Adam Tas Corridor

Local Spatial Development Framework

Stellenbosch Municipality

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ACG ARCHITECTS & DEVELOPMENT PLANNERS

Glossary of Abbreviations

ATC -	Adam Tas Corridor
CCG -	Consolidated Capital Grant
CWD -	Cape Winelands District
DAG -	Development Action Group
DEADP -	Department of Environmental Affairs and Development Planning
DF -	Development Framework
DTPW -	Department of Transport and Public Works
GCM RSIF -	Greater Cape Metro Regional Spatial Implementation Framework
GDPR -	Gross Domestic Product per capita (per person)
HRA -	Heritage Resources Act
IDP -	Integrated Development Plan
IUDF -	Integrated urban Development Framework
IZS -	Integrated Zoning Scheme
LSDF (s) -	Local Spatial Development Framework (Frameworks)
LUMS -	Land Use Management System
LUPA -	(Western Cape) Land Use Planning Act
MSDF -	Municipal Spatial Development Framework
MTREF -	Medium Term Revenue and Expenditure Framework
NEMA -	National Environmental Management Act
NDP -	National Development Plan
NGO -	Non-government organisation
NMT -	Non-motorized transport
NSDF -	National Spatial Development Framework
PSDF -	Provincial Spatial Development Framework
PSP -	Western Cape Government Provincial Strategic Plan
PRASA -	Passenger Rail Agency of South Africa
RSEP -	Regional Socio-economic Programme
RZ -	Restructuring Zone
SDF -	Spatial Development Framework
SEIA -	Socio-economic impact assessment
SHI -	Social Housing Institutions
SM -	Stellenbosch Municipality
SOE -	State-owned Enterprise
SPLUMA -	Spatial Planning and Land Use Management Act
STIAS -	Stellenbosch Institute of Advanced Studies
US -	University of Stellenbosch
WCG -	Western Cape Government

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Executive Summary

The ATC LSDF area covers some 375ha, stretching along the R310 and R44 along the foot of Papegaaiberg from the largely disused Cape Sawmills site in the west to Khayamandi and Cloetesville in the north. It forms the western edge to the town but is not well integrated with the rest of Stellenbosch, largely because of the divisive nature of the R44 and the railway line. Much of the area has a manufacturing use history, is underutilized or undergoing the withdrawal of previous activity.

Work to investigate the redevelopment potential of the Adam Tas Corridor (ATC) came from the private and community sectors in Stellenbosch. Following initial discussions, the Western Cape Government, Stellenbosch Municipality, Stellenbosch University, Remgro, Distell, and Stellenbosch Institute for Advanced Study (STIAS) formed an early partnership to support and resource investigations.

The partners believed that if the different landowners, large institutions, government, and communities in Stellenbosch explore, plan, and execute the development of the land together, they could do so in a manner that serves the public interest. In this way, the scale of development achievable will ensure new infrastructure to unlock the area to its full potential.

The initial planning work culminated in a Draft Development Framework early in 2019, aligned the Municipal Spatial Development Framework (MSDF). In 2021, Stellenbosch Municipality appointed service providers to prepare a Local Spatial Development Framework (LSDF) in terms of the provisions of the Spatial Planning and Land Use Management Act (SPLUMA) and the Stellenbosch Land Use Planning By-law 2015. In broad terms work on the LSDF comprises:

- Preparation of a Development Framework or broad spatial plan, describing the preferred mix and distribution of activities, built form, movement system, and associated infrastructure implications for the area to meet project objectives.
- An indication of how to phase development and infrastructure.
- The anticipated economic impact of the development over time.
- How the development rights implied by the LSDF – and associated landowner obligations – will be cemented in law, including the processes to be followed to execute development rights.

The working vision for the ATC envisages an integrated, inclusive environment for living, work, and enjoyment, established as a pro-active partnership between the public, private, and community sectors in response to citizen needs and national, provincial, and municipal policy. It must embody best knowledge of what constitutes good, equitable, and efficient settlement. Spatially, it represents a "new town in town" in Stellenbosch, integrating fragmented parts of the town, using neglected resources, and based on non-motorised and public transport. In the process, the historic and environmental assets of Stellenbosch is respected and expanded.

With the LSDF, municipal approval is sought to incorporate the area as a Local Area Overlay Zone in the Stellenbosch Zoning Scheme By-Law 2018. The Local Area Overlay Zone is the mechanism for cementing the development rights implied by the LSDF in law. The current zoning – largely related to the manufacturing, storage, and distribution of wine and similar products – cannot support dense, mixed-use development.

Based on the common urban regeneration focus, the Local Area Overlay Zone defines specific development parameters related to activities permitted, the nature and form of structures, the detailed planning process, and landowner obligations. As the ATC will develop over time, marked by changes in market conditions and societal needs, planning should be flexible to accommodate change and provide upfront investor security. The proposed draft Local Area Overlay Zone gives security of development rights and flexibility to landowners and streamlined processes seldom encountered in South Africa.

While the Overlay Zone will secure the rights of landowners in perpetuity, it will also spell out the conditions for utilising the rights in broad terms. It is envisaged that agreements between landowners and the Municipality will be concluded, dealing with, among other things:

- Shared responsibility for providing infrastructure services and the phasing of infrastructure, including the extent and use of development contributions.
- Incentives to landowners, including the cost of public land available for development and conditions associated with its development.
- Shared responsibility related to the formation and operation of institutional arrangements established in support of the Adam Tas Corridor Overlay Area.
- Landowner and shared responsibility related to the provision of affordable housing.
- Shared responsibility related to undertaking environmental remediation work.
- Shared responsibility related to the provision and operation of public facilities.

It is envisaged that the bulk allocated to an ATC and its precincts remains "floating" across the area, subject to landowners meeting agreed obligations related to expanding the commons and precinct planning. The transfer of rights happens at the Site Development Planning Stage. Managing the floating of rights and activities over time and space is a balancing act to maintain the overall development intent.

To enable project roll-out, it is believed essential to establish formal project specific institutional arrangements responsible for inter alia:

- Coordination of detailed planning initiatives by the landowners within the framework set by the LSDF, the Adam Tas Corridor Local Area Overlay zone, and associated agreements/ measures.
- Assistance in preparing and monitoring of applications related to the ATC area for decision-making by Stellenbosch Municipality and other statutory bodies.
- Assisting in preparing detailed planning for precincts requiring an active role by the Municipality (e.g., the George Blake area).
- The storage and dissemination of knowledge related to the project on behalf of stakeholders.
- Advocacy, public communication, and fundraising related to the project.

To begin with development within the Development Framework, the landowners will have to work together and with other partners to complete the planning process, supportive institutional arrangements, and the formulation of development conditions. In the best scenario the land owners in partnership with Stellenbosch Municipality and the Western Cape government will form an active partnership to develop the ATC.

Part 1.

Introduction

1. Introduction

1.1. Background

1.1.1. The Task and Team

Following a public tender, the Built Environment Partnership (BEP) was appointed by Stellenbosch Municipality (SM) during January 2021 to prepare a Local Spatial Development Framework (LSDF) for the Adam Tas Corridor (ATC) area.

The purpose of an LSDF is expanded upon in section 4.

To undertake the task, BEP formed a team with the following specialist service providers:

- GAPP: Urban design
- Zutari: Engineering services
- Infinity Environmental: Environmental resource management
- Nicolas Baumann Urban conservation and planning: Heritage and culture
- FTI: Economic impact
- ACG Architects and Development Planners: Landscape architecture

In executing the task, the BEP team worked with a team of officials from SM and advisors from the Western Cape Government (WCG). The BEP team acknowledges the numerous contributions from individuals and organisations in conceptualising the ATC project over a number years. This work is referred to in section 1.2.

1.1.2. The ATC LSDF Area

The ATC LSDF area stretches along the R310 and R44 along the foot of Papegaaiberg from the largely disused Cape Sawmills site in the west to Khayamandi and Cloetesville in the north.

It forms the western edge to the town but is not well integrated with the rest of Stellenbosch, largely because of the divisive nature of the R44 and the railway line. Much of the area has a manufacturing use history. It includes the disused sawmill site, the government owned Droë Dyke area, Distell's Adam Tas facility, Oude Libertas and surrounds, various Remgro property assets, Bosman's Crossing, Oude Molen, the station, Bergkelder complex, Van der Stel sports complex, the George Blake Road area, and Kayamandi south. Large parts of the area are underutilized or undergoing the withdrawal of previous activity.

In addition to the area covered by conceptual work preceding the LSDF, Papegaaiberg has been included as part of the LSDF area – not for detailed study and planning – but because it potentially forms a core element in the structuring of new development opportunity and its integration with existing areas in Stellenbosch.

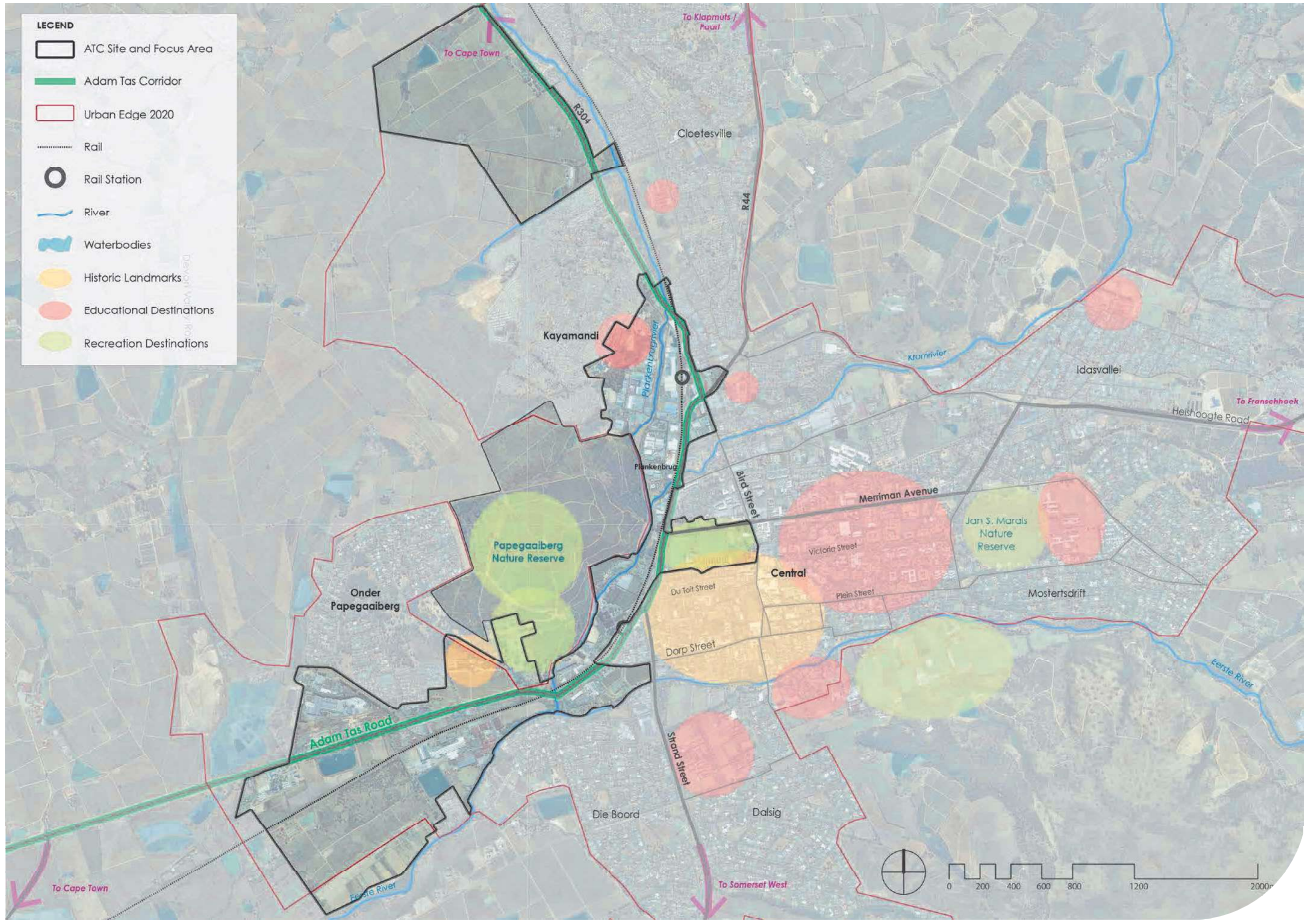


Figure 1. ATC LSDF area map, delineating the corridor focus area and indicating key route and landmarks

