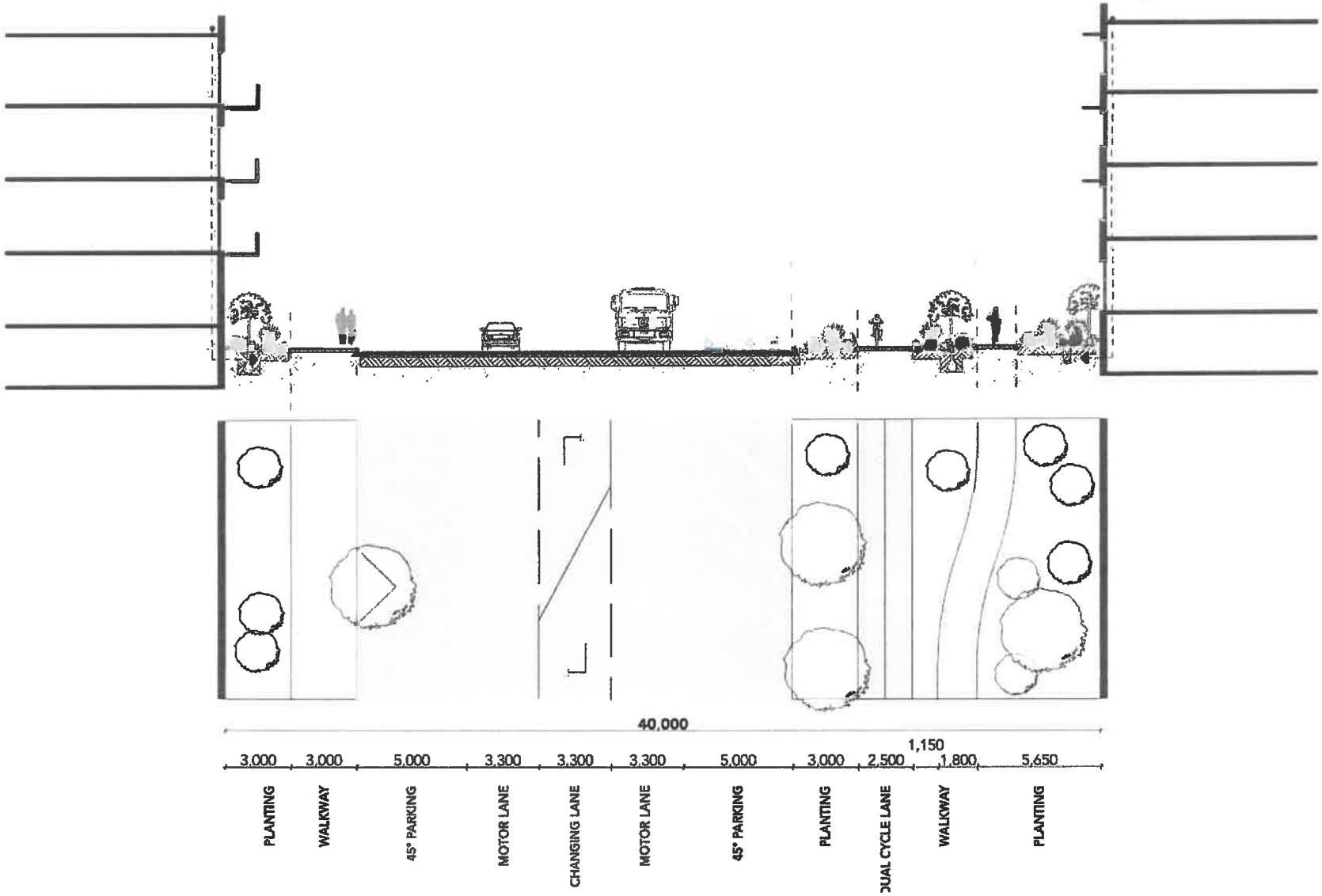


Figure 63.

EDGE 7: P09 | 4A:
GREEN STREET

Figure 66.

Figure 67.

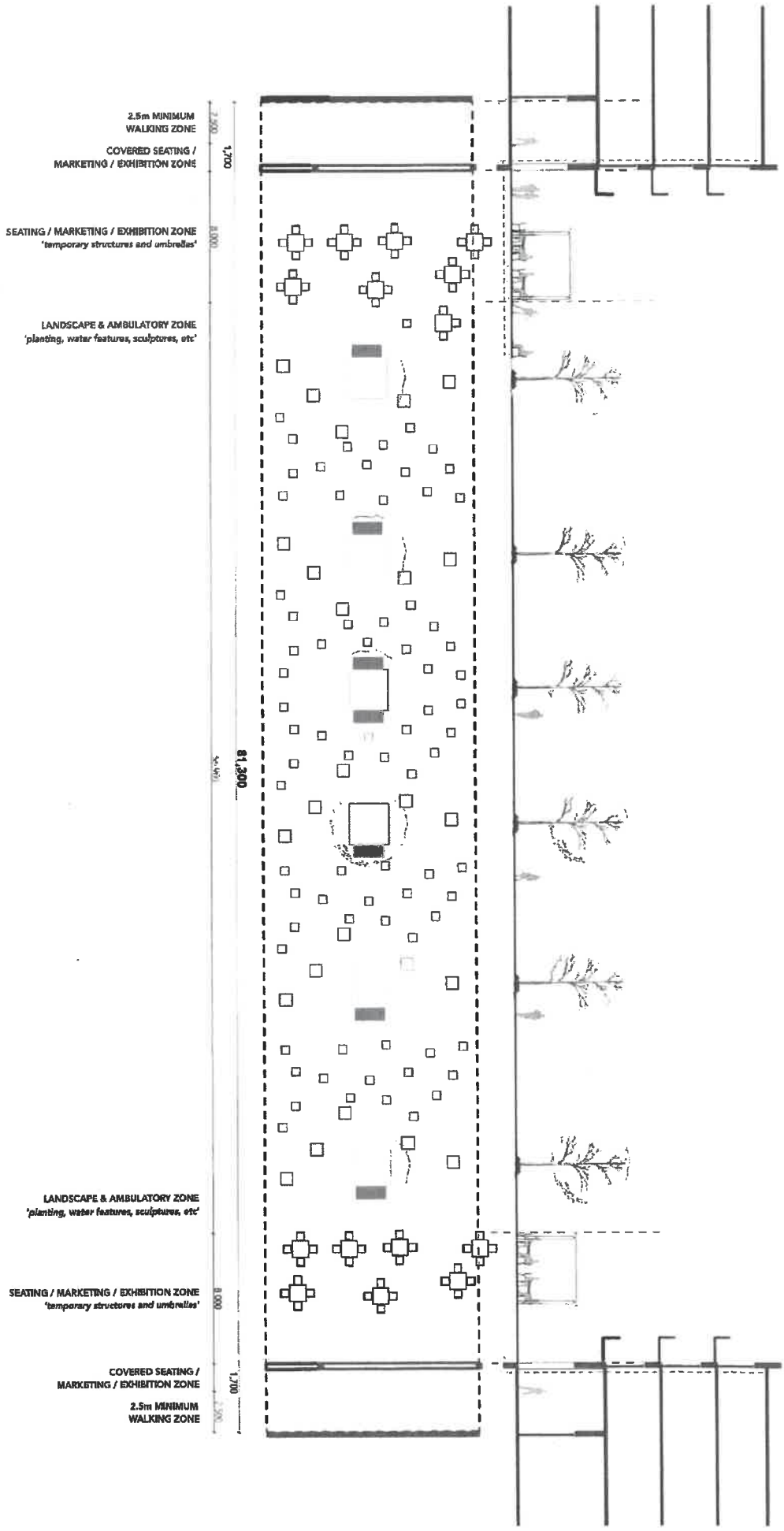

2.5m MINIMUM WALKING ZONE
COVERED SEATING / MARKETING / EXHIBITION ZONE
SEATING / MARKETING / EXHIBITION ZONE
'temporary structures and umbrellas'
LANDSCAPE & AMBULATORY ZONE
'planting, water features, sculptures, etc'
81,300
LANDSCAPE & AMBULATORY ZONE
'planting, water features, sculptures, etc'
SEATING / MARKETING / EXHIBITION ZONE
'temporary structures and umbrellas'
COVERED SEATING / MARKETING / EXHIBITION ZONE
2.5m MINIMUM WALKING ZONE

Figure 68.

EDGE 8: P10 | SQUARE

Figure 69.

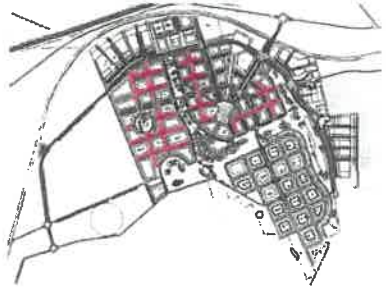
Figure 70.

Figure 72.

Figure 71.

Figure 73

EDGE 7: P11 | TYPICAL STREET



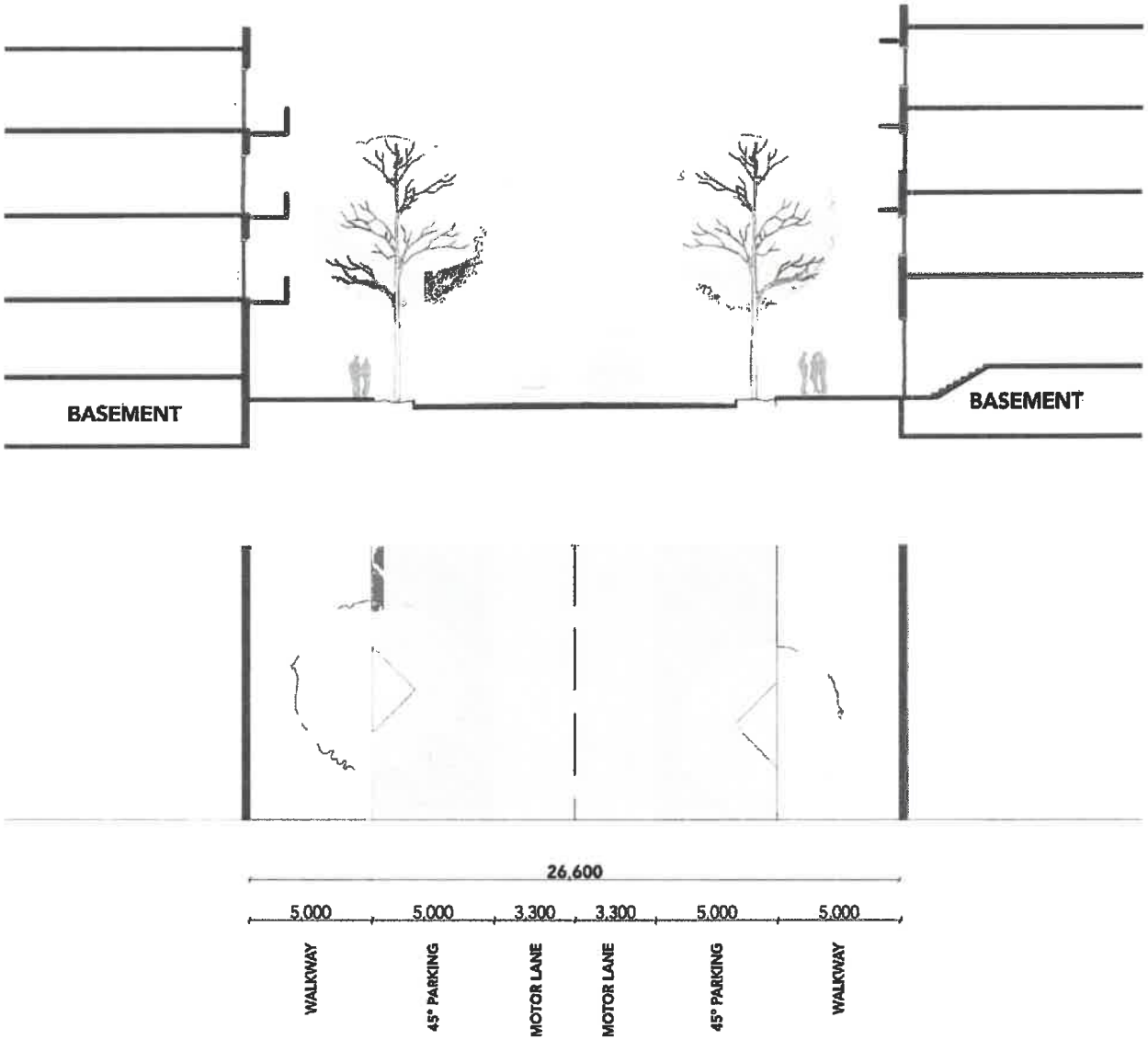


Figure 74.

EDGE 7: P11 | TYPICAL STREET


Figure 75.


Figure 77.


Figure 76.


Figure 78.

3.5 EDGE CONDITIONS

3.7.1 A series of distinct edge conditions have been established to define the public-private interface in specific areas. The physical design of the edges and the activities that can be accommodated along them support both the legibility and place making for the entire development.

These edges are:
- Edge 1: Interface of Offices/ Commercial with Innovation Boulevard
- Edge 2: Interface of Offices/ Commercial/Residential with Stellenbosch Bridge Boulevard
- Edge 3: Interface of Industrial buildings across the Stellenbosch Bridge Boulevard
- Edge 4: Interface of Offices/ Commercial/Residential with Connecting Streets
- Edge 5: Interface of Retail/ Commercial/Offices/Hotel/Residential with Innovation Square and Station Square
- Edge 6: Interface of Retail/ Commercial/Offices/Hotel/Residential with Pedestrian Retail Street
- Edge 7: Interface of Residential buildings
- Edge 8: Interface of Offices/ Commercial with Main Spine.
- Edge 9: Interface of Offices/ Commercial/ Residential with Green Street.

Figure 79. Critical Biodiversity Areas and landscape informants

Figure 80. Existing Natural Features

500

Figure 83. Existing Natural Features

3.7 INTERNAL STREETS

3.7.1 Landscaping on the internal roads will be provided by the Primary Developer, and will be maintained and managed by the Property Owners Association.

3.7.2 Landscaping in internal courtyards will be the responsibility of the particular secondary developer to maintain and manage.

3.7.3 The interface between the buildings and the public street must comply with the relevant landscaping guidelines.

Figure 86 Landscaping of Internal Courtyards will be the responsibility of the secondary developer

Figure 89.

Figure 88. Landscaping on the internal roads will be provided by the Primary Developer

Figure 87. Landscaping on the internal roads will be provided by the Primary Developer

SECTION 4: ARCHITECTURAL CODES AND GUIDELINES

4.1 PRINCIPLES

THE ARCHITECTURE SHOULD GROW FROM LOCAL CLIMATE, TOPOGRAPHY, HISTORY, AND BUILDING PRACTICE.

The architectural codes are intended to guide development over time and achieve the following:

- Encourage an architecture that is innovative in design, while recognizing its locality; environmentally sustainable and uncompromising in establishing a town of excellence and distinction.
- Provide a range of typologies to allow a diversity and flexibility of applications.
- Create a unique corporate address by ensuring that the new buildings and the open space are seamlessly interlaced, integrating the site's natural features.
- Provide clarity of pedestrian and vehicular access.
- Orientate buildings towards the public realm to animate the streetscape.
- Encourage passive climate control elements, which may be accentuated as building design elements.
- Adhere to design directives dealing with mass, materials, footprint, form and heights of buildings.
- Adhere to design directives of building envelopes and external elements, including signage.
- Accommodate the required parking bays above and/or below ground.
- Continuity of materials of high quality and enduring appearance, appropriate to the specific use and position.
- Consistency of colours and textures.
- Promote the use of local materials which are robust, low maintenance and provide suitable technological solutions.

Figure 90. - 93: The Architecture should grow from local climate, topography, history, and building practice

Figure 94.

Figure 95.

4.2. MATERIALS AND QUALITY OF WORK

4.2.1 Building materials of a high quality are to be used in order to ensure the structural integrity of the buildings over time, and to maintain their appearance.

4.2.2 Within the constraints of the colour code a wide range of materials is possible. (Figures 63-66)

4.2.3 In general, materials which are high quality and low maintenance and which assist in the expression of the architecture should be used.

4.2.4 All materials and their application are to be to the satisfaction of the Developer's Assessment Panel whose judgement will be directed by, but not limited to, the extent to which any material is integral to achieving a high quality, architectural design.

4.2.5 All materials should have an adequate record of application in the local climatic conditions.

4.2.6 High quality materials such as suitably treated glass, anodised or coated aluminium, stainless steel, and natural stone are acceptable and encouraged. Other high quality products will be considered but only at the discretion of the Developer's Assessment Panel.

4.2.7 All surface coatings are to be long lasting, enduring in quality and appearance with low to moderate maintenance needs.

4.2.8 Wall materials may vary from high quality masonry block to sealed or painted textured plaster surface, suitable stone and offshutter concrete.

4.2.9 The choice of materials should reflect energy conservation consciousness, appropriate to the building's use.

4.2.10 All buildings should have articulated façades with the use of shading devices, and generous overhangs strongly encouraged.

4.2.11 The latest issues of specifications, regulations and codes of practice (e.g. SABS/SANS specifications) shall be applicable. Wherever the SABS/SANS has prepared specifications for materials or products, such materials or products, are to be made and supplied to the Bureau's specification, and further, where materials and products are manufactured by Permit Holders of the SABS, such materials and products must be supplied with the SABS/SANS Codes of Practice.

Figure 96. - 99 Images showing the preferred materials and their application.

Figure 100. Image showing appropriate mix of lightweight and solid construction

4.3 COLOURS AND TEXTURES

4.3.1 A range of white; dark greys, natural stone; and timber should be used as a unifying theme of all architecture throughout the town.

4.3.2 LIST OF SUGGESTED / PREFERRED COLOURS & TEXTURES:

- General - white to grey, sand to taupe, monochromatic as shown in Figure 68.

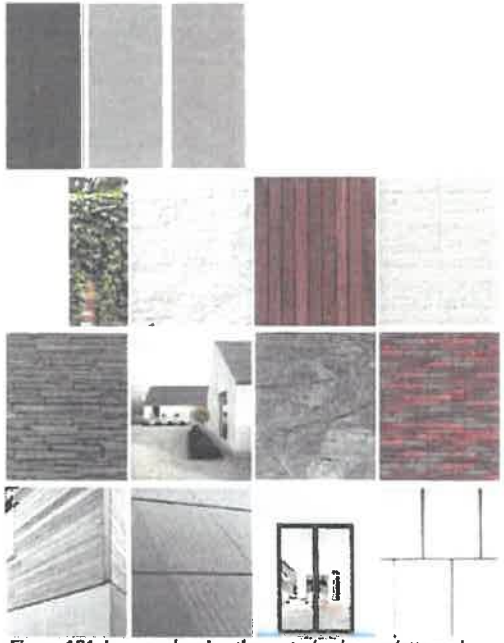


Figure 101. Images showing the muted colour palette and range of textures for SBP.

Figure 102 -105. Images showing the preferred palette of colours and textures to be used throughout the SBP

4.4 ARCHITECTURAL CODES: ELEMENTS OF THE BUILDING

4.4.1 FAÇADE TREATMENT: HORIZONTAL TREATMENT & VERTICAL MODULATION

4.4.1.1 The design of the façade must add to the continuity of the street edge and the cohesiveness of the entire precinct.

4.4.1.2 The manner in which the building meets the ground must be addressed positively: a plinth or base is suggested. Underground parking lots may be treated in such a way as to serve as a plinth

4.4.1.3 To create a well-defined street front architecture the following should be incorporated: (Figures 70 & 71),
- Canopies and awnings
- Balconies and terraces to animate the street façade

4.4.1.4 As with other elements of the composition, the onus is on the architect to demonstrate to the Developer how any of the above elements are to relate to adjacent buildings, existing or not, and promote continuity of streetscape.

4.4.1.5 The scale and placement of the buildings is important in providing a unity of structure. Extensive, unrelieved façades are discouraged, as are isolated and standalone ones.

The proportioning system and façade composition used is a vital element in the overall design of the building and the manner in which it is to be used. The architect will be expected to demonstrate to the Developer how the module relates to the overall design of the building.

4.4.1.6 All apertures and fenestration should be carefully considered in a proportional system that brings all windows, doors, balconies and recesses into a relationship with the façade's specific modulation.

4.4.1.7 FAÇADE MATERIALS AND COLOURS

The facade treatment should follow the general guidelines for materials and colours, as specified for Stellenbosch bridge.

Figures 106-107: Images showing articulated facades, with balconies and sunshades.

FACADE TREATMENT

4.4.2 SHADING DEVICES

4.4.2.1 Buildings are required to be energy efficient and must include passive solutions to climate control to reduce reliance on mechanical solutions. Such approaches include facade layering, shading of glass, suitable shading of north, east and west facades.

4.4.2.2 Most sun-screening devices such as balconies, colonnades, canopies, awnings, eaves, overhangs and multi-planar façades are encouraged.

4.4.2.3 Where heat-retardant glass is to be used, and subject to the materials specification in Annexure E, reflective mirror-faced glazing is not permitted.

Figure 111 Buildings must include passive solutions to climate control

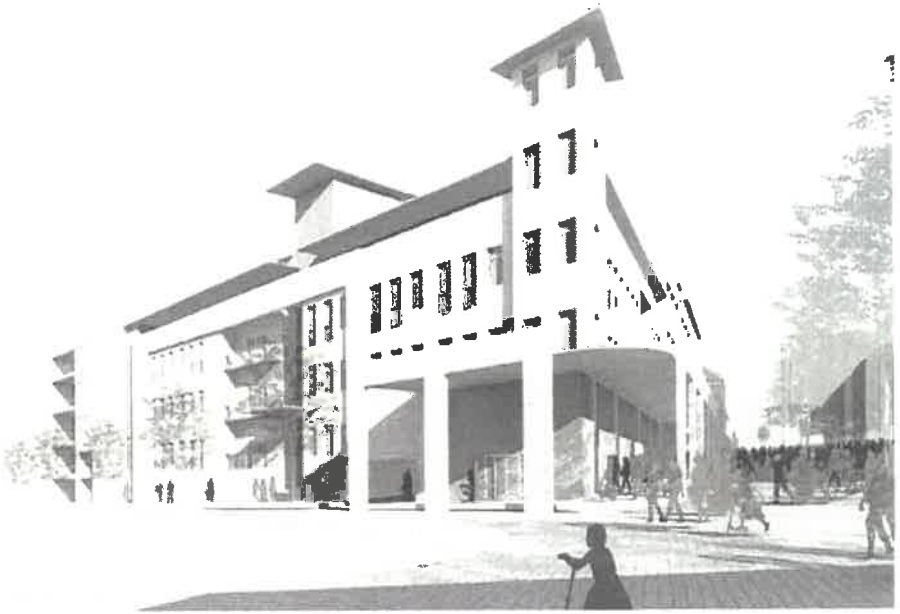
***Figures 112- 118: Image showing facade** shading through planting and louvres, deep recesses, colonnades, balconies, eaves and overhangs*

4.4.3 CORNER TREATMENT

4.4.3.1 There are a number of corner buildings in the town. Some of these are shown to require 'iconic status'.

4.4.3.2 The architectural treatment of corner buildings is to be accentuated through height, stature, elaboration and detailing.

Special consideration is to be given to signage on buildings that are iconic or form focal points.



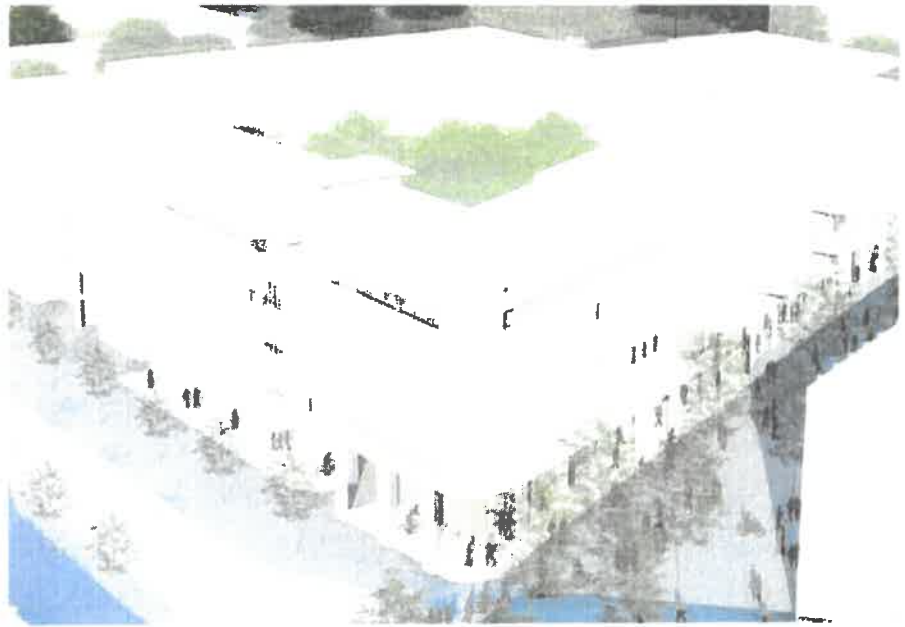
Figures 119-123: Images showing sites earmarked for iconic corner treatment

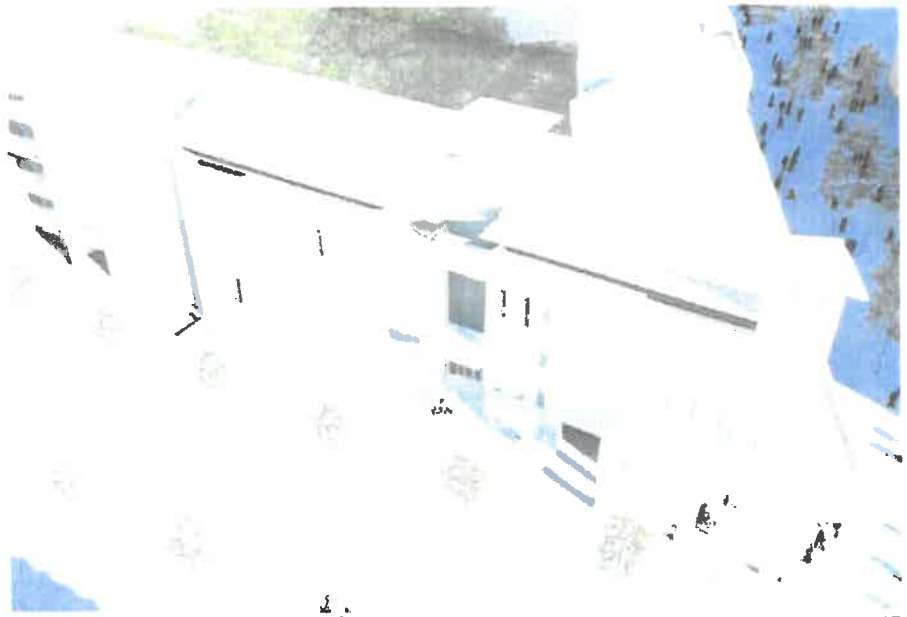
4.4.4 ROOFING

4.4.4.1 A varying roofscape made up of pitched and 'flat' roofs is envisaged. Permitted materials include: (figure 55).

- High quality seamless fix, factory colour coated roof sheeting
- Concrete trafficable roof with appropriate finish, drainage, insulation and waterproofing
- 'Green Roof' – consisting of appropriate planting on fill on a Concrete roof with appropriate drainage, insulation and waterproofing

4.4.4.2 The roof should be considered as an integral aesthetic component of the building. The architecture must consider the relationship of the building to the skyline and to adjacent developments when viewed from various perspectives.