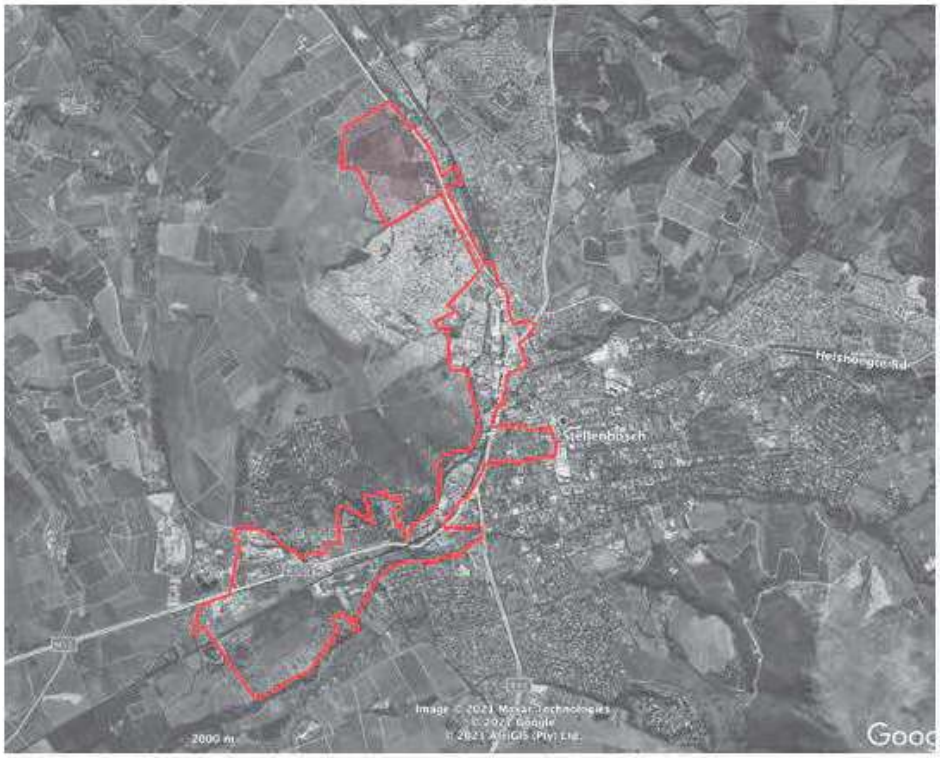


Figure 2. Size comparison of the ATC in relation to other large scale developments such as the V&A Waterfront or Century City

The ATC covers an area of some 375ha, compared to the 120ha of the Victoria & Alfred Waterfront and 250ha of Century City in Cape Town (see Figure 2).

1.1.3. Status of the Project

The ATC project is a catalytic project in the approved SM Municipal Spatial Development Framework (MSDF) and Integrated Development Plan (IDP). The project also has the support of the WCG and is included as a focus area in the WCG's Regional Socio-economic Programme (RSEP). The University of Stellenbosch (US), Stellenbosch Institute for Advanced Study (STIAS), Remgro, and Distell have also supported the project through draft memoranda of agreement and actively providing financial and other support to previous work undertaken for the ATC.

1.2. Previous Work Undertaken for the ATC

1.2.1. History of the Project

Work to investigate the redevelopment potential of the ATC area started a number of years ago. The idea came from the private sector. One local resident, entrepreneur, and philanthropist – Hannes van Zyl – in particular worked to advocate and resource pre-feasibility investigations. Early conceptual planning work – and discussions with key landowners – was enabled by Kelvin Campbell, an internationally acclaimed urbanist attached to STIAS at the time.

Following very extensive discussions with key stakeholders an initial partnership was formed between the WCG, SM, US, Remgro, Distell, and STIAS to support and resource investigations. The partners agreed that, following tradition and the norm, it is possible for individual landowners in the area to "go it alone", to alienate land no longer needed for their purposes, or attempt profitable development for alternative uses. However, it was believed that much is to be gained if the different landowners, large institutions, government, and communities in Stellenbosch explore, plan, and

execute development of the land together, in a manner which best serves the public interest. Only in this way is a scale of development achievable which will ensure affordability of required infrastructure to unlock the area to its full potential, and to achieve a full range of activities and benefits, including the highly profitable, ones requiring subsidisation, the large and the small. It is an opportunity similar in potential scope and impact over generations to the establishment of the university, the Rupert-initiated drive to save and sustain historic precincts and places, and the declaration of core nature areas for preservation.

This work culminated in the release of a Draft Development Framework and associated testing of infrastructure services and economic impact early in 2019[1]. As a new MSDF for Stellenbosch was under preparation at the time, initial work on the ATC was closely aligned with that on the MSDF, ensuring integration between higher and lower order planning.

The project was given impetus with Distell's decision to secure more appropriately located and configured land – meeting current-day manufacturing and logistics requirements – for the gradual relocation and consolidation of many of its operations, dispersed through the metropolitan region and also located in central Stellenbosch (at, for example, Bergkelder). Suitable land was found in Klapmuts, an event which made exploring alternative uses for land to be vacated, and its broader use for a range of urban activities, becoming "real" and urgent.

From the start, the ATC was aimed at achieving agreed national, provincial, and local settlement development and management objectives, as also interpreted and stated in the SM MSDF and SM IDP. This includes the aim to grow the economy and protect finite environmental resources through establishing compact, well-connected, vibrant, and sustainable communities, where residents move around efficiently, and have access to a range of development and livelihood opportunities.

In as much as the exploration of what is possible in the ATC area is aligned with agreed policy, it is important that the work also be integrated in the legal system for development and land use management. With this in mind, the SM initiated the ATC LSDF process, ensuring that land planning for the ATC will be undertaken in compliance with agreed legal processes and regulations.

1.2.2. Draft Development Framework

The 2019 Draft Development Framework and associated work indicated the following:

- It is possible to achieve a development of some 3 million m² of bulk, including 13 500 housing opportunities.
- Integration between the ATC and main town will require bridging at selected points.
- Bulk infrastructure required to service the development can be provided within the cost envelope provided for in development contributions.
- Bulk infrastructure requirements provide a relatively clear understanding of how development can be phased over time.
- The inhibitive current zoning of most of the area provides government with the means to negotiate development with significant public benefits.
- Based on precedent studies, the ATC will have a significant positive impact on economic development and job creation in Stellenbosch and the Western Cape.

Since completion of the work, further investigation and discussion has revealed a need to explore inter alia:

- A clearer definition of precincts to overlap with landownership as far as possible (given that landowners will probably be responsible for preparing more detailed precinct level plans).
- The inclusion of Papegaaiberg as part of the main structure of Stellenbosch town and the opportunity to increase access to the reserve through the development.
- The extent of affordable housing that could be provided as part of the development.
- A clearer definition of phasing of development (and specifically the link between development and specific bulk infrastructure investments required to support development)
- The Land Use Management System (LUMS) required to support development.

1.3. ODA Work on the ATC Process and Institutional Management

Towards the end of 2019, following on the pre-feasibility work, finalization of the concept ATC Development Framework and its testing for engineering and macro-economic impact, ODA – appointed by the project partners - undertook bi-lateral discussions with the main partners with a view to frame recommendations on the governance and management of the development process going forward[2].

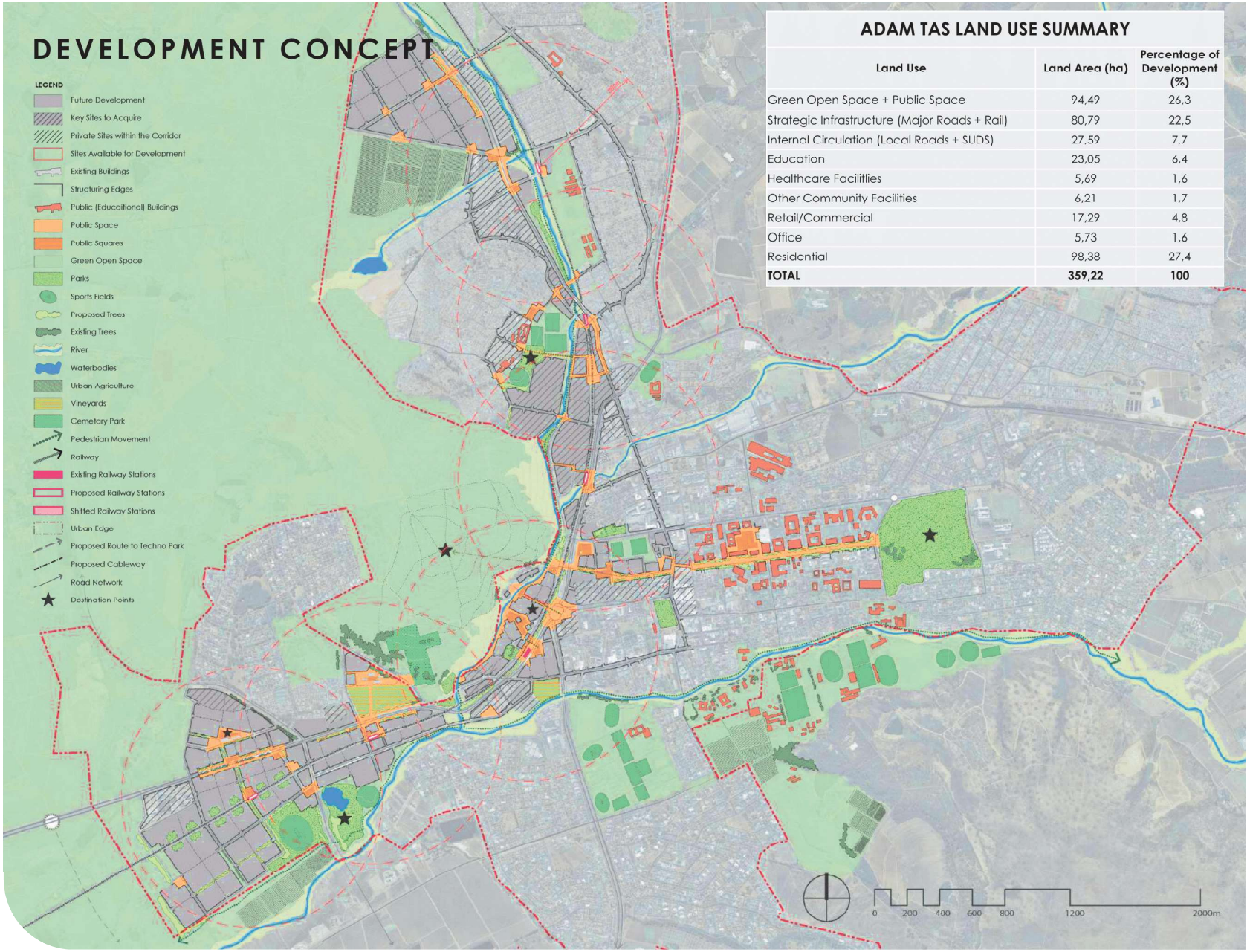
ODA's report contains a summary of the main issues and proposals emanating from the bi-lateral engagements, a framework for reflecting on the project at the time, a framework for mapping the way forward, a high-level model for governing and managing the ATC development process, and recommended immediate next steps.

ODA summarised the main proposals emanating from the bilateral discussions as:

- Bring other significant role players onboard (e.g., the landowners of Oude Molen).

1 As part of assessing the work, a peer review was undertaken during April 2019 with recognised experts in the field of large urban change projects in South Africa, including Messrs David Jack, Peter de Tolly, and Rod Lloyd.