Figures 124 -129.. Images showing separate, low pitch roof forms that create a complex,use-appropriate roofscape

4.4.5 SIGNAGE: EXTENT, TYPE AND POSITION

4.4.5.1 In general, only the name of the company having naming rights to the building shall be displayed on the building's façade.

4.4.5.2 The architect must demonstrate to the Developer how any signage placed on a building's façade will form an integral part of the building's architecture. In addition, the building owner and architect will be expected to provide the Developer with a 'signage code' relevant to the building which designates a zone, or zones where signage is allowed and the restrictions placed on tenants with regards to such signage. This code is to form part of any standard tenant lease agreement and is to be the sole basis of any signage on the building's exterior.

Signage Zones:
A - Entrance Portal Zone
B - Alongside Entrance
C - Horizontal Corner Signage
D - Pedestrian Entry / Doorway signage
E - Vertical Corner Signage.

4.4.5.3 Each building is to have its street address displayed prominently at the main street entrance of the building. Such signage is to be in keeping with the character of the building and should be consistent with a signage "language" developed for the building as a whole in terms of typography, scale, material, fixing and lighting.

4.4.5.4 No sign shall be displayed on any exterior façade of a building without prior approval of the Developer. Similarly, the naming of buildings will be at the discretion of the Developer. Not more than one sign may be displayed on any one façade of a building provided that the Developer may waive this restriction where the length, proportions and form of the façade merit such waiver, or subject to the provisions of 4.5.6.5 below.

4.4.5.5 Where a development has been designed as a series of discrete units of a building, more than one company name may be displayed provided that only one name appears on each unit and that the sign is suitably reduced in scale to relate to the unit to which it applies. This multiple signage may be displayed on the façade of the building within a zone not exceeding 6m from the sidewalk to which the building relates. Products may not be advertised on the façade in this zone.

4.4.5.6 No product may be displayed or advertised except in the case of buildings designed with a retail component where product names and goods may be displayed and the name of the enterprise authorized to trade in and display particular products, may be displayed once per street frontage of the site. These signs must not exceed an overall area of 5m².

4.4.5.7 Signs relating to security services contracted on a particular site are to be limited in their numbers and displayed discreetly.

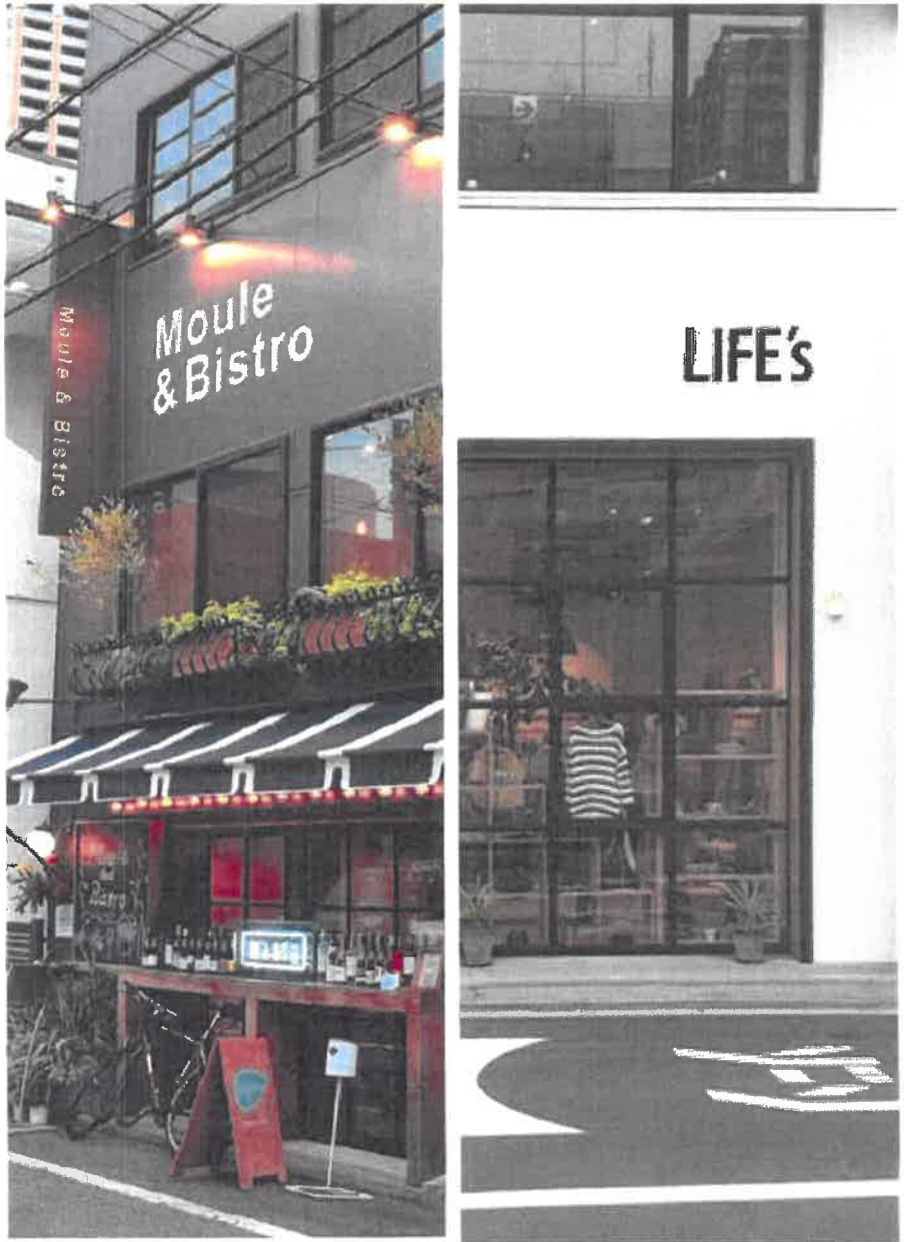


Figure 129. The architect must demonstrate to the Developer how any signage placed on a building's façade will form an integral part of the building's architecture.

4.4.6 SIGNAGE: AESTHETICS (Type, Lighting, Materials)

4.4.6.1 Neither characters nor items of a sign shall exceed 1200mm in height and the sign as a whole shall not exceed 10m in length. Should the sign envisaged not suit these proportions, the guide will be followed that the overall area of the entire sign shall not exceed 12m2 provided that the Developer may, in the individual circumstances of a development, decide that such size may be inappropriate and reduce or increase it.

4.4.6.2 All elements of such a sign are to be affixed by means of concealed fixings and disengaged from the plane of the façade itself. The favoured fixing method encourages each character of a sign to be pin mounted individually at least 20mm from the surface of the façade.

4.4.6.3 Pylon signage, teardrop freestanding banners, free standing temporary signboards, banners, rotating (whirligig) signs, sandwich boards, bunting, sails, posters, balloons, blimps or other inflatable devices are all prohibited, unless temporary permission has been given by the Developer for promotions or exhibitions. The erection of flags is prohibited unless specifically approved by the Developer.

4.4.6.4 Signs are to be manufactured of high quality, durable and colourfast materials, preferably of natural or coated aluminium, brass,copper or stainless steel, and preferably with a matt finish. As far as possible the signage on buildings will be confined to monochromatic colours in the range from silver to white to grey to black. Only in instances of corporate livery or branding will accent colours be permitted in a sign.

4.4.6.5 Plastic or perspex signs and signs painted directly onto the façade will not be allowed.

4.4.6.6 Lighting of signage is to be predominantly in the form of concealed lighting. Signs should be backlit or lit from a remote, hidden source unless such lighting is designed as an integral part of the sign and, hence, of the building's facade.

4.4.6.7 Use of neon lighting is strongly discouraged, except for lighting iconic elements, for which use of neon lighting is encouraged. Moving, flickering or flashing signage is expressly prohibited

Figures 131 -136: Signage Aesthetics

SECTION 5: SECURITY AND FENCING

5.1 With the emphasis on street-related architecture, the building itself must form the secure edge of the site.

5.2 The security of the building and lot must be designed as an integral part of the building's architecture and public façade.

This can be achieved in the following ways:

- Where applicable, mixed use activities such as retail and restaurants at ground floor level should be open to the street to enhance passive surveillance
- Basement ventilation grilles are to form an integral part of the building's architecture
- Any roller shutter grilles or gates securing access to driveways and parking areas should be visually permeable and aesthetically pleasing.
- Additional means of security such as CCTV and electronic beams are to be integrated into the overall architectural design.
- Lower level windows to public streets may be designed as non-opening elements. Toughened glass may also be a means of securing these apertures. Burglar bars are allowed, at the discretion of the Developer.
- Fencing may be required to strengthen perimeter security where a city block remains incomplete. Only visually permeable, high quality fencing will be allowed, and is to be applied at the discretion of the Developer. (Figure 91)

5.3 Additional security measures proposed by secondary developers will be assessed by the Developer and the POA in terms of the overall security strategy established for Stellenbosch Bridge

Figure 138. security of the building and lot must be designed as an integral part of the building's architecture

Figure 137. Only visually permeable, high quality fencing will be allowed

Figure 139. The building itself must form the secure edge of the site.

SECTION 6: BUILDING INNOVATION AND TECHNOLOGY

6.1. OVERVIEW

SUSTAINABILITY & ENERGY EFFICIENT DESIGN

The design of buildings in an innovation district has to create communities, facilitate collaboration and create serendipitous encounters in addition to housing innovation orientated activities.

The architecture has to facilitate and promote sustainability and innovation through design, planning processes, use of materials, construction processes and facility management.

The focus of the building has to be on the people occupying it for comfort, ease of use and diversity of options to perform functions in the provided spaces. At the same time speaking to human senses. Promotion of face to face communication and continuous visibility of occupants by each other is paramount.

The Stellenbosch Bridge Development encourages developers and architects to take reduced energy consumption and sustainability into consideration in their designs and to exceed the mandatory South African National Standard (SANS) 10400-XA Regulations. For more detailed information about the key directives of building innovation and technology processes refer to Annexure F.

All buildings in the Stellenbosch Bridge Development need to conform to the Green Star Guidelines. Refer to the Green Building Council of South Africa (GBCSA) Green Star Guidelines in Annexure H.

Figure 141

Figure 142.

Figure 143.

Figure 144.

Figure 145.

Figure 146.

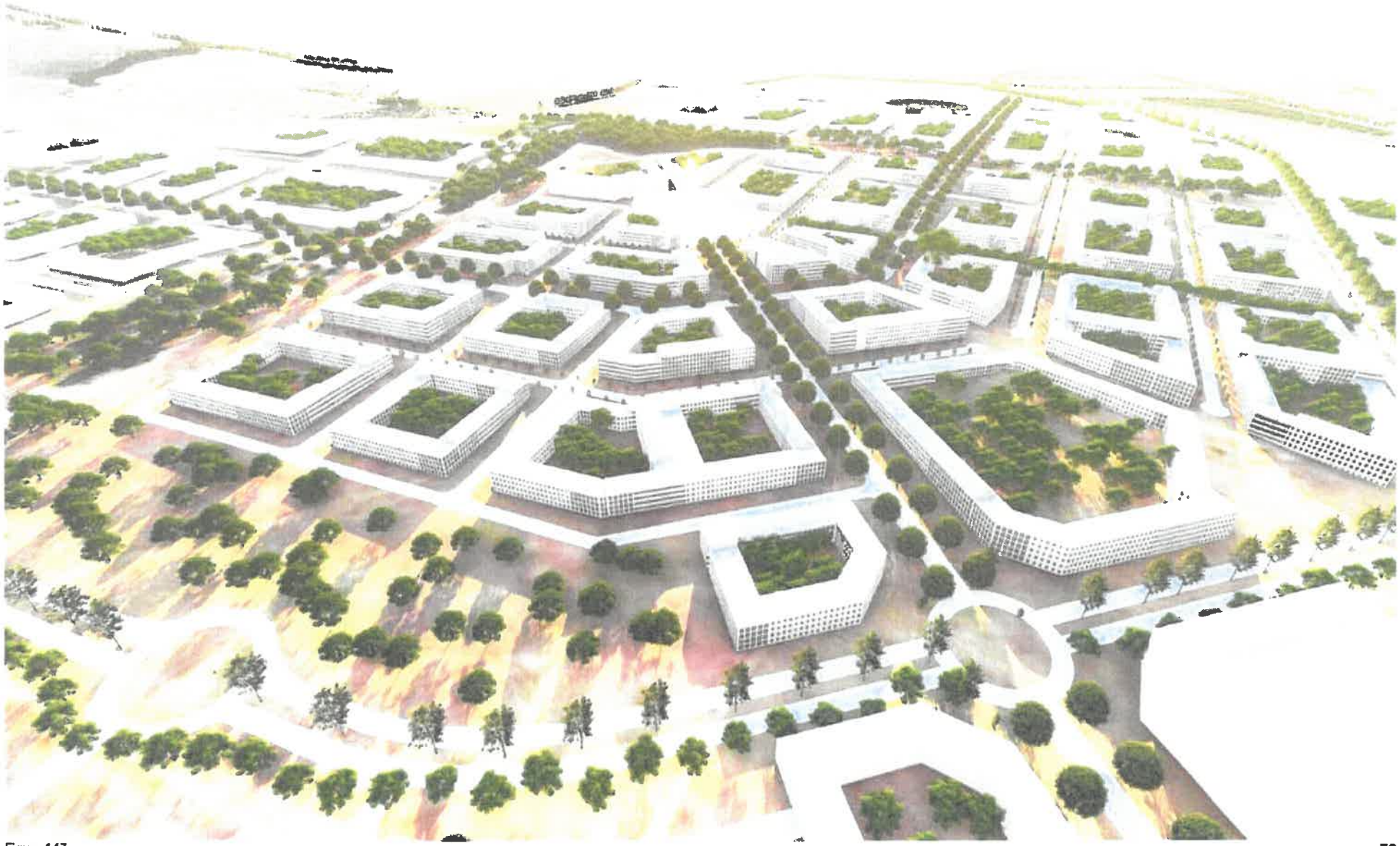
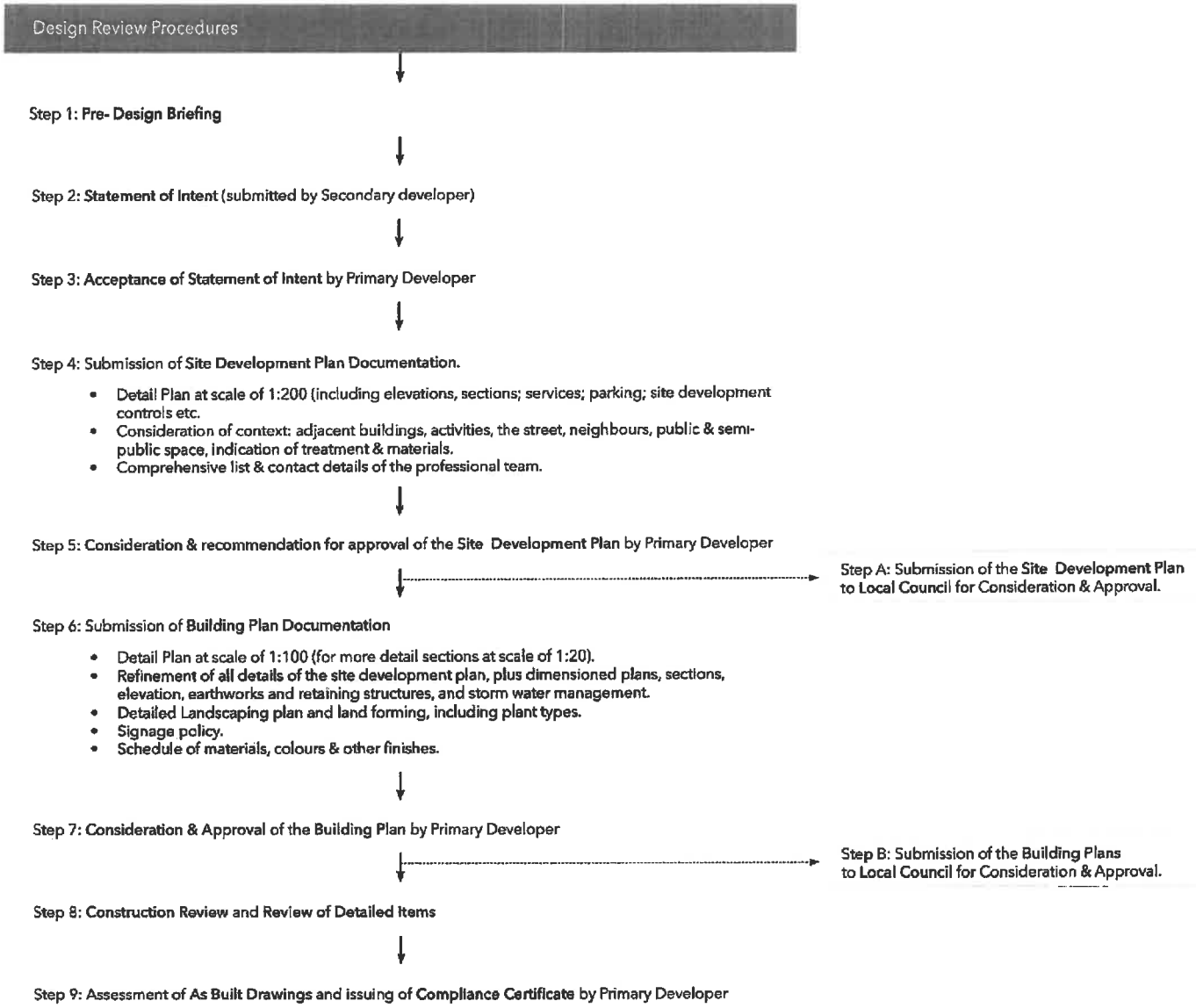


Figure 147.

ANNEXURES

ANNEXURE A: STELLENBOSCH BRIDGE - DESIGN REVIEW PROCESS



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522

523

	TYPICAL OFFICE / COMMERCIAL	TYPICAL INDUSTRIAL	RESIDENTIAL	RETAIL	OTHER
Roof	A: Flat concrete roof or flat concrete roof with landscaping (green roof); B: Visible pitched roof- metal profiled sheeting, colour treated (dark grey); C: Low pitched metal roof to be concealed behind parapet; No concrete/ clay tiles. Flat roofs to have trafficable surface. Sculptural roof elements permitted to enhance entrances or at landmark situations (as identified on land parcel sheets), subject to assessment panel approval.	A: Flat concrete roof or flat concrete roof with landscaping (green roof); B: Visible pitched roof- metal profiled sheeting, colour treated (dark grey); C: Low pitched metal roof to be concealed behind parapet; No concrete/ clay tiles. Flat roofs to have trafficable surface. Sculptural roof elements permitted to enhance entrances or at landmark situations (as identified on land parcel sheets), subject to assessment panel approval.	A: Flat concrete roof or flat concrete roof with landscaping (green roof); B: Visible pitched roof- metal profiled sheeting, colour treated (dark grey); C: Low pitched metal roof to be concealed behind parapet; No concrete/ clay tiles. Flat roofs to have trafficable surface. Sculptural roof elements permitted to enhance entrances or at landmark situations (as identified on land parcel sheets), subject to assessment panel approval.	A: Flat concrete roof or flat concrete roof with landscaping (green roof); B: Visible pitched roof- metal profiled sheeting, colour treated (dark grey); C: Low pitched metal roof to be concealed behind parapet; No concrete/ clay tiles. Flat roofs to have trafficable surface. Sculptural roof elements permitted to enhance entrances or at landmark situations (as identified on land parcel sheets), subject to assessment panel approval.	Green Roofs Encouraged.
External / Vertical Surface Treatment / Walls	Majority of facade to be white rendering/ plaster. Natural stone; facebrick; off shutter concrete; timber and metal sheeting accents.	External White Plaster. Metal sheeting accents.	Majority of facade to be white rendering/ plaster. Natural stone; facebrick; off shutter concrete; timber and metal sheeting accents.	Majority of facade to be white rendering/ plaster. Natural stone; facebrick; off shutter concrete; timber and metal sheeting accents.	
Windows / Fenestration	Vertical proportioned aluminum or timber (painted or natural) frames/ mullions. ; openable; curtain wall type/ glazing as accent; deep recesses are encouraged; no mirror glass. No continuous strip windows - at lower and intermediate levels, individually identifiable elements required. Curtain walling permitted only at entrances or for specific effect, and subject to assessment panel approval.	Vertical proportioned aluminum or timber (painted or natural) frames/ mullions. ; openable; curtain wall type/ glazing as accent; deep recesses are encouraged; no mirror glass. No continuous strip windows - at lower and intermediate levels, individually identifiable elements required. Curtain walling permitted only at entrances or for specific effect, and subject to assessment panel approval.	Vertical proportioned aluminum or timber (painted or natural) frames/ mullions. ; openable; curtain wall type/ glazing as accent; deep recesses are encouraged; no mirror glass. No continuous strip windows - at lower and intermediate levels, individually identifiable elements required. Curtain walling permitted only at entrances or for specific effect, and subject to assessment panel approval.	Vertical proportioned aluminum or timber (painted or natural) frames/ mullions. ; openable; curtain wall type/ glazing as accent; deep recesses are encouraged; no mirror glass. No continuous strip windows - at lower and intermediate levels, individually identifiable elements required. Curtain walling permitted only at entrances or for specific effect, and subject to assessment panel approval.	Heat-retardant glass: no 'mirror' / highly reflective glazing.
Building base / Plinth	Natural stone/ Facebrick/ White plaster/ concrete or timber accents on plinths, lintels, plinths, feature walls.	Natural stone/ Facebrick/ White plaster/ concrete or timber accents on plinths, lintels, plinths, feature walls.	Natural stone/ Facebrick/ White plaster/ concrete or timber accents on plinths, lintels, plinths, feature walls.	Natural stone/ Facebrick/ White plaster/ concrete or timber accents on plinths, lintels, plinths, feature walls.	
Canopies / Sun shades	Metal frame with grating, etc; timber/ steel, colour to suite SB pallette. As appropriate to location and facade design. Retractable canopy system permitted. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement. Canopies may be cantilevered or supported by a lightweight structure - subject to assessment panel approval.	Metal frame with grating, etc; timber/ steel, colour to suite SB pallette. As appropriate to location and facade design. Retractable canopy system permitted. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement. Canopies may be cantilevered or supported by a lightweight structure - subject to assessment panel approval.	Metal frame with grating, etc; timber/ steel, colour to suite SB pallette. As appropriate to location and facade design. Retractable canopy system permitted. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement. Canopies may be cantilevered or supported by a lightweight structure - subject to assessment panel approval.	Metal frame with grating, etc; timber/ steel, colour to suite SB pallette. As appropriate to location and facade design. Retractable canopy system permitted. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement. Canopies may be cantilevered or supported by a lightweight structure - subject to assessment panel approval.	
Collonades	Collonades must wrap around building where applicable. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement.			Collonades must wrap around building where applicable. Encouraged for ground floor retail frontages. Max canopy projection to full width of pavement.	
Landscaping	As per Section 5.	As per Section 5.	As per Section 5.	As per Section 5.	
Entrance Portal	Double Volume, shaded from sun.	Double Volume, shaded from sun.	Double Volume, shaded from sun.	Double Volume, shaded from sun.	
Colours	As per SB pallette.	As per SB pallette.	As per SB pallette.	As per SB pallette.	
Textures	As per SB pallette.	As per SB pallette.	As per SB pallette.	As per SB pallette.	
Signage	As per Section 6.	As per Section 6.	As per Section 6.	As per Section 6.	

ANNEXURE F: BUILDING INNOVATION AND TECHNOLOGY

1. OVERVIEW

The design of buildings in an innovation district has to create communities, facilitate collaboration and create serendipitous encounters in addition to housing innovation orientated activities.

The focus of the building has to be on the people occupying it from a comfort, ease of use and diversity of options to perform functions in the provided spaces. At the same time speaking to human senses. Face to face communication and continuous visibility is paramount.

Work space typically involves co-working spaces, meeting spaces and individual "start-up" and scale-up offices / tenant units also known as incubators and accelerators. Sometimes innovation spaces can also be makerspaces where the making does not involve noisy or noxious processes. These types of processes will require space in the light industrial component of the development.

The spaces to be versatile and adaptable so that it does not dictate or restrict process and creativity and promote new ways of communicating and sharing that leads to new and exciting ideas. Purpose and function outweigh aesthetics, however aesthetics is as important in creating a suitable mood / ambiance for the work and communication to proceed. Warm and natural environments are favored with little regimentation – a place or space " in the making" atmosphere, open and inviting.

Figures 1-3

2. DESIGN INTERVENTIONS

2. Design interventions to promote interaction and for people from different floors / zones in the building to meet includes inter alia.

2.1. ATRIUM:
Wide enough to see and recognize people on other levels. Daylight contributor. View down to floor eg. collaboration / co-working desks

2.2. INTERNAL STAIRCASE:
Wide open and inviting to use. Centrally located. Lifts positioned out of sight.

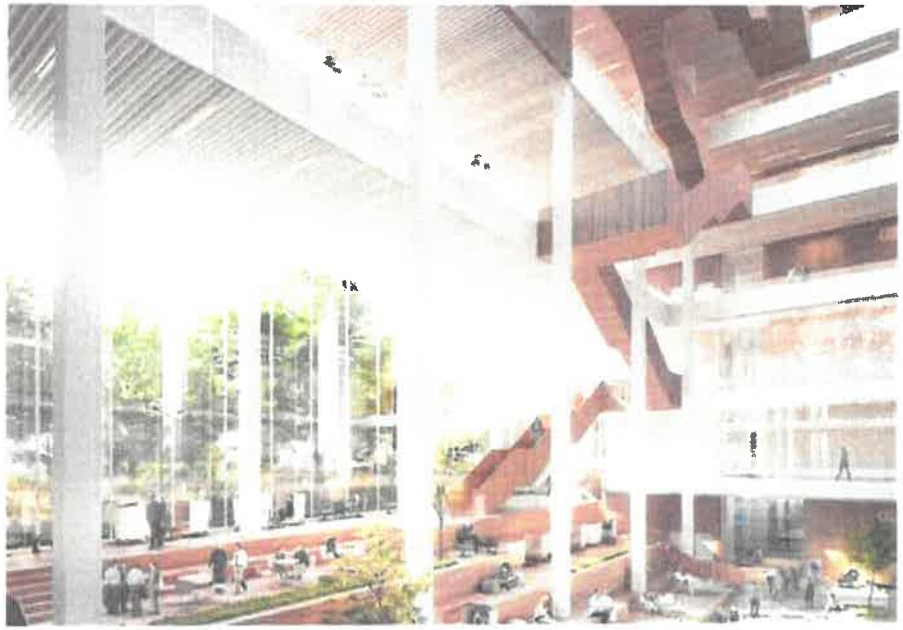
2.3. CORRIDORS:
Designed to move people through each other's zones with glass walls to look in, promote meet-ups by arranging corridors to lead to a central hub before radiating in a different direction. Corridors as controller of noise ie. quiet vs more noisy areas arranged via corridors leading foot traffic to or away from certain areas. Corridors as unstructured meeting spaces. Corridors to lead to informal break away spaces where people are to be seen working / meeting in circumstances that invites others to join eg: indoor or outdoor amphitheatre seating area. Easy link to refreshments and ablutions via these spaces.