2 Adam Tas Corridor Development Process: Report on the bi-lateral engagements held during Oct/Nov 2019 with recommendations on the governance and management of the development process going forward, 2019 (unpublished report by ODA)



ADAM TAS LAND USE SUMMARY

Land Use	Land Area (ha)	Percentage of Development (%)
Green Open Space + Public Space	94,49	26,3
Strategic Infrastructure (Major Roads + Rail)	80,79	22,5
Internal Circulation (Local Roads + SUDS)	27,59	7,7
Education	23,05	6,4
Healthcare Facilities	5,69	1,6
Other Community Facilities	6,21	1,7
Retail/Commercial	17,29	4,8
Office	5,73	1,6
Residential	98,38	27,4
TOTAL	**359,22**	**100**

Figure 3. Draft Development Framework from 2019

- Determine process management requirements and devise an equitable funding arrangement.
- Make innovation and learning an integral part of the process.
- Create a neutral space for reflection and problem solving.
- Explore appropriate mechanisms for community beneficiation.
- Build Municipal capacity to deliver the required statutory frameworks.
- Identify a package of catalytic or lead projects.
- Conclude the pre-feasibility phase by issuing a prospectus or information memorandum.

The consultant's framework for moving the process forward highlights the following main issues for consideration:

- The need to invest in the development of a compelling, long term and co-owned vision/ future state for the town and its environs in order to guide the unfolding of the spatial concept for the ATC in a holistic and integrated manner.
- The need for the main landowners and key stakeholders to establish interim and final phase governance and management arrangements that will enable the formulation of joint proposals to the relevant authorities and the taking of timely collective decisions on matters of common interest.
- The need to reintroduce the role of a high value independent third party such as STIAS to facilitate access to research, innovation and learning and to provide a space for retreat and reflection as and when required.
- The need to consider the appointment (for an initial period of ± 18 months) of an experienced Process Coordinator who can establish process management architecture proposed in this report and can drive the delivery of the critical inputs, (e.g., beneficiation framework, affordable housing model, urban mobility framework, long-term vision development, etc.), in the desired time frames.
- The need to resolve the beneficiation model and framework of duties and obligations on which the allocation of additional land use rights will be premised.
- The need to consider the role of innovation and learning from international best practice in designing the future of the corridor, the town and its environs.
- The need to conclude the work undertaken during the conceptual phase and to enter the planning and mobilisation phase with due consideration of the risks involved in the, to be anticipated, ''crisis of complexity''.

The report concludes with the proposal of an interim governance and management arrangement and outlines the final phase governance and management arrangement in accordance with which the main private landowners should organise themselves in order to produce the collective proposals, decisions and undertakings that will be required by the planning authority for the allocation and management of additional land use rights.

The spatial planning related proposals related to the ODA recommendations have largely been incorporated into the current LSDF assignment. ODA's institutional proposals are addressed in section 8.2.8 under Implementation Framework.

1.4. Case Studies

During 2020, as part of a STIAS fellowship opportunity focused on the ATC project, Stephen Boshoff – a member of the team prepared the Draft Development Framework and practitioner at BEP – explored case studies which may benefit a review of work undertaken to date and further roll-out of the ATC project.

In-depth case studies were undertaken of the Cambridge North-west development, Victoria & Alfred Waterfront, the regeneration of the Poblenou district in Barcelona (22@barcelona), and the transformation of Bilbao. Specific aspects of other urban development projects were also explored. A common basis for analysing case studies was established by combining two well-known and documented frameworks for planning and analysing organisation or transformational change, the one focused on stepped transformational change and the other related to key factors affecting the ability of an organisation to achieve change steps.

Key conclusions drawn from the analysis – presented as 21 propositions – are summarised in Appendix A.

1.5. The ATC Project and Covid-19

Covid-19 unfolded in parallel to the tender process for preparing the ATC LSDF. Expectedly, at the time, the impact of the virus on the project was raised in various discussions related to project roll-out. Some suggested that both public and private sector resources will be curtailed to such an extent through its focus on covid-related related matters that the project will be seriously inhibited.

The alternative argument is that – despite its devastating impact – Covid-19 has assisted in making a case for the ATC project. In some ways, impact of Covid-19 has and will be one of foreshortening future scenarios of need in Stellenbosch; the Covid-19 Stellenbosch of today and the one emerging is perhaps one where the future is experienced without having addressed critical past challenges fully. It is one of a deepening need for housing and livelihood opportunity, including jobs, education, and the recognition of various forms of cultural expression. Deepening crime and other forms of social malaise is likely. There will certainly be increased pressure on public and private resources (whether those of most institutions or individual households).

In other words, the *underlying reasons* for embarking on the ATC project remain, and in many ways are becoming more pronounced through Covid-19, and more in need of concerted attention.

Part 2.

Legislative Context

2. Legislative Context

2.1. Key Legislation

Section 156 of the **Constitution of the Republic of South Africa 1996**, grants municipalities constitutional executive and administrative authority over matters listed in Part B of Schedule 4 and Part B of Schedule 5, as well as any other matter assigned to it by national or provincial legislation. Part B of Schedule 4 includes "municipal planning" (not defined but which the Constitutional Court has stated assumes a "well-established meaning which includes the zoning of land and the establishments of townships" and "the control and regulation of land"). National and provincial governments have legislative and executive authority to regulate the exercise by municipalities of their executive authority over Part B of Schedule 4 and Part B of Schedule 5.

Chapter Two of the Constitution contains the **Bill of Rights**, a charter that protects the civil, political, socio-economic, and environmental rights of all people in South Africa. The rights in the Bill apply to all law and bind all spheres of the government.

The **Municipal Systems Act, 32 of 2000** (MSA) first introduced the concept of a Spatial Development Framework (SDF) as a component of the mandatory Integrated Development Plan (IDP) that every municipality must adopt to govern its allocation of resources. Chapter 5 of the Act deals with integrated development planning and provides the legislative framework for the compilation and adaption of IDPs by municipalities. Within the chapter, Section 26(e) specifically requires an Municipal SDF (MSDF) as a mandatory component of the municipal IDP.

With the enactment of the **Spatial Planning and Land Use Management Act 16 of 2013** (SPLUMA), a new planning regime was introduced in South Africa. It replaced disparate apartheid era laws with a coherent legislative system as the foundation for all spatial planning and land use management activities in South Africa. It seeks to promote consistency and uniformity in procedures and decision-making. Other objectives include addressing historical spatial imbalances and the integration of the principles of sustainable development into land use and planning regulatory tools and legislative instruments.

In broad terms, SPLUMA differentiates between two components of the planning system:

- Spatial planning (traditionally also referred to as "forward planning").
- The Land Use Management System (LUMS).

MSDFs reflects a municipality's spatial planning for the municipal area while LSDFs would reflect planning for a specific part of a municipal area. MSDFs and LSDFs are guiding and informing documents that indicate the desired spatial form and define strategies and policies to achieve this. They inform and guide the LUMS, which includes town planning or zoning schemes, allocating development rights, and the procedures and processes for maintaining the maintenance of or changes in development rights. MSDFs and LSDFs also inform sector plans (e.g., specific plans for transport or housing) and the municipality's capital investment framework (indicating where and how the municipality will allocate financial resources over the medium to longer term).

MSDFs and LSDFs are not rigid or prescriptive plans that predetermine or try to deal with all eventualities or sets out complete land use and development parameters for every land portion or cadastral entity. They should, however, contain sufficient clarity and direction to provide guidance to land use management decisions while still allowing some flexibility and discretion. SDFs need to distinguish between critical non-negotiables and fixes, and what can be left to more detailed studies. They should be based on normative principles including performance principles that form the basis of monitoring and evaluation of impacts.

Similar to SPLUMA, the **National Environmental Management Act, Act 107 of 1998** (NEMA), is identified as "framework legislation", intended to define overarching and generally applicable principles to guide related legislation as well as all activities integral to environmental management. Its broad purpose is to provide for co-operative environmental governance by establishing principles for decision-making on matters effecting the environment, institutions that will promote co-operative governance and procedures for coordinating environmental functions exercised by organs of the state, provide for certain aspects of the administration and enforcement of other environmental management laws, and related matters.

NEMA is critical in so far as the issues of environmental sustainability, resilience to climate change, and wise use of the natural resource base, are key to the current and future socio-economic wellbeing of residents in the municipal area. This is especially so because of the fact that sectors such as agriculture and tourism, which all rely to a great extent on the natural assets of the area, remain of great importance to the local economy and are likely to do so in future. In this regard, the National Environmental Management Principles are important and are to be applied in tandem with the development principles set out in SPLUMA. It is also notable that both SPLUMA and NEMA provide for an integrated and coordinated approach towards managing land use and land development processes.

The **National Heritage Resources Act (HRA), Act 25 of 1999**, provides for general principles, norms, and standards governing heritage resources management throughout the Republic and an integrated system for the identification, assessment and management of the heritage resources, including the protection and management of conservation-worthy places and areas by local authorities.

Provincial and municipal laws likewise provide for broad land use planning powers serving the public interest. The **Western Cape Land Use Planning Act (LUPA) 3 of 2014** provides that "municipalities are responsible for land use planning" and that "[a] municipality must regulate . . . the development, adoption, amendment and review of a zoning scheme for the municipal area." Municipalities also must regulate the imposition of conditions of approval for land use applications. The purpose of the zoning scheme is to "make provision for orderly development and the welfare of the community" and determine use rights and development parameters with due consideration to LUPA's principles.

The **Stellenbosch Municipality Land Use Planning By-law of 2015** applies to all land situated within the Stellenbosch Municipal area, and sets out the planning instruments, processes, and institutional arrangements for exercising its authority as provided for in the Constitution, SPLUMA, and LUPA.

The **Stellenbosch Municipality Zoning Scheme By-Law 2018** describes the lawful uses of land in the municipal area in detail, as well as associated regulations related to exercising use rights and the control of the use of land.

2.2. The Broad Objectives and Mandate of Planning Legislation

The South African planning and land use law is broad in its objectives and mandate, including its use to meet agreed societal objectives.

A recent study published by the Development Action Group (DAG) observes that the South African planning and land use regulatory regime is recognised as "empowering municipalities to significantly restrict the use of property in a non-arbitrary manner, even where the value of the property is diminished, while still protecting property owners' rights to use and enjoy their property in a reasonable manner."[3] Albeit the study focuses on inclusionary housing, the focus of broad objectives sought through planning and land use instruments include matters beyond housing such as the environment, infrastructure provision, public facilities, and so on.

The Bill of Rights states inter alia that the state must take reasonable legislative and other measures, within its available resources, to foster conditions which enable citizens to gain access to land on an equitable basis. In its preamble and principles, SPLUMA specifically acknowledges the spatial planning legacy of racial inequality and segregation in the South African planning regime, the need to strive to meet the basic needs of previously disadvantaged, and the recognition of the right to housing, which includes equitable spatial patterns. Its stated objectives include that planning and land use management promotes social and economic inclusion as well as redress of imbalances of the past and to ensure equity in the application of planning and land use management requirements.

With the above in mind, the DAG report holds inter alia that:

- The Constitution enshrines normative rights, and affirmative obligations by the state to achieve those rights.
- The Constitution's grant of municipal authority over municipal planning provides municipalities with a tool to legitimately direct the law towards furthering the inclusionary principles regarding housing and access to land.
- Constitutional Court decisions to date acknowledge and support the Constitution's deference towards redress of past and present injustice, suggesting that applicable laws would be interpreted to allow for planning requirements that seek to address inequality and segregation.

In exercising their authority – and again with specific reference to inclusionary housing – the DAG report recommends that:

- Municipalities must implement and administer this broader use of planning and land use regulations to enable matters such as inclusionary housing through its local land use management scheme and/ or land use approval process in conformance with SPLUMA.
- To avoid challenges based on arbitrariness and/ or lack of procedural justice, municipalities need to develop policies to guide their inclusionary housing requirements and amend their local bylaws to give legal effect to these policies. Practices of imposing ad-hoc mandatory inclusionary housing conditions through land-use approvals, ad hoc adjustment or restriction of unused development rights, or providing inclusionary housing requirements only through policy without more formal changes to municipal planning bylaws and spatial development frameworks, present a higher risk of invalidation based on the current requirements under SPLUMA, and constitutional requirements.
- Where new, previously un-enjoyed rights are granted under a land use regime, there is less of a question of whether limitation of those new rights constitute an infringement on private property rights. In contrast, where rights enjoyed by private landowners under an existing land use regime are curtailed in order to enable their re-allocation conditioned on compliance with inclusionary housing requirements, the impact on the existing use and enjoyment of property is more obviously impacted.