These spaces start to blur the traditional divide between "home" and "work" and "public" places.

This is achieved by "domestic style" kitchens and living rooms in these zones with the next step up being coffee bars and café's that includes work / spaces. To add to the blur of specific ways to act in specific spaces "play" spaces are to be added to allow the mind to temporarily focus / concentrate on a totally different activity eg. table tennis etc.

Buildings to be demystified by being open and transparent from the outside in and inside. People who do not necessarily "belong" in the building to be invited to enter and experience and ultimately meet persons and join the community. Anybody to feel they can "own" the space especially on ground floor. Security arrangements to not be visible nor a deterrent. Inside activities to be placed so as to be easily seen and experienced from outside the building.

Spaces to be provided to host the progrmme of events envisaged in the building including visitors from outside eg. foyers, tiered seating, presentation screens, exhibition space, co-working space etc. All aspects of technology to be seamlessly incorporated.



Figures 4-5

3. INNOVATION DISTRICT OVERLAY TO DESIGN GUIDELINES:

The constitution of the village to be co – ordinated with the design guidelines to collectively achieve the goal of an innovation district. Landlords to commit to the following tenanting and general contribution to innovation village goals.

3.1.Innovation sectors shall be clustered and represented by business and research institutions. Bespoke tenanting shall apply. The tenanting / user profiles shall be submitted to the Stellenbosch Bridge management committee to evaluate / comment / approve to fit the bigger picture of concentrating regional economic strengths. Building's design shall allow for multiple tenanting of diverse industries and be easily convertible.

3.2.Building developers shall acknowledge a convergence of different sectors in their building and the precinct. Dissimilar industries to be housed to promote collaborative research / conversation / cross cutting technologies to evolve. Tenants shall subscribe to participation in some collective research and development activities in open forums / presentations / events etc. in their spaces and / or communal spaces provided in the building.

Space planning shall therefore include visitors areas, presentation areas, co-working and display areas. Residential opportunities shall be promoted on or next to work spaces.

3.3.Tenanting shall have a diversity of sizes in the addition to diversity of industry / research sectors.

Collaboration between larger corporate tenants / research institutions and smaller start-up firms. private / academic and civic institutions shall be welcomed and promoted in the configuration.

3.4. Landlords shall acknowledge the need to locate diverse industry sectors in close proximity and to be easily accessible and visible in the building. Visual permeability into work zones / reception zones etc. from the street / foyer areas will apply to ensure awareness and promote connection. Each building shall house some open public amenities at street level such as restaurants, shops, service providers / agents. Where the façade is not taken up by these functions, work spaces tenants shall have visibly active activities inside in addition to displays of research / products.

3.5. Landlords and tenants shall partake in the village community life initiatives and design their buildings to offer itself to initiatives such as festivals, decorations, banners, lighting, hook points, extended public realm and other physical infrastructure possibilities. Landlords and tenants shall partake in initiatives to create innovation momentum and awareness and offer their buildings / spaces to contribute in this way indoors and outdoors. The innovation district management committee will run programming initiatives with input /collaboration of all inhabitants to make use of these offerings.

3.6. Each building shall offer an "exceptional" space that is identifiably contrasting with the general aesthetic so as to be a visible landmark, pod or place with a name and identity as a meeting spot / work area.

Figure 6

3.7. Public area displays of innovations and innovation progress:

The innovation district will feature public outdoor and indoor display areas / pavilions / display boxes on sidewalks and the public square. Landlords / tenants shall display and explain their inventions in these areas including audio or text explanations. Tenants will occasionally host their design discussion sessions in such public space and invite participation by other industries in the village or outside. These events will be hosted in suitably designed foyer / common spaces in the buildings until the communal facilities are complete and on ongoing basis. The public square will feature spaces / places where experimental structures can / will be erected and at times run as a visitor / information centre. eg: Green Building interventions.

3. 8. Each Landlord / Building owner shall offer a section / portion of the building for localized handcraft and manufacturing industry with the aim of uplifting local Klapmuts communities. These spaces would be offered t discounted rates until these industries start to thrive.

Examples include jewelry making, leather goods, specialized foods manufacture eg, spices, printing shop, school level assistance such as homework studio / extra classes etc.

3.9.Due to success of the village, rental values will exceed expectation and make spaces unaffordable to start-up companies. Landlords shall offer a suitable % of their space at discounted rates to start-ups and a different but also discounted rate for scale ups. Landlords shall assist tenants with avenues to finance.

3.10. Landlords shall acknowledge that for an innovation district to function properly a horizontal bottom up governance model will apply. Governance will include business, academic and civic institutions, workers, researchers and residents. All parties to partake and contribute time and effort to the collective success. An open source approach and part contribution is expected. This will apply mutatis mutandis to their buildings and spaces and the management thereof.

3.11.Landlords shall design their buildings in accordance with the guidelines provided and overlay design principles that contribute to a mindset and promotes a subconscious state of mind that works for innovation. These include the following on interior and exterior:

3.11.1. Application of the principles of Biophilia. These include plant and animal forms, water, fractal patterns, coherence and legibility and mathematical complexity.

The health of individuals in the environment are to be acknowledged as a result of the complex interaction of the viewer and the environment and has significant impacts on the occupant's health and well-being physically and mentally. These aspects in design to be placed above artistic or "modernist" architectural expressions. The Biophilic concepts are not to be "applied" as a pastiche list of tricks. The principles of Biophilic design to inform a unique sense of place over and above the form giving architectural guidelines and focus on the tactile experience of the building user, this to be achieved. Along the path of progression up to and into the building with a view to calming

Figures 7-8

and visually stimulating the occupant to the level of sparked curosity. This mood changing event contributes to the spirit of uninhibited thought required for innovation.

3.11.2 DIRECT EXPERIENCE OF NATURE IN BUILDINGS

LIGHT: Allowing natural light into spaces from sides and from above. Interplay of lightand shadows and colour of light. Daylight changes experienced inside the building.

AIR: Buildings to have openable sections to allow fresh air and night time flushing.Air humidity, flow, temperature to vary in different areas.

Options include:
- Water bodies
- Minor ponds, fountains, aquaria, wetlands. Clean water faintly heard in motion is most satisfying inside or outside the building. A reference to historic Stellenbosch " leivore" is also to be considered.

WATER: Design to incorporate water, images of water, sound and smell of water.

PLANTS: Vertical green walls, plants at seating areas at eye level within reach, outside plant beds, mini forest for relaxation/path through. Planting to be abundantly applied not as single items except as focal points eg: large tree in a quad.

ANIMALS: Promotion of animal life through provision of trees, bird feeders, insect habitats, aquaria and displays of animals on large indoor video screens eg: at lift entrances.

WEATHER: Allowing inhabitants space and opportunity to experience the weather e.g. sun on skin, rain in a courtyard and mimicking weather conditions inside.

Views to outside, porches, decks, balconies, colonnades, pavilions, gardens etc.

NATURAL LANDSCAPES AND ECOSYSTEMS: Recreation of some indigenous plant life on the site or on accessible roofs. A Savannah like environment, moist and fragrant.

FIRE: For winter time – fireplaces or flame boxes for heating. Fire pit gathering spaces. Indoors and outdoors at seating areas, in gardens etc.

3.11.3 Indirect / "manufactured" experience of nature

- Images of mature: murals/art works
- Natural materials: using wood in structures and finishes, stone etc.
- Natural colours: Colour palette from the local plant life, soils and rocks on the site in addition to the culturally appropriate colour of Stellenbosch white. Stemming from burnt lime wash used as finish for historic dwellings.
- Simulating natural light and air: Where natural light and air cannot penetrate the building, these conditions to be simulated by technology.
- Naturalistic shapes and forms: Inspired by shapes and forms in nature and applied in decorations , double volumes, columns, fenestration and other elements where possible.
- Evoking nature: Acknowledgement of human observation of nature and evolution to want to recognize animalistic forms and faces in surrounds and facades.
- Information richness: level of detailing, order vs. disorder, allowing

Figures 9-10

and purposefully planning surprising breaks in order and utilizing it as incidental gathering spot or view point into the building.
• Age and change: visible in the building, patina change over time to become richer experience.
• Natural geometries: e.g. floor patterning/motifs.

3.11.4 SPACE AND PLACE

PROSPECT AND REFUGE:

Creating spaces that visibly offer the occupant a place linger and experience and take refuge:
• a corner
• a seating spot
• a view line from there
• a back against a wall
• a double volume space to experience
• Sufficient detail to make it worthwhile to look at and admire

ORGANISED COMPLEXITY:

• A grid pattern
• Orchestrated breaks in the pattern on plan, façade and volume providing reason and place to stop and stare/ experience/linger/gather/ create a landmrk.

PARTS LEADS TO WHOLES:

• Pattern of elements contributing to larger collective systems e.g. leaf to tree trunk. Principles applied to facades and progression/assembly of spaces.

MOBILITY:
• Not only in regimented straight lines – visual clues to subconsciously lead the occupant. Landmarks/systems to find the way back/recognize the neighbourhood provided in the facades of buildings or free standing elements eg: walking through mini forest on approach etc.

CULTURAL AND ECOLOGICAL ATTACHMENT TO PLACE:

• Recognizable unique character elements consistent to all built elements in the neighbourhood with reference to History, Biophilic aspects and Green Building Design.

Figures 11-12


OL
STELLENBOSCH
BRIDGE | BHULORHO | BRUG

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK

MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE S

ADDITIONAL MOTIVATION AND PLANS PROVIDED BY THE APPLICANT FOR THE REVISED APPLICATION

AntonLotz
TOWN & REGIONAL PLANNING

P O Box 51799 Waterfront 8002
Cellphone + 27 (0)83 487 7869
Email: alotz@iafrica.com

14 May 2021

Our Ref: 2015 908

PORTION 2 of FARM 744, PAARL: STELLENBOSCH BRIDGE, KLAPMUTS – INDUSTRIAL-RESIDENTIAL INTERFACE & INTEGRATION

In response to the decision of the MPT dated 19 March 2021, please find attached a revised Zoning and Subdivision Plan no 18096-002 Rev F together with a motivation for proposed amendments to address the concerns raised. We have also included a land use and movement network plan, an indicative development plan for the industrial precinct as well as cross-sections to address the matters of integration and the industrial-residential interface.

1. Amended Plan of Subdivision

The revised proposal is for subdivision into 8 portions to accommodate a portion of land adjacent to existing Merchant Street for which application will be made for a future residential development in order to improve the interface between the development and the existing residential areas. As per Zoning and Subdivision Plan no 18096-002 Rev F dated 2021-05-13:

- Subdivision into 8 portions to accommodate:
  - 3 x erven zoned Industrial Zone
  - 2 x erven zoned Public Roads & Parking Zone
  - 1 x erf zoned Transport Facilities Zone
  - 1 x erf zoned Private Open Space Zone
  - 1 x erf zoned Utility Service Zone

Following approval of this application a future application will be launched to rezone the Transport Facilities Zone to an appropriate zone to accommodate a social or affordable housing project as part of the Stellenbosch Bridge development which will be in line with the Municipality's housing policy currently being drafted.

In considering the input of MPT and finalising a revised development concept for this application the following arguments were taken into consideration.

2. Location of Space-extensive Land Uses

The design of the Stellenbosch Bridge project as a mixed-use precinct has focussed on the integration of a variety of land uses both vertically and horizontally to ensure a dynamic and sustainable precinct. Important to the functioning of the Innovation Precinct is the incorporation of clusters of industry that serve the innovation role-players and contribute to a balanced urban eco-system.

As illustrated by the perspective below, in considering the topography of the site, the urban design team identified the more level areas adjacent to the existing town (Farm 744/2) and the railway line to the north to be the best locations for the more space extensive uses of the development including the data centres and larger-scale manufacturing. They considered that by means of design management and landscaping they could manage the interface between the uses.

In addition, it was considered beneficial to locate the manufacturing uses near the labour force already present in Klapmuts, thereby enhancing ease of access and convenience. A technical college site was initially also considered for part of this site, but at the time of conception another site had been identified in Klapmuts for a secondary school, so it was decided to offer more light industrial sites to increase the job opportunities for the community. It was never the intent to use the industrial precinct as a buffer between the existing town and the Stellenbosch Bridge development.

3. Local Land Use and Movement Network

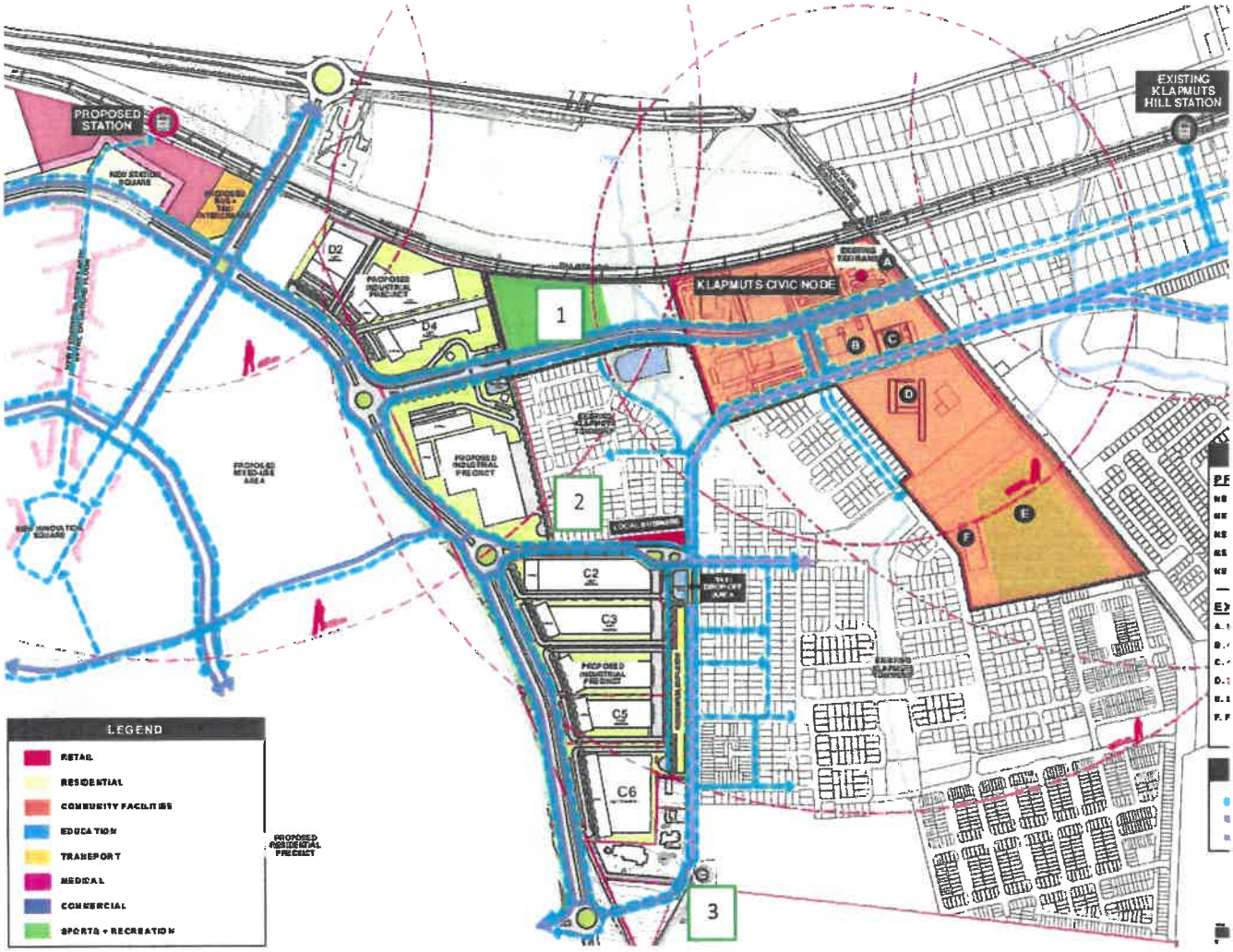
The Klapmuts Land Use and Movement Network Plan illustrates the movement and land use integration envisaged between the Stellenbosch Bridge development and the existing town and in our opinion how the municipal-owned Erf 342 can be used to create a civic node serving the surrounding neighbourhoods. Given the location of the clinic, primary school and taxi rank there is an opportunity to add additional civic functions as well as creating the thresholds for commercial facilities such as shops, serving the surrounding areas and passing trade. Of longer-term benefit will be the east-west link created between the Stellenbosch Bridge station/retail area and allowing convenient pedestrian and NMT movement between the areas.

We have taken into consideration the MPT comments about the limitation of physical linkages between the town and the new development area and have redesigned the industrial precinct to allow a third road link (numbered No 2 in drawing below).

The proposed east/west road is bound by a cycle lane, and a pedestrian sidewalk on both sides. As requested by the Municipality, this link is to be designed to prevent heavy vehicles (above 3.5 tons) from accessing the existing residential streets. This road will be a private road which by means of which the management of heavier vehicles can be controlled. The road will be subdivided when the industrial zoned Portion 2 is subdivided for implementation – the Industrial Zone allows for private road.

The site shown as 'local business' is intended to consist of a small spaza shop or trading stalls serving pedestrians and cyclists employed in the the light industrial estate, as well as circulating between the existing residential neighbourhood and Stellenbosch Bridge.

In total three movement linkages, indicated in the drawing below are provided for, each designed with sufficient space to accommodate pedestrian/NMT usage and ensuring that commercial, employment and social facilities are generally within walking distance (800m) of the surrounding communities.

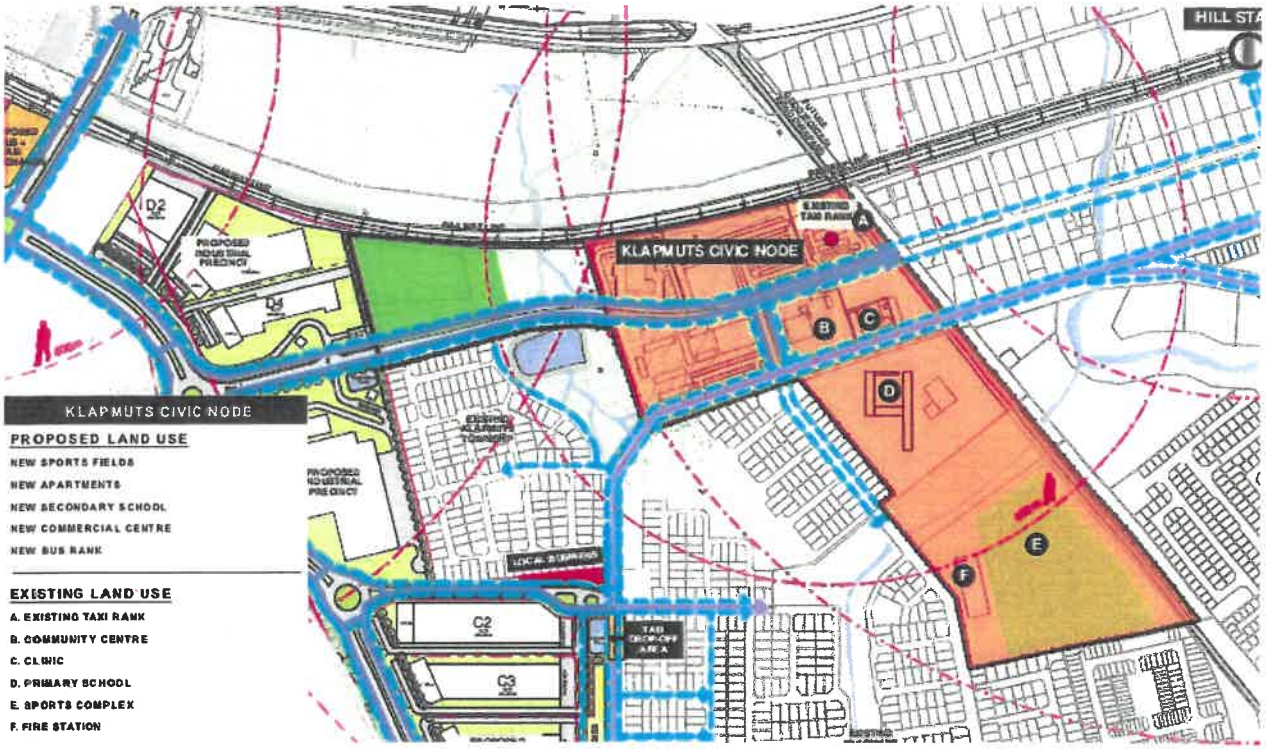


4. Integration of Residential and Local Business

Following the input of the members of the MPT further consideration was given to the interface between the existing residential areas and the industrial precinct. Along the southern section of Merchant Street the opportunity was identified to incorporate a residential strip of walk-up apartments enjoying direct access from Merchant Street and providing a two-storey residential option which can address the raised concern of the missed opportunity of providing a site for affordable or social housing provision as part of the development. As residential rights do not currently form part of the application for this Precinct a separate application will be launched immediately on approval to rezone this site from the proposed Transport Facilities Zone (thereby ensuring that the site cannot be used for industrial as an avoidance of the commitment in future) to Multi-unit Residential and allocate residential rights to this site as part of the development's basket of rights.

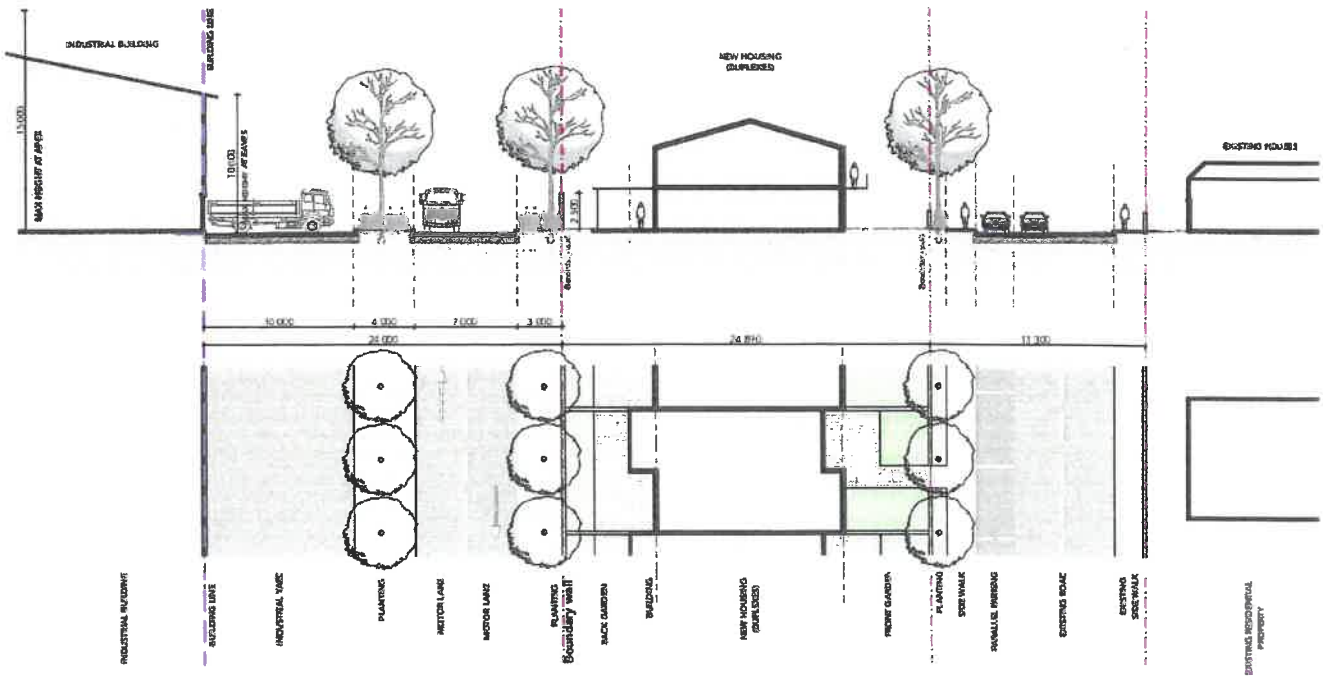
The site was also considered for business use, but we are of the opinion that such as extensive area of business will not be sustainable within this location as the catchment area will be limited to a relatively small area of residents. Even with NMT/pedestrian movement to and from the industrial area it is likely that only limited commercial opportunity will exist, hence the only amenity proposed in the immediate vicinity is the site shown as local business which would probably consist of a spaza shop and/or trading stalls serving pedestrians and the industrial complex workers heading in an east/west direction between the existing residential neighbourhood and Stellenbosch Bridge. Larger retail will require a more central position, hence the proposal of shops adjacent to the Taxi Rank where the local community can access the facility more conveniently and it can benefit from a larger transient market.

The roads in this area will also be better suited to handle the additional traffic. Below is a proposed land-use plan that could unlock the potential of this community node.

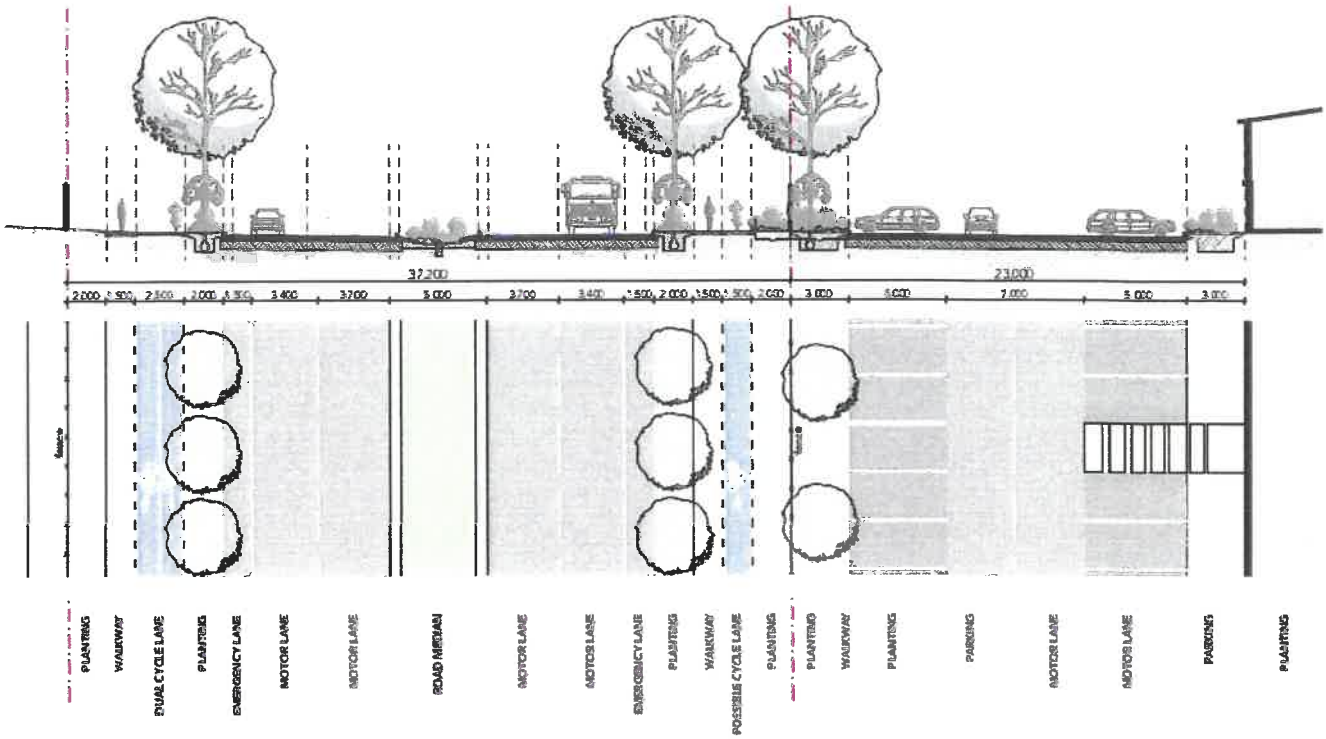


5. Design of Industrial Interface

As per the Draft Site Development Plan, setback lines are proposed to be more restrictive than the 3m permitted by this zone. The design guidelines propose a minimum of 20m which facilitates a larger separation between the residential and industrial buildings. The draft SDP proposes the incorporation of parking/loading areas east of the buildings to create a further setback from the residential units. The design allows for loading to be either from the currently shown back area, or a side area. The specific intent of this design is that the office components of the light industrial businesses face on to the new Klapmuts Hills Road (this will be the tenants main entrance road). The boundary wall of the back area will be bordered by trees to soften the impact to the back of the existing residential units, or the adjacent residential duplexes proposed are show in the section drawing below.