The DAG report is more tentative in its findings as to whether the planning and land use regulatory regime provides for an in-lieu fee option to enable inclusionary housing. DAG takes the position that the best justification for in-lieu fees – under the current law – is as a "functional equivalent" of an inclusionary housing requirement, although to their knowledge this legal theory has not been directly tested in South African courts.

3 Legal Aspects of Inclusionary Housing in South Africa, 2020. The work emanates from the 3-year National Land Value Capture Programme, launcehed in 2020 by a tripartite partnership between DAG, the Lincoln Institute of Land Policy, and the National Treasury's Cities Support Programme (CSP) and aimed at strengthening the capability of metropolitan governments to efficiently and effectively implement innovative Land Value Capture tools and strategies.

Part 3.

Policy and Planning Context

3. Policy and Planning Context

Numerous integrated and sector specific policy frameworks and plans – ranging in spatial reach from the national to the local – impact on the ATC LSDF. The paragraphs below highlight key frameworks and plans, with a view to identify key themes to be considered in preparing the LSDF.

3.1. The 2030 National Development Plan (NDP), 2012

The NDP is an all-encompassing national development plan grounded in the tenets of the Constitution and Bill of Rights. It addresses the varied needs and challenges facing the country, the underlying causes of challenges and factors inhibiting change; and provides detailed guidance on responding to all of these.

Importantly, the NDP recognises that overcoming our triple challenges of inequality, unemployment and poverty will require, inter alia, transforming our physical space. There is a need to disrupt and undo inherited and persisting colonial and apartheid economic, social and spatial investment logics, and the resultant spatial forms and land-use patterns which impede inclusive sustainable human development.

Of particular relevance for the ATC LSDF are the recommendations set out in Chapter 8 of the NDP – Transforming Human Settlements and the National Space Economy – including the upgrading of all informal settlements on suitable, well-located land, increasing urban densities to support public transport and reduce sprawl, promoting mixed housing strategies and compact urban development in close proximity to services and livelihood opportunities, and investing in public transport infrastructure and systems (with a special focus on commuter rail) to ensure more affordable, safe, reliable and coordinated public transport.

Following on from this NDP guidance, government prepared policy and legislation that gives further expression to Chapter 8 of the NDP. These include the 2016 Integrated Urban Development Framework (IUDF) and SPLUMA (detailed in the section on legal context).

3.2. The Integrated Urban Development Framework (IUDF), 2016

The IUDF builds on the NDP, notably Chapter 8. It establishes a guiding vision for settlement development and management in South Africa of "liveable, safe, resource-efficient cities and towns that are socially integrated, economically inclusive and globally competitive, where residents actively participate in urban life".

The IUDF puts forward a "new deal" for South Africa's cities and towns – ranging from the very large metropolitan regions to the smallest towns in rural areas – focused on maximising the potential of urban areas, and integrating planning, budgeting and investment in such a way that it improves and enhances urban structure and form in a manner serving sustainable human development.

The IUDF defined four strategic goals for all urban areas – spatial integration, inclusion and access, growth, and governance – supported by nine "policy levers" to achieve the goals: integrated urban planning and management, integrated transport and mobility, integrated and sustainable human settlements, integrated urban infrastructure, efficient land governance and management, inclusive economic development, empowered active communities, effective urban governance, and sustainable finances. The active participation of a range of stakeholders, including all three spheres of government – across sectors – the private sector, NGOs, NPOs and local community organisations, is recognised as a prerequisite in implementing the policy goals of the IUDF.

3.3. The Draft National Spatial Development Framework (NSDF) 2020

The NSDF follows on the IUDF and SPLUMA's call for spatial plans across scales of space, from national to local. Among the outcomes sought by the NSDF is "a network of consolidated, transformed and well-connected national urban nodes, regional development anchors, and development corridors that enable South Africa to derive maximum transformative benefit from urbanisation, urban living and inclusive economic development."

The NSDF emphasises that settlement development in South Africa must be undertaken in such a way that it increases development density, reduces urban sprawl, prevents the unsustainable use of productive land, and optimises investment in infrastructure networks.

In terms of the NSDF, broader Cape Town, Gauteng and eThekwini are regarded as a national urban regions, where urbanisation should be consolidated in "compact, productive, sustainable, inclusive and well-governed urban core regions."

3.4. Western Cape Government Provincial Strategic Plan (PSP) 2019-2024

The PSP sets out the Western Cape Government's vision and strategic priorities. The PSP vision and strategic priorities are illustrated in diagram …

In relation to mobility and spatial transformation, the PSP envisages that "residents live in well-connected, vibrant, and sustainable communities and move around efficiently on safe, affordable, low-carbon public transport".

Diagram 1. The Western Cape Government PSP vision and strategic priorities (WCG, 2020)

Through more mixed-use, mixed-income neighbourhoods and sustainable densification of economic centres, the average time, cost, and distance of commuting is reduced, and through leveraging provincial and municipal investments in infrastructure, human settlements, spaces, and services, communities can be healed, connected, integrated, and transformed our while reducing the vulnerability to climate change. Neighbourhoods should become safe places of equal opportunity, dignity and belonging.

The PSP recognises that distance to economic opportunity and social services carries both direct and indirect costs, and disproportionately so for the poor and vulnerable. It is recognised that South African cities are generally limited in achieving their economic potential – known as "reaping the urban dividend". This is due to their low densities, inverted spatial form, mono-functional land use patterns, and spatial poverty traps.

Four focus areas are identified for achieving mobility and spatial transformation:

1. Create better linkages between places through safe, efficient and affordable public transport.
2. Establishing Inclusive places of opportunity.
3. Enabling more opportunities for people to live in better locations.
4. Improving the places where people live.

3.5. The Provincial Spatial Development Framework (PSDF) 2014

The PSDF sets out to:

- Address the lingering spatial inequalities that persist because of apartheid's legacy – inequalities that contribute both to current challenges (lack of jobs and skills, education and poverty, and unsustainable settlement patterns and resource use) and to future challenges (climate change, municipal fiscal stress, food insecurity, and water deficits).
- Provide a shared spatial development vision for both the public and private sectors and to guide to all sectoral considerations about space and place.
- Direct the location and form of public investment and to influence other investment decisions by establishing a coherent and logical spatial investment framework.

The spatial agenda advocated by the PSDF is summarised in diagram 1. The PSDF sets out the key strategic spatial transitions required to achieve a more sustainable use of provincial assets, the opening-up of opportunities in the space-economy and the development of integrated and sustainable settlements. These are summarised in tables 1 and 2.

The PSDF includes a composite map which graphically portrays the Western Cape's spatial agenda. In line with the Provincial spatial policies, the map shows what land use activities are suitable in different landscapes and highlights where efforts should be focused to grow the Provincial economy. For the agglomeration of urban activity, the Cape Metro functional region, which includes the Stellenbosch Municipality, as well as the emerging regional centres of the Greater Saldanha functional region and the George/ Mossel Bay functional region, is prioritised.

Table 1. The key PSDF Transitions

PSDF THEME	FROM	TO
Resources and Assets (Bio-Physical Environment)	Mainly curative interventions	More preventative interventions
	Resource consumptive living	Sustainable living technologies
	Reactive protection of natural, scenic and agricultural resources	Proactive management of resources as social, economic and environmental assets
Opportunities in the Space Economy (Socio-Economic Environment)	Fragmented planning and management of economic infrastructure	Spatially aligned infrastructure planning, prioritisation and investment
	Limited economic opportunities	Variety of livelihood and income opportunities
	Unbalanced rural and urban space economies	Balanced urban and rural space economies built around green and information technologies
Integrated and Sustainable Settlements (Built Environment)	Suburban approaches to settlement	Urban approaches to settlement
	Emphasis on 'greenfields' development and low density sprawl	Emphasis on 'brownfields' development
	Low density sprawl	Increased densities in appropriate locations aligned with resources and space-economy
	Segregated land use activities	Integration of complementary land uses
	Car dependent neighbourhoods and private mobility focus	Public transport orientation and walkable neighbourhoods
	Poor quality public spaces	High quality public spaces
	Fragmented, isolated and inefficient community facilities	Integrated, clustered and well located community facilities
	Focus on private property rights and developer led growth	Balancing private and public property rights and increased public direction on growth
	Exclusionary land markets and top-down delivery	Inclusionary land markets and partnerships with beneficiaries in delivery
	Limited tenure options and standardised housing types	Diverse tenure options and wider range of housing typologies
	Delivering finished houses through large contracts and public finance and with standard levels of service	Progressive housing improvements and incremental development through public, private and community finance with differentiated levels of service

Table 2. The PSDF Spatial Agenda

Focus	What it Involves
GROWING THE WESTERN CAPE ECONOMY IN PARTNERSHIP WITH THE PRIVATE SECTOR, NON-GOVERNMENTAL AND COMMUNITY BASED ORGANISATIONS	• Targeting public investment into the main driver of the Provincial economy (i.e. the Cape Metro functional region, the emerging Saldanha Bay/ Vredenburg and George/ Mossel Bay regional industrial centres, and the Overstrand and Southern Cape leisure and tourism regions). • Managing urban growth pressures to ensure more efficient, equitable and sustainable spatial performance. • Aligning, and coordinating public investments and leveraging private sector and community investment to restructure dysfunctional human settlements. • Supporting municipalities in managing urban informality, making urban land markets work for the poor, broadening access to accommodation options, and improving living conditions. • Promoting an urban rather than suburban approach to settlement development (i.e. diversification, integration and intensification of land uses). • Boosting land reform and rural development, securing the agricultural economy and the vulnerability of farm residents, and diversifying rural livelihood and income earning opportunities.
USING INFRASTRUCTURE INVESTMENT AS PRIMARY LEVER TO BRING ABOUT THE REQUIRED URBAN AND RURAL SPATIAL TRANSITIONS	• Aligning infrastructure, transport and spatial planning, the prioritisation of investment and on the ground delivery. • Using public transport and ICT networks to connect markets and communities. • Transitioning to sustainable technologies, as set out in the WCIF. • Maintaining existing infrastructure.
IMPROVING OVERSIGHT OF THE SUSTAINABLE USE OF THE WESTERN CAPE'S SPATIAL ASSETS	• Safeguarding the biodiversity network and functionality of ecosystem services, a prerequisite for a sustainable future. • Prudent use of the Western Cape's precious land, water and agricultural resources, all of which underpin the regional economy. • Safeguarding and celebrating the Western Cape's unique cultural, scenic and coastal resources, on which the tourism economy depends. • Understanding the spatial implications of known risks (e.g. climate change and its economic impact, sea level rise associated with extreme climatic events) and introducing risk mitigation and/or adaptation measures.

3.6. The Greater Cape Metro Regional Spatial Implementation Framework (GCM RSIF) 2017

The Greater Cape Metro (GCM) Regional Spatial Implementation Framework (RSIF), completed in 2017, aims to build consensus between the spheres of government and state-owned companies on what spatial outcomes the GCM should strive for, where in space these should take place, and how they should be configured. The GCM covers the municipal jurisdictions of Cape Town, Saldanha Bay, Swartland, Drakenstein, Stellenbosch, Breede Valley, Theewaterskloof, and Overstrand.

The regional settlement concept proposed by the GCM RSIF is built on the following key tenets:

- Containing settlement footprints by curtailing the further development of peripheral dormitory housing projects.
- Targeting built environment investments within regional centres, specifically in nodes of high accessibility and economic opportunity.
- Targeting these locations for public and private residential investment, especially rental housing, to allow for maximum mobility between centres within the affordable housing sector.
- Using infrastructure assets (specifically key movement routes) as "drivers" of economic development and job creation.
- Promoting regeneration and urban upgrading within strategic economic centres as well as high-population townships across the functional region.
- Shifting to more urban forms of development within town centres including higher densities and urban format social facilities.
- Connecting these nodes within an efficient and flexible regional public transport and freight network.
- Maintaining valuable agricultural and nature assets.