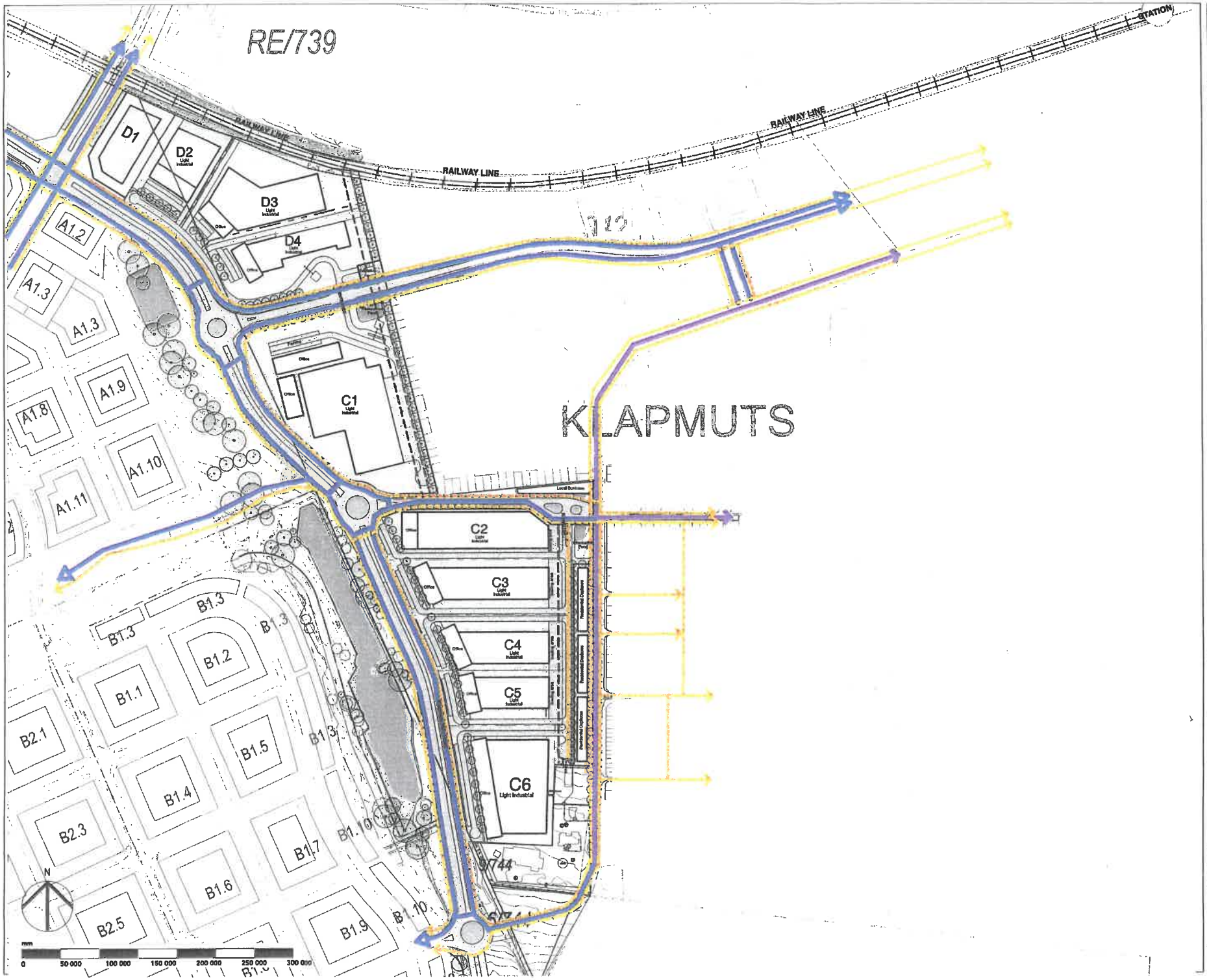
This will ensure that the loading areas are concealed from view of all surrounding public streets. Access to the loading bays / areas of the industrial component should be such that it ensures that the heavy vehicles have easy access to the high order roads only. The intention is to create a pleasant 'face' to the public edges of the small industrial estate, with a transparent boundary fence, complimented by well-maintained lanscaping. From a commercial point of view the (restrained) advertising opportunity of facing onto Klapmuts Hills Road (as indicated in the section drawing below) will enhance the value of the development for potential light industrial tenants/owners.



We trust that the additional detail provided gives assurance that the interface between the industrial and residential uses will be appropriately managed through landscaping and design control and that the additional road link together with the pedestrian and NMT facilities allowed for along all three roads between the development and the existing town will allow sufficient connection for easy access. The incorporation of an affordable/social housing provision and local business opportunities responds to the inputs provided by the MPT and is considered an improvement to the original proposal.

Yours sincerely

Anton Lotz



NOTE

LEGEND

DEDICATED CYCLE PATH

CYCLIST USES STREET

PEDESTRIAN NETWORK

540

PROJECT

ARCHITECT

OL

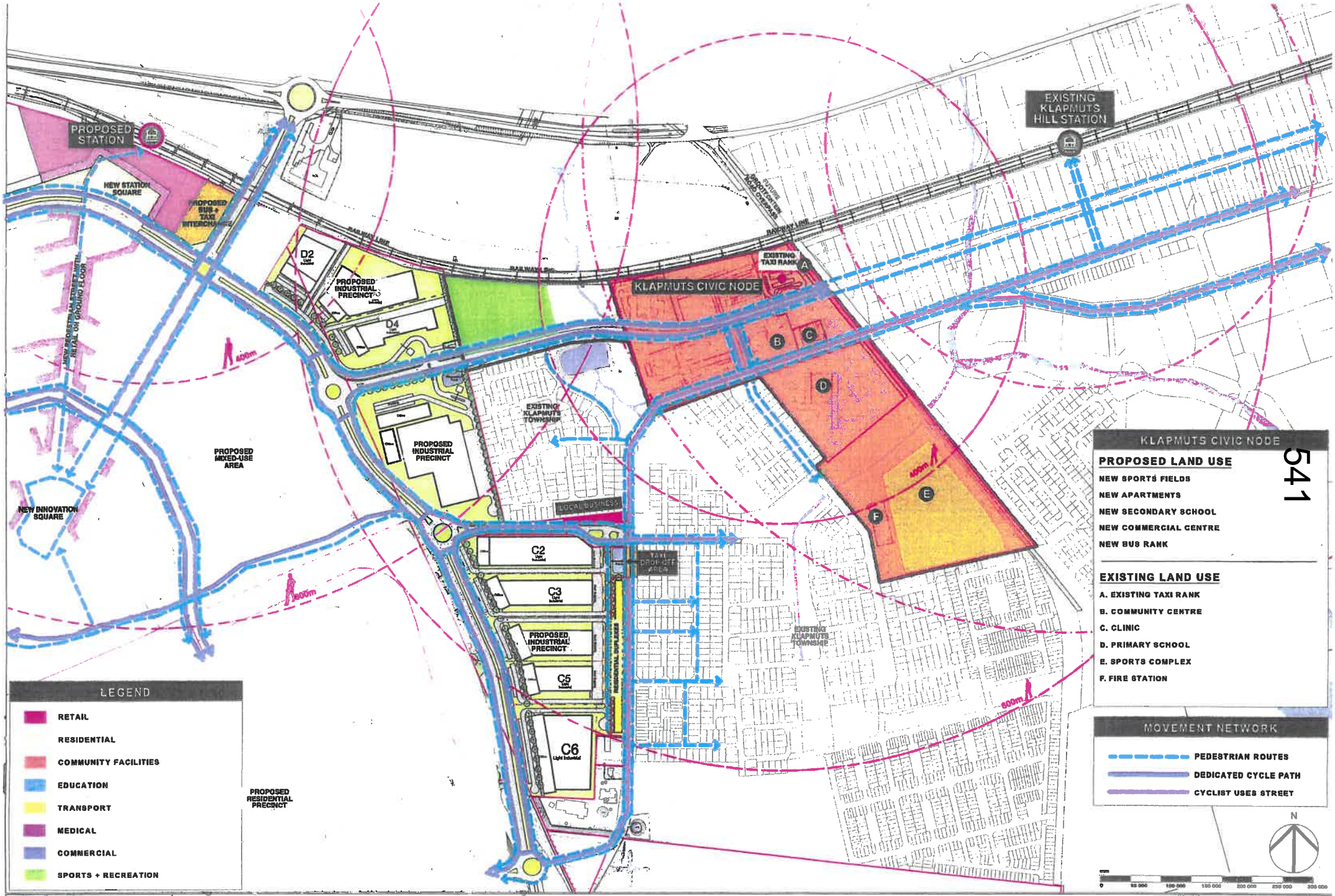
DRAWING TITLE

BUILDING CLASSIFICATION	CLIMATIC ZONE
	RESPONSIBLE PERSON / DATE APPROVED
DESIGN	
DRAWN	

For Information

DRAWING PATH

SCALE	SHEET SIZE
AS INDICATED	A0
1	A



541

ARCHITECTS
Osmond Lange Architects and Planners
Stellenbosch Office

PROJECT:
Stellenbosch Ridge

PROJECT No. | DRAWING NUMBER
J1307

REVISION
-

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ANNEXURE T

DRAFT SITE DEVELOPMENT PLAN (ADDITION INFORMATION)

NOTE

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5. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION.

LEGEND

- 5m Building Line — Height of eaves to be no greater than 4m
- 10m Servitude Line
- 20m Building Line — Height of eaves to be no greater than 10m
- 3m Wide Strip for Planting & Trees

PROJECT
Stellenbosch Bridge
INNOVATION PRECINCT DEVELOPMENT

ARCHITECT
OSMOND LANGE ARCHITECTS AND PLANNERS (PTY) LTD

DRAWING TITLE
Draft Site Development Plan | Portion 2 & 8 of Farm 744_Base Plan

BUILDING CLASSIFICATION	CLIMATIC ZONE
Building Custom	
RESPONSIBLE PERSON	DATE APPROVED
DESIGN GW, TN	2021/04/23

For Information

SCALE: AS INDICATED
SHEET SIZE: A0
PROJECT No. | DRAWING NUMBER: J1307_A_
REVISION: A

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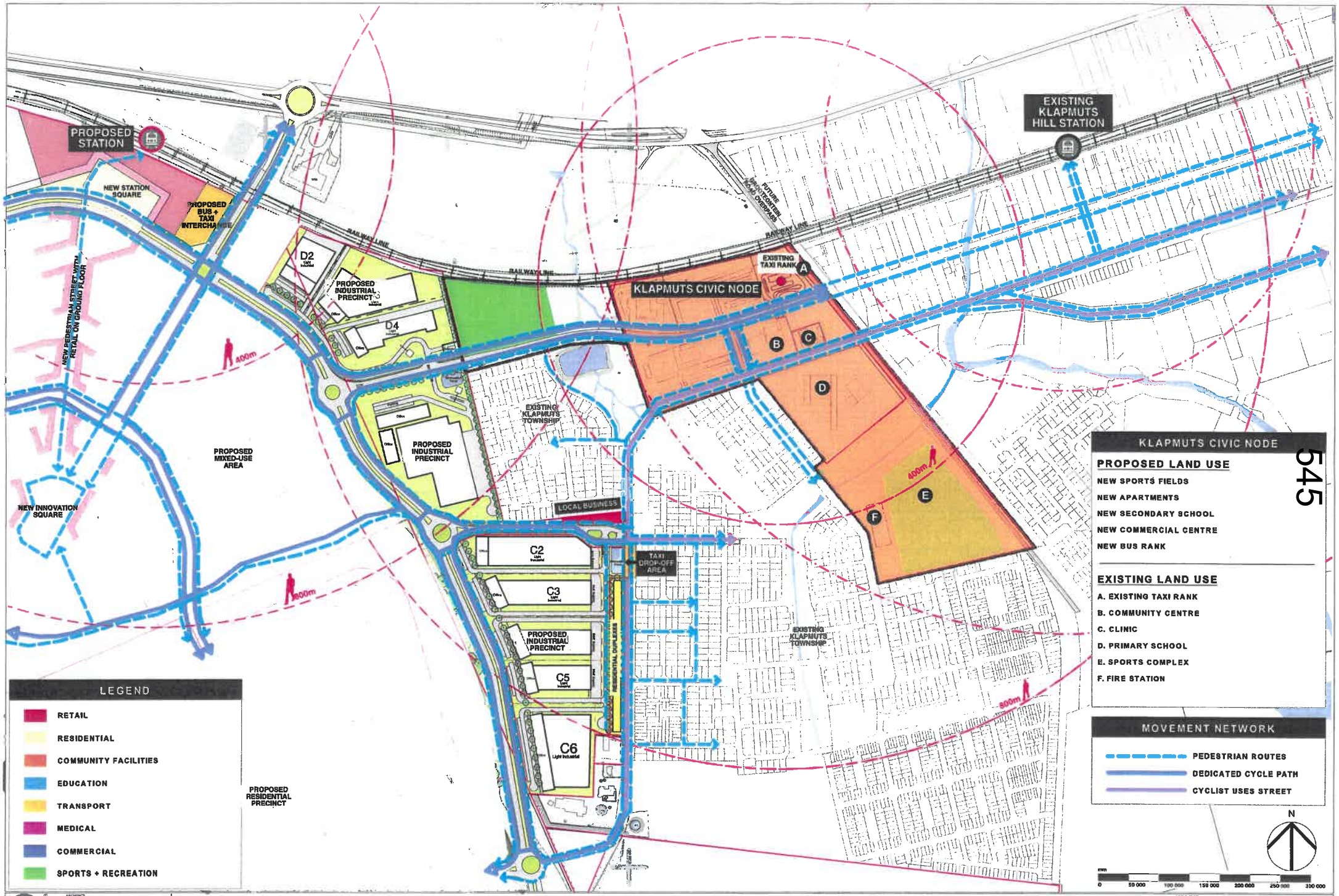
MUNICIPALITY • UMASIPALA • MUNISIPALITEIT