In terms of role and function, Paarl and Wellington is designated as the Northern Winelands service, administrative, tertiary education, agri-processing and distribution, and tourist centre, with very high/ high growth potential. Stellenbosch is designated as the Southern Winelands service, administrative, tertiary education and research, and agri-processing centre, as well as home to multi-national enterprise headquarters, a key tourism destination, and focus for technology industry, with very high growth potential.

3.7. Regional Socio-Economic Programme (RSEP) 2014

The RSEP is an intergovernmental programme of the WCG. The primary goal of the programme is urban upgrading and renewal focusing on previously disadvantaged neighbourhoods through pro-poor and social upliftment interventions and to address the legacies of spatial segregation in South Africa.

This is done by implementing physical projects that will have an immediate impact and demonstrate "what can be done" in order for municipalities to mainstream this directive in their normal day-to-day work and future planning initiatives and budgeting processes. In addition, non-physical projects are also undertaken (e.g., precinct planning, urban design, and facilitating partnerships and collaboration).

The programme also aims to promote a "whole-of-society" approach which envisions provincial and local government partnering with active citizens, communities and stakeholders to promote social and economic inclusion; and furthermore, to establish a "whole-of-government" approach to enhance planning-led budgeting through coordinated multi-sector spending in the province. The programme is therefore focused on bringing together a range of stakeholders, both

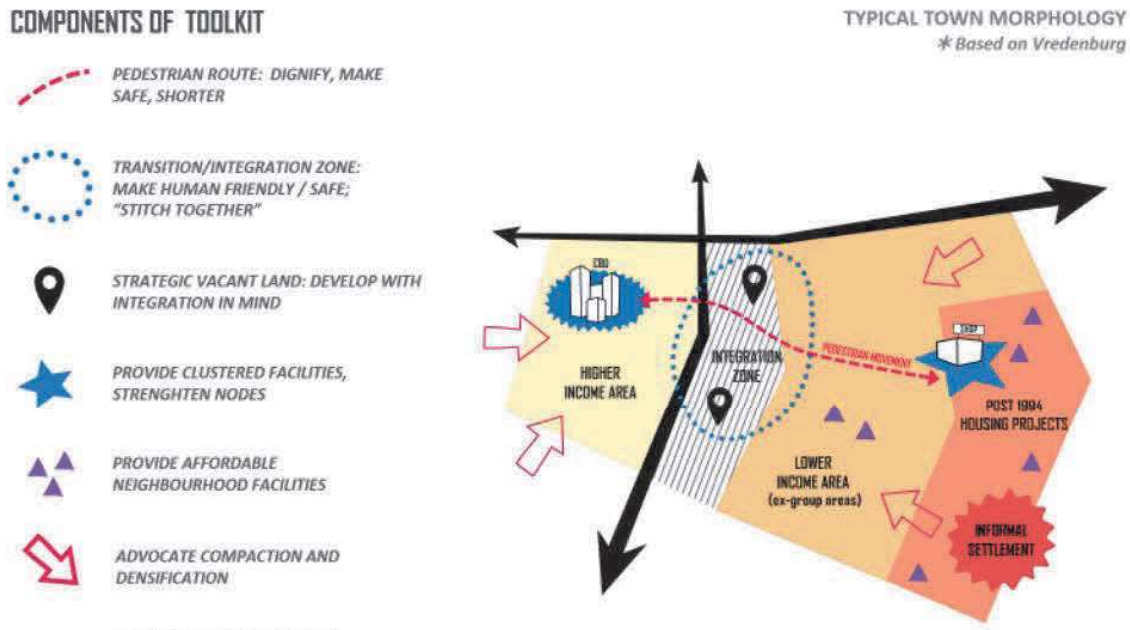


Diagram 2. RSEP Reconstruction Framework (WCG)

local, provincial, national and private, in order to achieve effective and efficient joint planning and implementation at the local level and to improve quality of life of citizens and in communities.

One of the key deliverables developed by the RSEP to be utilized and implemented as a new directive by the municipalities, is a "Reconstruction Framework" for their towns, which can be used as a "toolkit" for upgrading and integration. The framework comprises of a model that investigates the town structure in terms of the impact of apartheid planning, post-apartheid housing developments and the current location of poor communities and their relationship and interaction with the rest of the town. It is aligned to a number of policies such as the IUDF, the NDP and the PSDF.

The RSEP Reconstruction Framework aligns with National Treasury's Urban Network Strategy, which attempts to align and crowd-in public spending and unlock private investment in order to re-stitch fragmented spatial forms through catalytic interventions. Components of the framework include:

- Transition/ integration zones.
- Strategic vacant or underutilised land.
- Government facilities.
- Neighbourhood facilities and public spaces.
- Satellite nodes.
- Clustered social facilities/hubs.
- Pedestrian routes and movement patterns.

The Reconstruction Framework and its components is illustrated in diagram 2.

SM is one of the new local municipalities participating in Phase 2 of the RSEP Programme. Three projects have been identified for Stellenbosch, the construction of Cloetesville outdoor gym and playpark, the formalisation of the taxi rank and LED market stalls in the Kayamandi/ Stellenbosch integration zone and co-funding for further detailed planning of the ATC.

Table 3. IDP Strategic Focus Areas and the MSDF

IDP STRATEGIC FOCUS AREA	LSDF DIRECTION
Valley of possibility	• Containment of settlements to protect nature/ agricultural areas and enable public and non-motorized transport and movement. • A focus on public and non-motorized transport and movement.
Green and sustainable valley	• Protection of nature areas, agricultural areas, and river corridors.
Safe valley	• Denser settlements with diverse activity to ensure surveillance.
Dignified living	• A specific focus on the needs of "ordinary" citizens, experiencing limited access to opportunity because of restricted available material resources.
Good governance and compliance	• Presenting information, including opportunities and choices in a manner that assists its internalization by all.

3.8. The Stellenbosch Municipality Integrated Development Plan (IDP)

The SM Integrated Development Plan 2017-2022 (IDP) is aimed at coordinating the efforts of various municipal departments in achieving the vision for the municipality as a "valley of opportunity and innovation". Efforts to achieve this vision are channelled into five specific focus areas:

- Valley of possibility – aimed at attracting investment, growing the economy and employment.
- Green and sustainable valley – aimed at ensuring that the asset base of the municipality is protected and enhanced.
- Safe Valley – aimed at ensuring that its residents are and feel safe.
- Dignified living – aimed at improving conditions for residents through access to education and economic opportunities.
- Good governance – aimed at ensuring that municipality is managed efficiently and effectively to the benefit of all stakeholders.

Budget expenditure is closely linked to these focus areas and achieving these outcomes.

Table 3 illustrates how spatial planning in the LSDF can contribute, in terms of its focus and contribution, to achieving the aims articulated for each strategic focus area.

3.9. The Stellenbosch Municipal Spatial Development Framework (MSDF), 2019

The MSDF is a statement of public policy that seeks to influence the overall spatial distribution and form of land use, associated infrastructure, public facilities within the Municipal area to give effect to the vision, goals and objectives of the Municipal Integrated Development Plan (IDP).

Prepared in terms of SPLUMA, it attempts to answer the following questions: "How should the municipal area develop over the next five to thirty years to meet the needs of its citizens? What kind of development will take place, where will it take place, and who will be responsible for what aspect of the development?"

This focus is important. Future growth, expansion and innovation cannot be allowed to unfold in haphazard ways as this is likely to result in expensive outward low-density sprawl of housing and commercial areas and the related destruction of valuable eco-system and agricultural resources. This kind of development is also likely to exacerbate spatial divisions and exclude citizens with lesser materials resources from opportunity to live in proximity to work, commercial opportunity, and social facilities.

Ad hoc development removes the certainty that everyone needs to make long-term investment decisions, including municipal leadership – planning for associated infrastructure – and key players like the property developers, financial investors, development planners, municipal officials dealing with associated approval processes, and ordinary households.

In more detail, the MSDF aims to:

- Enable a vision for the future of the municipal area based on evidence, local distinctiveness, and community derived objectives.
- Translate this vision into a set of policies, priorities, programmes, and land allocations together with the public sector resources to deliver them.
- Create a framework for private investment and regeneration that promotes economic, environmental, and social well-being.
- Coordinate and deliver the public-sector components of this vision with other agencies and processes to ensure implementation.

The concept for the MSDF comprises seven key tenets:

1. Maintain and grow our natural assets: Critical biodiversity areas, valuable land areas (including agricultural land), land affecting the maintenance of water resources, and so on, cannot be built upon extensively, it cannot be the focus for significantly accommodating existing or future settlement need spatially.
2. Respect and grow our cultural heritage: The areas and spaces – built and unbuilt – that embody the cultural heritage and opportunity of Stellenbosch Municipality needs to be preserved and exposed further. Some areas and spaces need to be maintained intact, others provide the opportunity for new activity, in turn exposing and enabling new expressions of culture.
3. Direct growth to areas of lesser natural and cultural significance as well as movement opportunity: Within areas of lesser natural and cultural significance, the focus should be on areas where different modes of transport intersect, specifically places where people on foot – or using nonmotorized transport – can readily engage with public transport.
4. Clarify and respect the different roles and functions of settlements: The role and potentials of different settlements in Stellenbosch require clarification. In broad terms, the role of a settlement is determined by its relationship to natural and cultural assets and the capacity of existing infrastructure to accommodate change and growth.
5. Clarify and respect the roles and functions of different elements of movement structure: Ensure a balanced approach to transport in SM, appropriately serving regional mobility needs and local level accessibility improvements, aligned with the spatial concept.
6. Ensure balanced, sustainable communities: Ensure that all settlements are balanced and sustainable, providing for different groups, maintaining minimal development footprints, walkability, and so on.
7. Focus collective energy on critical lead projects: Harness available energy and resources to focus on a few catalytic areas that offer extensive opportunity fastest and address present risk.

The overall plan indicates a municipal area largely set aside as protected and managed areas of nature and high value agricultural land. These areas of nature and agriculture are critical in delivering various ecological and economic services and opportunity. Significant change in use and land development is not envisaged in the nature and agricultural areas. Only non-consumptive activities are permitted (for example, passive outdoor recreation and tourism, traditional ceremonies, research and environmental education) in core nature areas. In agricultural areas, associated building structures are permitted, as well as dwelling units to support rural tourism, and ancillary rural activities that serves to diversify farm income.

A hierarchy of settlements, large and small – each with distinctive characteristics and potentials – and linked through a system of routes, is set in this landscape. Both open areas of nature and agriculture and parts of settlements and the routes that connect them, carry strong historic and cultural values, and contribute significantly to the tourism economy.

While all settlements continually undergo change and require change to improve livelihood opportunity and convenience for existing residents, not all are envisaged to accommodate significant growth. Those envisaged to accommodate both larger scale change and significant growth are situated on the Baden Powell Drive-Adam Tas-R304 corridor. Further, given the railway running on this corridor, the opportunity for settlement closely related to public transport exists here. The corridor is in not proposed as a continuous development strip. Rather it is to comprise contained, walkable settlements surrounded by nature and agriculture, linked via different transport modes, with the rail line as backbone.