ANNEXURE U

NMT NETWORK PLANS (ADDITION INFORMATION)



545

ARCHITECTS
Osmond Lange Architects and Planners
Melrose Arch

PROJECT
Stellenbosch Bridge

PROJECT No. | DRAWING NUMBER
J1307

REVISION
-

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LEGEND

- DEDICATED CYCLE PATH
- CYCLIST USES STREET
- PEDESTRIAN NETWORK
- 5m Building Line — Height of eaves to be no greater than 4m
- 10m Servitude Line — Height of eaves to be no greater than 4m
- 20m Building Line — Height of eaves to be no greater than 10m
- 3m Wide Strip for Planting & Trees

546

PROJECT
Stellenbosch Bridge
INNOVATION PRECINCT DEVELOPMENT

ARCHITECT
OSMOND LANGE ARCHITECTS AND PLANNERS (PTY) LTD

OL

DRAWING TITLE
Draft Site Development Plan | Portion 2 & 8 of Farm 744_Sections

BUILDING CLASSIFICATION	CLIMATIC ZONE
Custom	
RESPONSIBLE PERSON	DATE APPROVED
DESIGN CM, TN	
DRAWN	

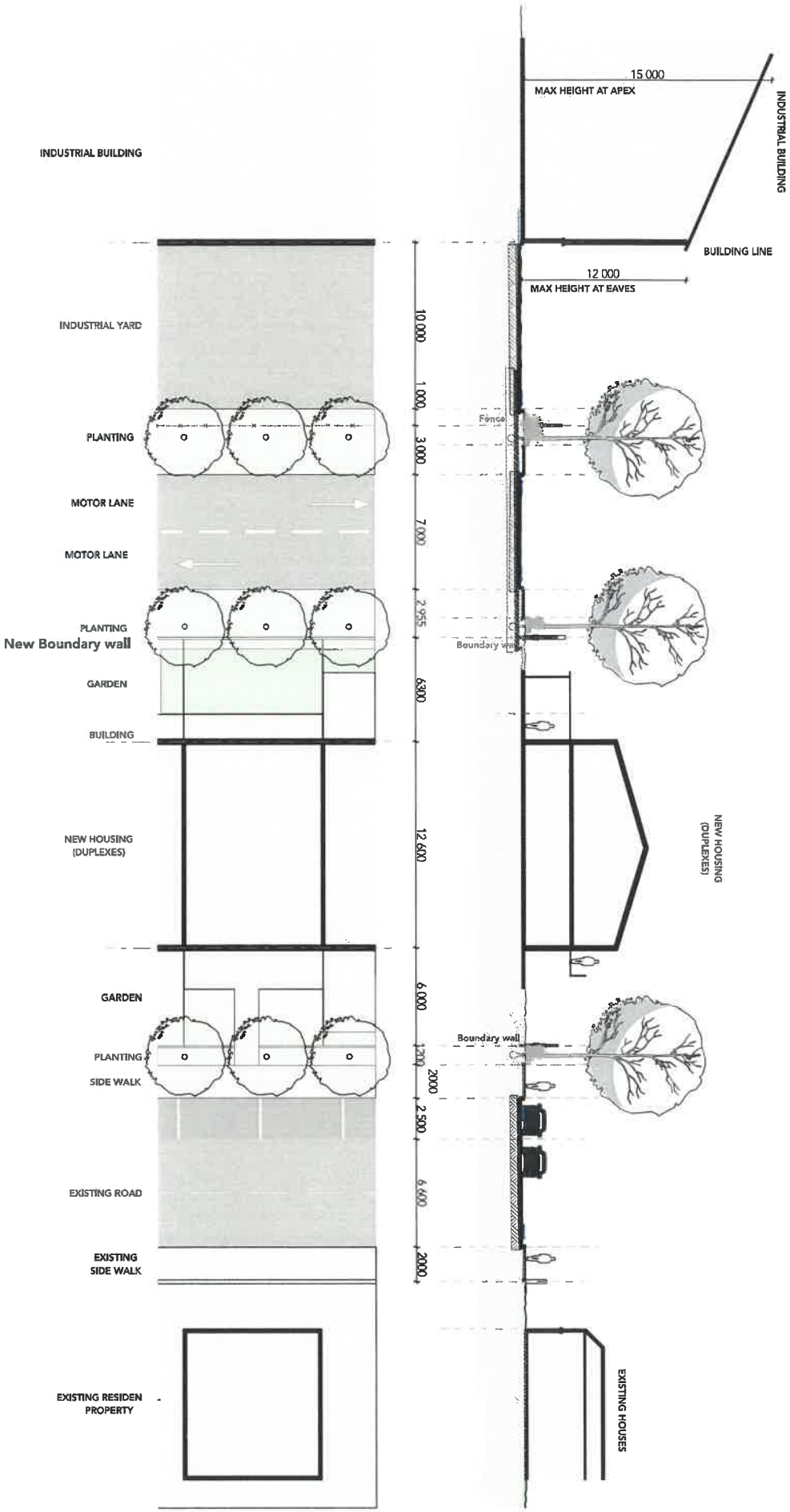
For Information

SCALE	SHEET SIZE
AS INDICATED	A0

PROJECT No. | DRAWING NUMBER: J1307_A_ | REVISION: A

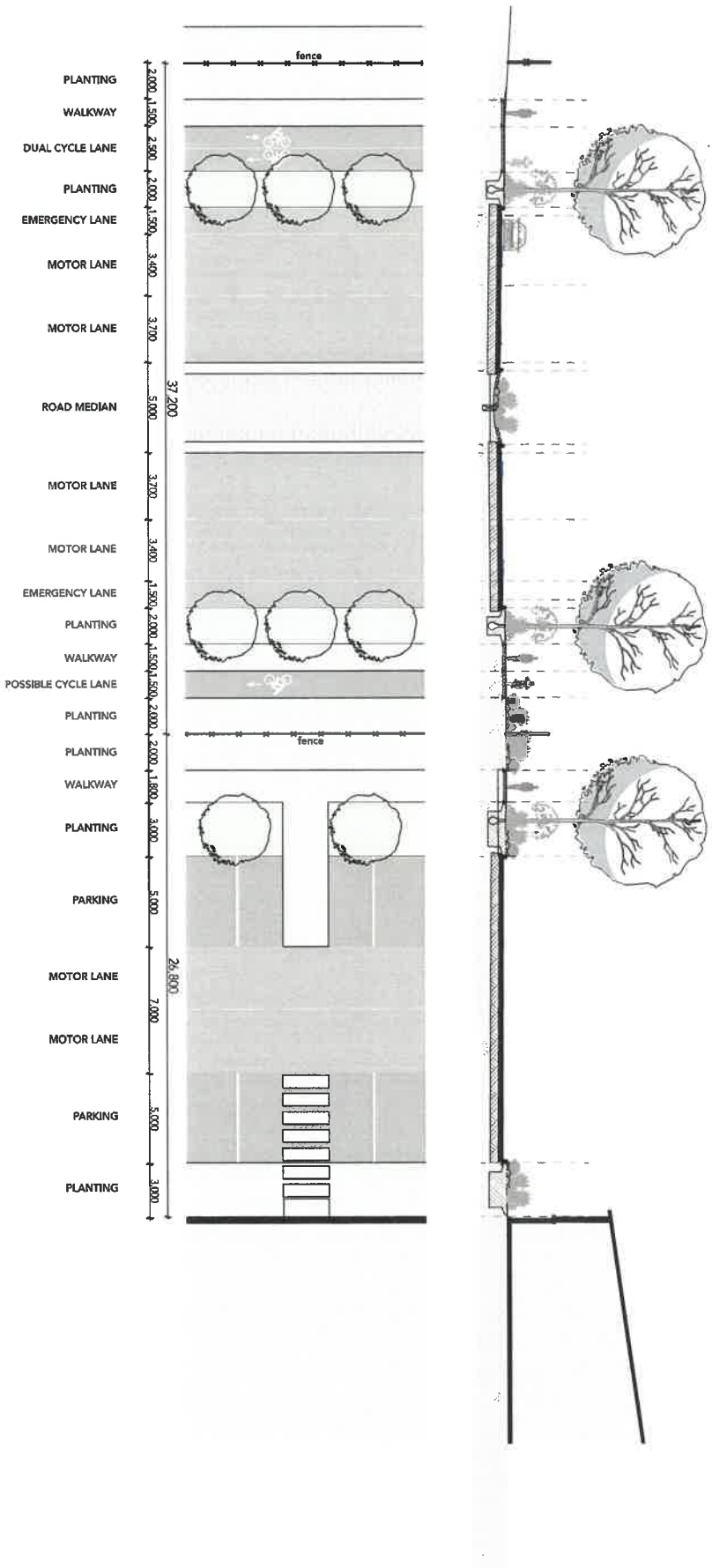
Stellenbosch Bridge

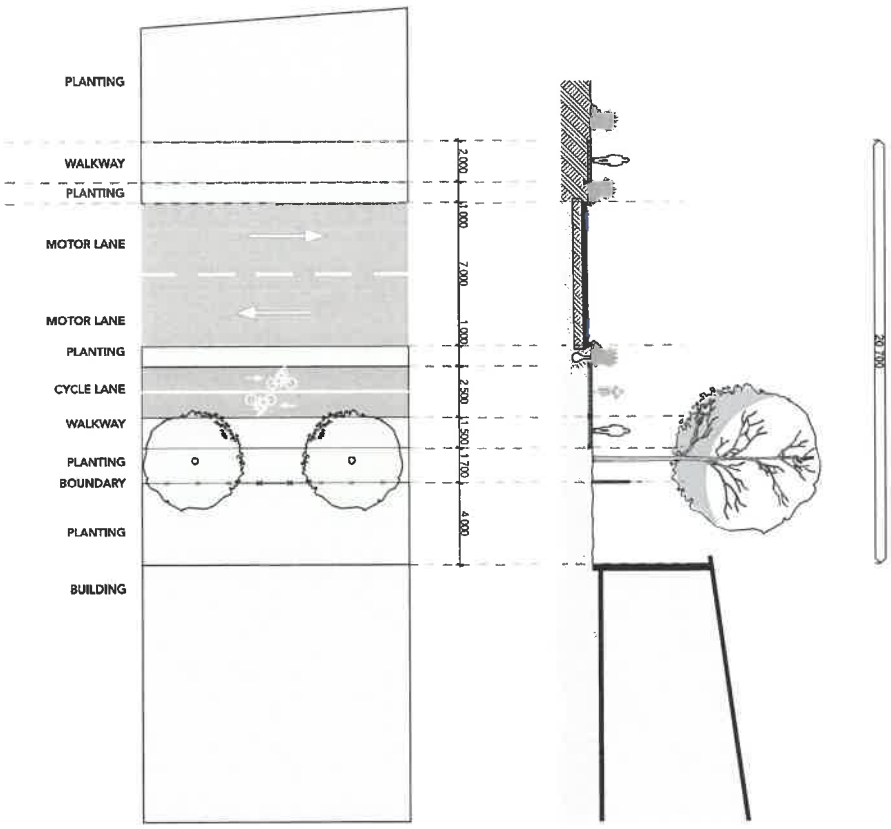
J1307.Stellenbosch Bridge - SECTION 1 | 1:250



Stellenbosch Bridge

J1307.Stellenbosch Bridge - SECTION 2 | 1:250




PLANTING
WALKWAY
PLANTING
MOTOR LANE
MOTOR LANE
PLANTING
CYCLE LANE
WALKWAY
PLANTING
BOUNDARY
PLANTING
BUILDING
2 000
1 000
7 000
1 000
2 500
1 500
1 200
4 000
20 700

Stellenbosch Bridge
J1307.Stellenbosch Bridge - SECTION 4 | 1:250