The largest of these settlements, where significant development over the short to medium term is foreseen, are the towns of Stellenbosch and

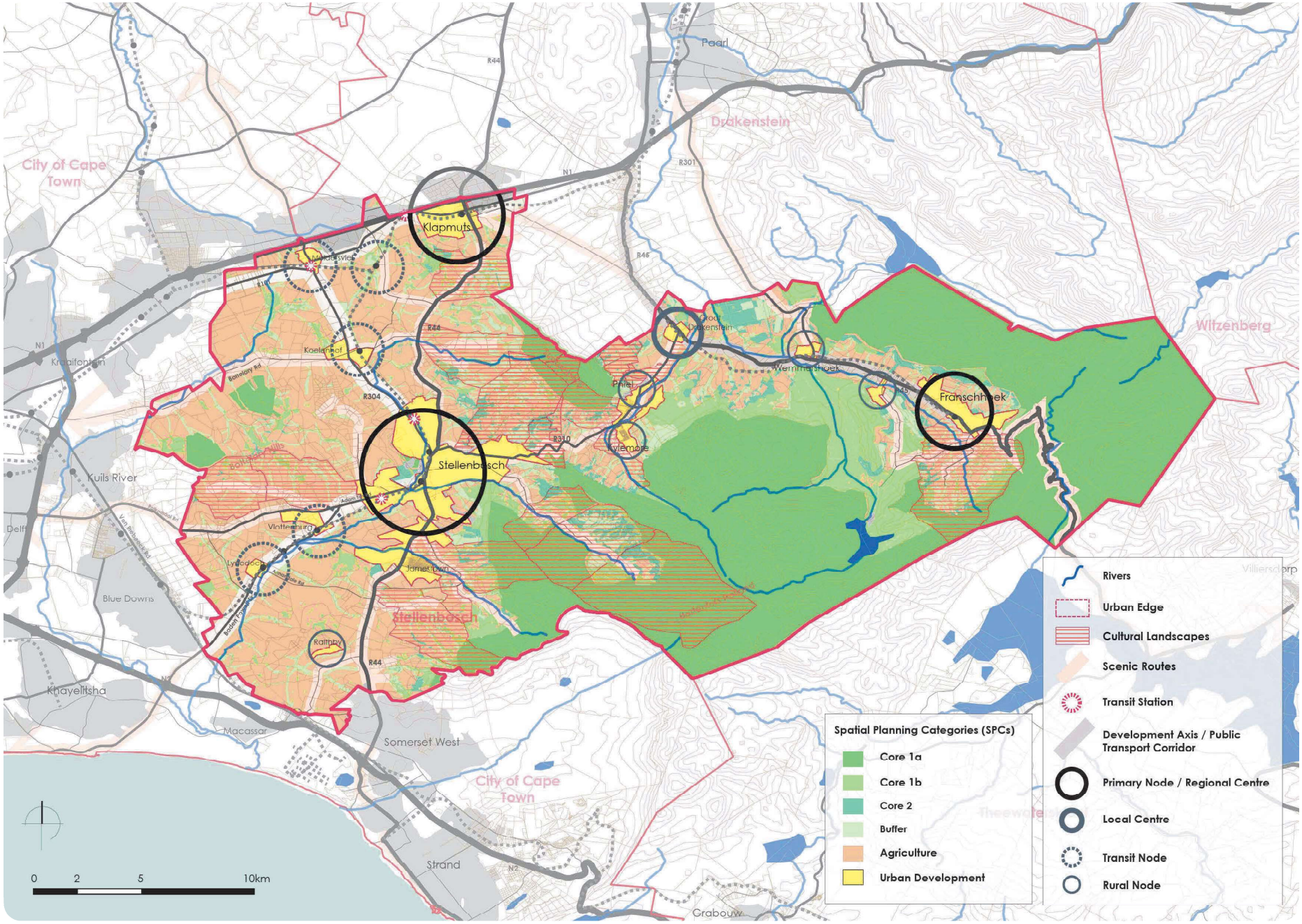


Figure 4. The Stellenbosch MSDF Plan (Stellenbosch Municipality, 2019)

Klapmuts. The potential of Klapmuts for economic development and associated housing is particularly significant, located as it is on the metropolitan area's major freight route. Over the longer term, the Muldersvlei/ Koelenhof and Vlottenburg/ Lynedoch areas can potentially develop into significant settlements. Although considerably smaller than Stellenbosch and Klapmuts, these expanded settlements are nevertheless envisaged as balanced, inclusive communities. Over the longer term, these expanded settlements are foreseen to fulfil a role in containing the sprawl of Stellenbosch town, threatening valuable nature and agricultural areas. Importantly, they should not grow significantly unless parallel public transport arrangements can be provided.

The remainder of settlements are not proposed for major growth, primarily because they are not associated with movement routes and other opportunity than can support substantial livelihood opportunity for all community groups. The focus in these settlements should be on on-going improvements to livelihood opportunity for residents, and the management of services and places. The largest of these settlements is Franschhoek, a significant tourism destination.

Stellenbosch town will remain the major settlement within the municipality; a significant centre comprising extensive education, commercial and government services with a reach both locally and beyond the borders of the municipality, tourism attractions, places of residence, and associated community facilities.

Retaining what is special in Stellenbosch town requires change. The town has grown significantly as a place of study, work, and tourism, while perhaps inadequately providing residential opportunity for all groups, and certainly lacking adequate provision of public transport and NMT options. Managing residential growth of the town, through providing more inclusive housing at higher densities than the norm, is vital. This can and must bring significant reductions in commuting by private vehicles to and within Stellenbosch town, and provide the preconditions for sustainable public transport and NMT to and within the town.

The most significant redevelopment opportunity within Stellenbosch town is the ATC, stretching from the Droë Dyke and the Old Sawmill sites in the west along Adam Tas Road and the railway line, to Kayamandi, the R304, and Cloetesville in the north. Large industrial spaces – currently disused or to be vacated over time – exist here. Redevelopment offers the opportunity to accommodate many more residents within Stellenbosch town, without a negative impact on agricultural land, nature areas, historically significant precincts, or "choice" lower density residential areas. In many ways, the ATC represents the key to protect and enhance what is special within Stellenbosch town, as well as the relationship between the town and surrounding nature and agricultural areas.

Conceptually, the ATC is the focus of new town building, west of the old Stellenbosch town and central business district (CBD). The "seam" between the new and old districts comprises Die Braak and Rhenish complex, which can form the public heart of Stellenbosch town. The CBD or town centre in itself can be improved, focused on public space and increased pedestrianism. A recent focus on the installation of public art could be used as catalyst for further public space improvements.

The inclusivity of infill housing opportunity – referring to the extent to which the housing provides for different income and demographic groups – whether as part of the ATC or elsewhere within Stellenbosch town – is critical. Unless more opportunity is provided for both ordinary people working in Stellenbosch, and students, it will be difficult to impact on the number of people commuting to and from Stellenbosch town in private vehicles on a daily basis.

Given the extent of inclusive opportunity associated with the ATC, the MSDF defines the ATC as a focus for major development energy and "catalytic" project.

3.10. Draft Integrated Human Settlement Plan (ISHP), 2018

A draft Integrated Human Settlement Plan (ISHP) was prepared for SM in 2018. The plan estimates housing need for the indigent (the plan refers to a "give-away" bracket) municipality-wide in 2016 as 11 6181. The estimated unfulfilled need of houses by 2036, assuming that no houses for the indigent will be built between 2016 and 2036, is 17 847. If the current rate of delivery persists only 7 805 units would have been added by 2036, thus still resulting in a significant backlog. Estimated housing demand for the non-indigent (in units larger than <80 m² and comprising a variety of unit types aimed at various markets, such as GAP housing, flats and townhouses, and stand-alone units) in 2016 was 15 042. If no supply is added by 2036 this demand is 23 106. The ISHP indicates that the largest demand for housing is in Stellenbosch town, which already accommodates 70% of the urban population of the SM.

At the time of preparing the ATC LSDF, SM was in the process of procuring a service provider to prepare a new IHSP.

3.11. Draft Inclusionary Housing Policy

Inclusionary housing is a spatially targeted mechanism that relies on the regulatory system of planning permissions to oblige property developers to provide affordable housing at prices below those targeted by their development. Inclusionary housing leverages the greater societal role in creating land value, along with the significant increase in the value of land, as a consequence of granting new or additional land use rights.

In other words, in return for additional land use rights, including a greater mix of uses and higher densities that generate significant value, the inclusionary housing mechanism applies a standardised requirement or "set-aside requirement" for developers to include, in their

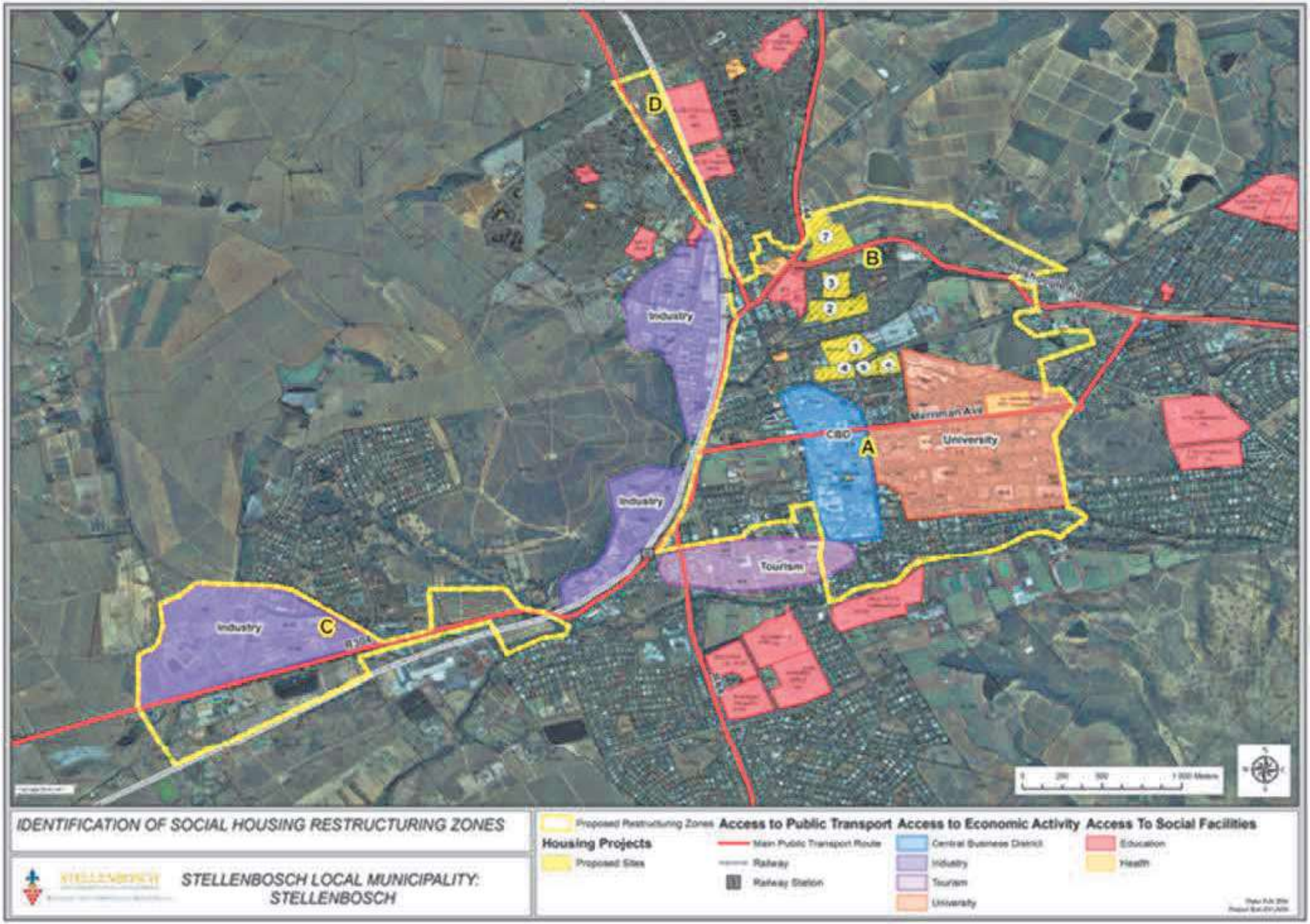


Figure 5. Restructuring Zones (Stellenbosch Municipality)

developments, a contribution towards housing that is affordable to lower-middle and lower-income households. The objective is to open up opportunities for more affordable housing in identified areas and to promote more integrated communities in those areas that are less starkly divided by income and race and more inclusive of key workers and young professionals in particular.

While the ATC LSDF was under preparation, the WCG advertised its "Inclusionary Housing Policy Framework" for comment. The Framework:

- Define inclusionary housing.
- Provide the rationale for its use as a mechanism for spatial transformation.
- Provide the basis for the application of inclusionary housing measures in the Western Cape.
- Outline how inclusionary housing can be introduced in municipalities.

In parallel with the WCG's policy initiative, the SM has commenced work on its own inclusionary housing policy framework.

3.12. Restructuring Zones

In 2016 SM defined Restructuring Zones with the aim of bringing lower income (and often disadvantaged) people into areas where there are major urban economic opportunities (both with respect to jobs and consumption) and from which they would otherwise be excluded because of the dynamics of the land market[4]. The proposed Restructuring Zone, illustrated in Figure 5 includes most of the CBD, Van der Stel and the area to its south, the Sawmill site, Droë Dyke, and the Oude Libertas vineyard.

3.13. Draft Stellenbosch Municipality Roads Master Plan (2018 Update)

The Draft Stellenbosch Municipality Roads Master Plan (2018 Update) gives specific attention to:

- A Eastern Link Road: a proposed class 4 road from Techno Park running through Paradyskloof and Brandwacht into the CBD, thereby removing some local traffic from the R44.
- The Western Bypass: a proposed class 2 road linking the R44 south of Stellenbosch with the R304 in the north (two options were tested: (a) a Techno Park/R44 southern starting point, (b) a Annandale/ R44 southern starting point).
- The R44 upgrade and reclassification: significant upgrade to the R44 and grade separating some intersections to improve mobility and capacity along the R44.

The RMP found that the following road sections function beyond capacity:

- The R304 before its intersection with the R44.
- The R44 (south) between Paradyskloof and the Van Reede intersection.
- Bird Street between the R44 and Du Toit Street.
- Merriman and Cluver Streets between Bird Street and Helshoogte Road.
- Dorp Street between the R44 and Piet Retief Street.
- Adam Tas Road between its junction with the R44 and Merriman Street.
- Van Reede and Vrede Streets between the R44 and Piet Retief Street.

Access roads found to be under severe pressure are:

- The Welgevonden access road.
- Lang Street into Cloetesville.
- Rustenburg Road into Idas Valley.
- The Techno Park access road.

3.14. Parking Study, 2019

SM appointed consultants to undertake a Stellenbosch Parking Study during March 2019. Following traffic surveys and development of a simulation model to assist in traffic analysis in the Stellenbosch CBD, the service provider instructed to develop recommendations for the development of two public parking garages, one at the Techno Park, and the other on the Eikestad Mall site behind the "City Hall" (preferably, the two facilities are to be developed by the private sector, according to specifications and legal guidance provided by the SM). Work to be concluded is presented in a report by the service provider dated April 2020[5].

3.15. Policy on the Management of Stellenbosch Municipality's Immovable Property, 2018

The preamble to the SM's policy on the management of its immovable property recognises the inequitable spread of ownership of immovable property throughout the municipal area, the historical causes thereof, and the leading role of the Municipality in redressing these imbalances by ensuring that the immovable property assets under its control are dealt with in a manner that ensures the greatest possible benefit to the Municipality and the community that it serves, and makes available economic opportunities. The preamble also recognises that the Municipality must manage its immovable property in a fair, transparent, and equitable manner. Section 5.1 states guiding principles for the policy, including:

- The use of the Municipality's immovable property to promote social integration, to redress existing spatial inequalities, to promote

4 https://stellenbosch.gov.za/download/defining-restructuring-zone-for-social-housing

5 13/SM 39/18: Transport Planning and Traffic Engineering for the Municipality's Parking Development Programme: Inception Report: Final Feasibility, April 2020 (SMEC)

Table 4. Relevant land owner plans for the ATC and adjacent areas

STELLENBOSCH MUNICIPALITY	
Kayamandi North	• Part of Kayamandi North is owned by the SM. • The SM has issued a tender for the detailed planning of the area.
Die Braak and environs	• SM has appointed service providers to explore the future use and integration of Die Braak and environs (including the municipally owned Rhenish Complex).
Van der Stel	• The SM has no definite plans for Van der Stel but the opportunity to rationalize existing use – accommodating a broader range of sporting facilities and associated uses and assisting in management sustainability – has been mooted. • Van der Stel is a key area for connecting the ATC with the rest of Stellenbosch.
UNIVERSITY OF STELLENBOSCH[1]	
US Business School	• The University intends to relocate the Business School from Bellville to a site west of the Oude Libertas Theatre. • It is hoped that locating the Business School here will also assist in securing the financial sustainability of the theatre complex.
PRIVATE	
Kayamandi North	• Part of Kayamandi North is in private ownership. • A concept proposal has been prepared for the middle section (Farm 81/33), termed "Newinbosch". • Some 1 100 residential opportunities and associated facilities are proposed for the 49ha site. • An application has also been submitted to develop a smaller adjoining section of land (Farm 81/29) into 158 (affordable) townhouse units.
Sawmill	• Previously, while owned by Steinhoff, a rezoning was submitted (and approved) for a regional mall and associated commercial development on the Sawmill site. • It is understood that the site has been sold, and a concept proposal has been developed for a mixed-use development.

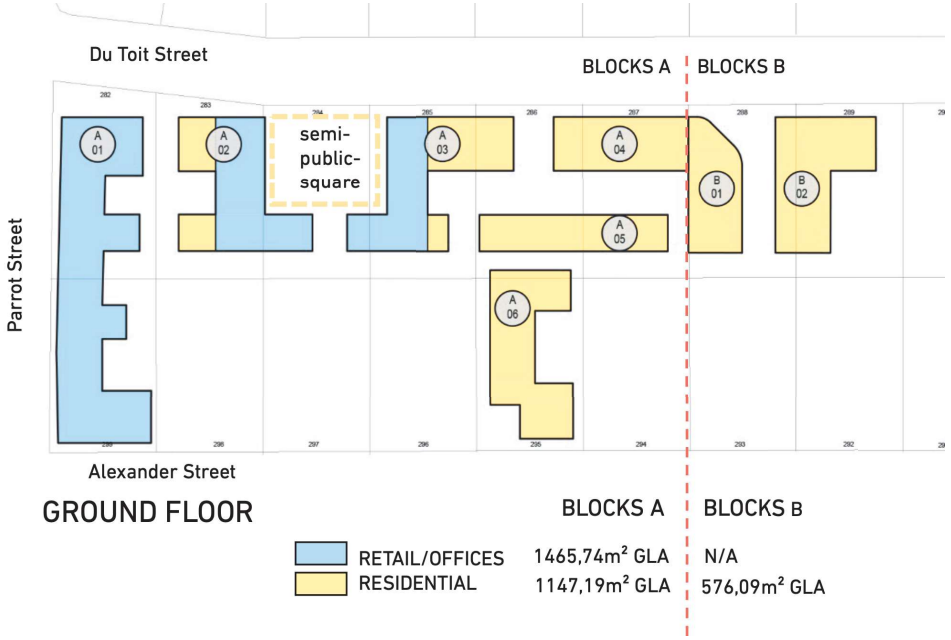


Figure 6. Proposals for area south of Van der Stel - Alexander & Du Toit Street Block Regeneration (URBA Architects, Urban Designers, June 2020)

1 The University is in the process of preparing an integrated spatial development framework, to serve as a guide for campus development in terms of inter alia land use, accessibility, open space structure, preservation of heritage and culture, pedestrian circulation, and traffic circulation and parking. The intent is for long-term capital plans to be aligned with the spatial development framework. The US Business School is the one development directly impacting on the ATC.

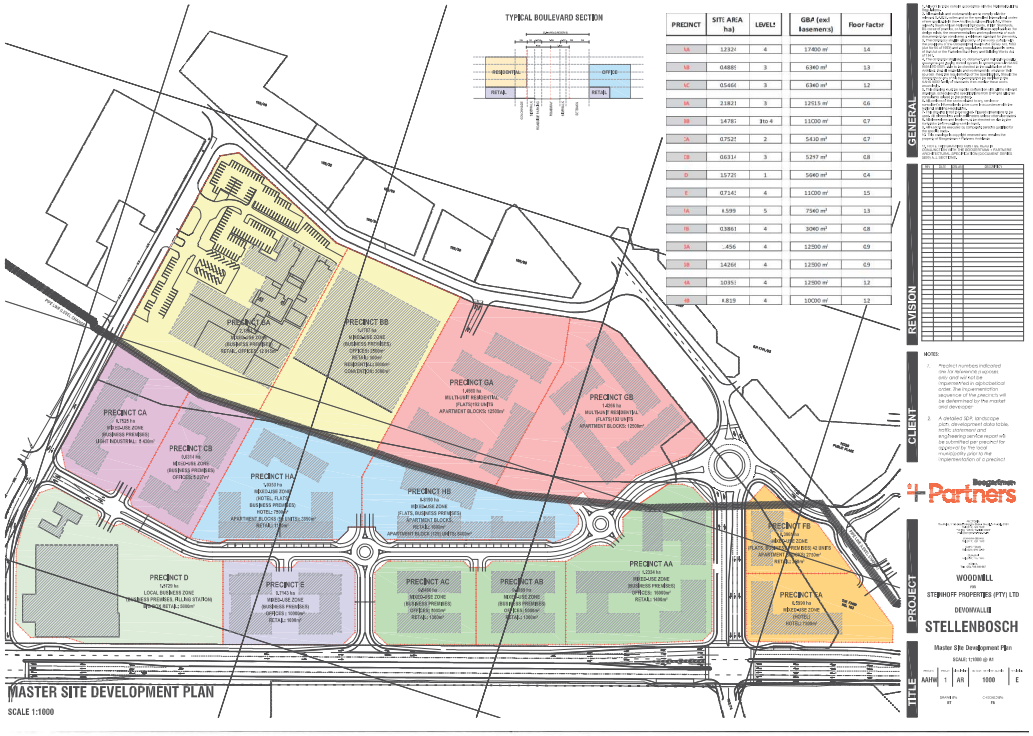


Figure 7. Proposal for the Sawmill redevelopment (Boogertman+Partners,)

Figure 8. Concept Masterplan for the Northern Extension (Osmond Lange Architects and Planners, 2019)

economic growth, to build strong, integrated and dignified communities and to provide access to housing, services, amenities, transport and opportunities for employment.

- The promotion of access by black people to the social and economic benefit of immovable property ownership, management, development and use.

The Policy recognises three broad methods of property disposal:

- Competitive processes (through formal tenders, public auction, closed tenders, and/ or unsolicited bids).
- Non-competitive processes (where non-viable property is disposed to an adjacent owner regarded as the only party who can use the land, or viable property is disposed without a competitive process).
- The exchange of land (when it is advantageous to the Municipality and other parties to exchange land in their ownerships and will achieve best consideration for the municipality).

3.16. Landowner Plans for the ATC and Adjacent Areas

Table 4 and accompanying figures summarizes known development proposals for various parts of the ATC and adjacent areas.

Table 5. Relevant land owner plans for the ATC and adjacent areas (continued)

PRIVATE	
Oude Molen	• A rezoning has been submitted for a mixed-use development comprising some 253 apartments and limited commercial use. • Provision is made for the road serving the development via Bosman's Crossing to be linked through the Bergkelder site to George Blake Road.
Remgro	• Previously Remgro prepared plans for low-key commercial/ residential infill development west and east of the Rupert Museum. • Various plans have been prepared to extend riverside NMT routes to and past the Remgro precinct. • The relocation of the agri-mark to a more favorable location on the edge of town has been mooted.
Bergkelder	• Distell has appointed GrowthPoint as its development partner for the Bergkelder site. • GrowthPoint has not yet submitted its plans for Bergkelder.
PRIVATE: ADJOINING ATC	
Dennesig	• Various proposals and applications have been submitted to the SM for predominantly residential densification of single dwelling zoned erven in the Dennesig area. • Some higher density redevelopment has occurred.
Area south of Van der Stel	• A concept proposal has been prepared for predominantly residential densification of single dwelling zoned erven in the area south of Van der Stel (between Alexander and Du Toit Streets).

Figure 9. Proposals for Oude Molen (First Plan Town Planners, 2020)

Part 4.

Local Spatial Development Frameworks

4. Local Spatial Development Frameworks

4.1. Focus

Section 9 of the Stellenbosch Municipality Land Use Planning By-law of 2015 outlines the purpose a Local Spatial Development Framework (LSDF) prepared for a specific geographic areas as well as aspects related to its preparation, review, and status.

The purpose of a LSDF is to:

- Provide detailed spatial planning guidelines.
- Provide more detail in respect of a proposal provided for in the MSDF.
- Meet specific land use planning needs.
- Provide detailed policy and development parameters for land use planning.
- Provide detailed priorities in relation to land use planning and, in so far as they are linked to land use planning, biodiversity and environmental issues.
- Guide decision-making on land use applications.

When the Municipality compiles, amends or reviews LSDF, it must adopt a process plan, including the public participation processes to be followed for the compilation, amendment, review or adoption of the LSDF. The Municipality must, within 21 days of adopting a LSDF – or an amendment of a LSDF – publish a notice of the decision in the media and the Provincial Gazette. A LSDF or an amendment thereof comes into operation on the date of publication of the notice in the Provincial Gazette.

A LSDF guides and informs decisions made by the Municipality relating to land development, but it does not confer or take away rights.

4.2. User Categories

The LSDF for the ATC targets two broad user categories. The first is the government sector, across spheres from national to local government, including State Owned Enterprises (SOEs). While the LSDF is informed by the spatial direction stated in national, provincial, and district level policy, it also sets out the municipality's spatial agenda for government departments across spheres of government to consider and follow. Thus, the LSDF outlines the municipality's spatial agenda to its own service departments, ensuring that their sector plans, programmes, and projects are grounded in a sound and common spatial logic.

The second user category is the private and community sector, comprising landowners, business enterprises, non-government organisations, institutions, and private citizens. While the private sector operates with relative freedom spatially – making spatial decisions within the framework of land ownership, zoning, and associated regulations and processes – the LSDF gives an indication of where and how the municipality intends to channel public investment, influence, and other resources at its disposable. This includes where infrastructure and public facility investment will be prioritised, where private sector partnerships will be sought in development, and how the municipality will view applications for land use change.

4.3. Approach to the ATC LSDF

Given the extent of the ATC area and anticipated lengthy development period, the ATC LSDF is not as detailed in its recommendations as most LSDFs prepared by municipalities.

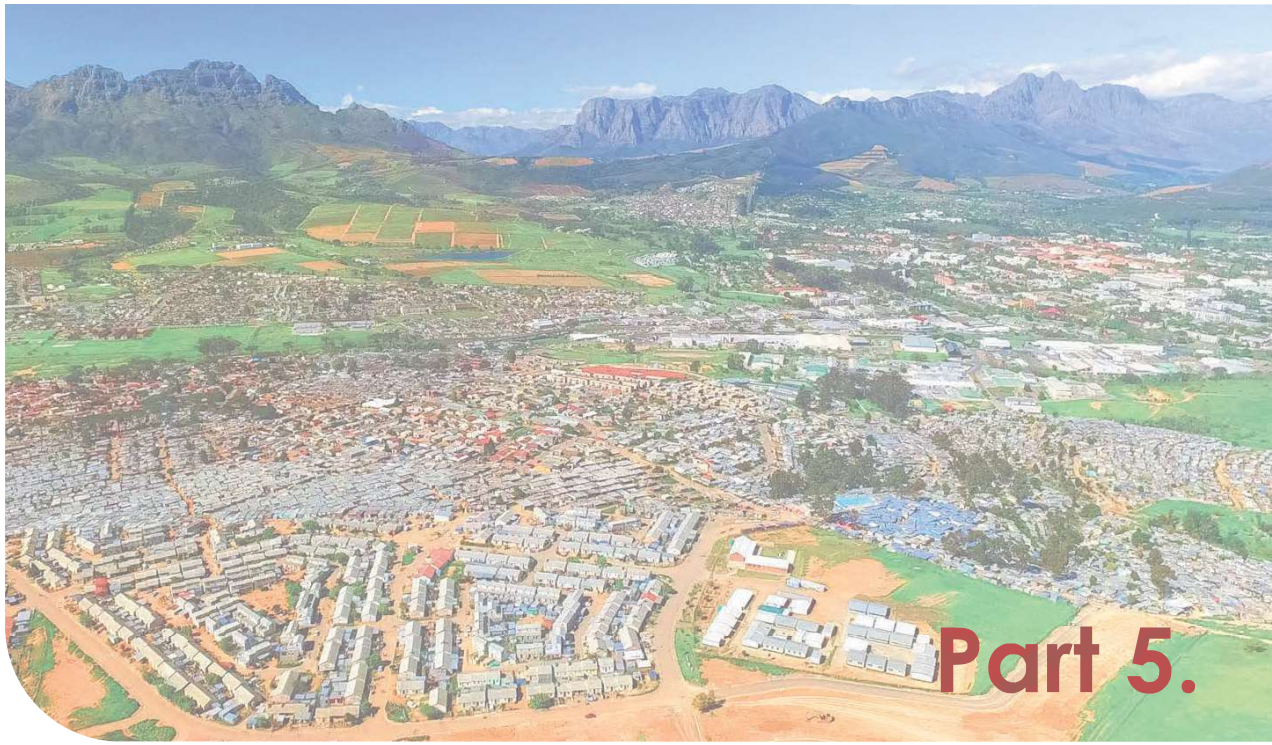
Rather than providing detailed land use proposals, the ATC sets out to provide the minimum necessary guidance – in terms of development principles, land use, urban structure, and infrastructure to enable meeting project objectives while accommodating change in market conditions over the development period of the project. Considerable attention is given to the applicable LUMS and landowner obligations associated with exercising development rights to be allocated following the LSDF process.

4.4. Public Participation

SPUMA, LUPA, the Stellenbosch Municipality Land Use Planning By-Law of 2015, and related planning legislation and regulations provides for public participation associated with the preparation of spatial development frameworks.

Considerable public participation and discussions related to development of the ATC have already occurred during conceptual planning phases and the preparation of the SM MSDF.

Further opportunity for public participation is planned, ideally in parallel with the advertising of measures to amend the Stellenbosch Municipality Zoning Scheme By-Law of 2018 to accommodate the land use rights and associated landowner obligations contemplated in the LSDF.



Part 5.

Status Quo

5. Status Quo

The sections below outline the status quo, opportunities, and constraints in the ATC area in relation to the themes identified in the SPLUMA guidelines, with additional themes regarded as relevant added. For a broader context on the status quo beyond the ATC area, the IDP and MSDF should be consulted.

Some information related to specific parts of the area is very detailed – predominantly because detailed studies have been undertaken for them before – while in other cases less detailed information is available. Arguably, the level of detail information presented for some areas is not required for preparing the LSDF. It is nevertheless presented for the record and because broader conclusions can be drawn from it.

5.1. The Transformative History and Social Capital of Stellenbosch

Stellenbosch has a rich history of developing and implementing initiatives which transformed – or are transforming – the area and broader constituencies for many generations. These are not attributed to one sector of society, but rather individuals or groups across of different affiliations or backgrounds conceptualising and executing projects or programmes through influence, investment, and harnessing wide-ranging resources in a manner which focuses diverse interests on common objectives, garners more support and grows benefits over time.

Examples of transformative initiatives in Stellenbosch abound, including:

- The establishment of a university – now ranked as a "Top 3" university across Africa – enabled by a £100 000 donation by a local benefactor, Mr Jan Marais of Coetzenburg (and built upon earlier education initiatives, including the establishment of the Theological Seminary, Stellenbosch Gymnasium, and Victoria College.
- The active purchasing of historic buildings in town with a view to restore and conserve them by Dr Anton Rupert (at a time when, as pointed out by Dr Rupert, despite some achievement in the conservation of historic buildings in South Africa, for every building restored, 40 to 50 were demolished)[6].
- The rapid development of Stellenbosch's wine and tourism industries (including Stellenbosch establishing the first wine route in South Africa as an organised network of wineries open to visitors and tourists in 1971).
- The development of numerous private corporations with international reach (with Stellenbosch accommodating the global headquarters of 20% of the South African Stock Exchange).
- Innovus – a division of the university – becoming a continental and South African leader institution in technology development, entrepreneurial support and development, and innovation.
- Numerous philanthropy and community assistance programmes and projects, addressing the immediate and longer term needs of citizens.

5.1.1. Key Attributes

- Key attributes of Stellenbosch which contributes to its capacity to enable transformative initiatives include:
- Considerable intellectual capacity and associated institutions, advancing learning and knowledge, both integrated and subject specific.
- Wealth, generously allocated to explore new ways of approaching current challenges across many sectors.
- Strong social capital – shared values and trusted personal relationships and networks, both within and outside institutions – which contribute to individual and collective opportunity and development at many levels.
- A rich natural and urban environment, attractive as a place of residence and inviting of further investment.
- The inherent energy of poorer citizens and communities (illustrated, for example, in the rapid rebuilding of homes without much external assistance post fire disasters).

5.1.2. Opportunities

Arguably, there is more that could be done in Stellenbosch, learning from and building upon its history of transformative practice.

The way settlements are structured – different activities are organized within them, the form these activities take, and the extent to which they can be accessed by people – fundamentally impacts on the livelihood opportunity of inhabitants. The structure and form of South African cities and settlements – including Stellenbosch – illustrate generations of development and management directed at maximising opportunity for specific groups while restricting others. Since the democratic transition in South Africa, much has been done to reverse discriminate settlement development and management practices. Specifically, at policy level, the "spatial restructuring" and "integration" of settlements have received much priority.

In practice, despite a progressive policy and legislative framework aimed at restructuring, little progress has been made. Arguably, urban

6 Lipman, E. N., Principles of Urban Conservation, Architect & Planner (undated, but pre 1990)

development and management practice remain skewed to benefit some more than others. Our policy-speak and actions are not aligned. The consequences are multifold. Different groups remain apart, as well as associated fear and lack of understanding. Rather than a "shared" space, settlements are increasingly becoming a set of guarded domains. At the same time, the very practices structured to keep people apart have proved to be environmentally, economically, and financially unsustainable.

The ATC initiative was conceptualized to address these settlement challenges. It recognized that:

- Resource constraints will inhibit government from restructuring settlements for the better on its own.
- Given Stellenbosch's social capital and material and intellectual wealth, it should be the place where real change in the way settlements is developed can be affected.
- Stellenbosch has for some time – in crafting a vision or objective – claimed to be (or be in the process of becoming) the "innovation capital" of South Africa. Reasonably, one can argue, the focus of work around this claim or vision has been on information technology and related systems, and that to be meaningful in our context, such a claim requires a much broader view of innovation, including innovative urban development and management.

5.1.3. Constraints and Actions Required

While there is considerable opportunity to learn from past and current achievements in implementing the ATC, important challenges remain. These include:

- How do one convince leadership from different sectors – many who possibly achieved great success based on "control" – to work together to achieve common aims in a context where one individual does not have absolute control?
- How are the different but interdependent resources required to undertake the ATC – ranging from intellectual, to financial, to land – viewed as of "equal" significance?
- How should major corporations relate to their "hometowns", work with local government, and assist in meeting common challenges through, among others, using their land resource?
- How are "leader" or starter projects enabled to facilitate learning and build support in initiatives anticipated to roll out over a long period?
- What kinds of agreements and institutional arrangements are needed for an initiative of this kind?
- How can citizens – from individuals to groups across sectors of society – actively participate in and benefit from the ATC initiative?

These questions – and there are many more – point to the rich context that needs to be addressed when tackling large transformation projects in the built environment. Critically, however, the questions perhaps indicate the lack of, and need for, a robust framework of processes and "ways of doing" for planning and executing transformation initiatives of the scale and nature of the ATC. The core question appears to be: Even if we can envisage a "shared and healed spatial future", how do we enable a "conscious choice for the priority of the possible"? How do we structure and govern the process towards this future? How do we ensure that the future pursued remains true to its intent, its root desire?

5.2. Area, Land Ownership and Use Rights

The area is very large in extent. Large parts of the area – except for Droë Dyke, Van der Stel, and Papegaaiberg – is in private ownership. Critical parts of the area form large landholdings in individual ownership. Large parts of the area are zoned for purposes no longer in demand (industrial related uses). Current zoning for the area is indicated on Figure 10.

The large area offers opportunity for significant development meeting a range of needs while inhibiting sprawl and the erosion of agricultural and natural assets in SM. A relatively few large landowners could assist in reaching a speedy agreement on the future of the area. The need for new zoning enabling development provides the municipality with the opportunity to direct development to agreed policy objectives.

5.2.1. Key Attributes and Opportunities of specific land parcels

Droë Dyke: Owned by the national government. It is understood that the Housing Development Agency has "first right" to development of the area, providing the opportunity for significant housing development.

Sawmill: It is understood that Steinhoff has sold the Sawmill site. It appears that a previous proposal for a regional shopping mall/office on the site will not be pursued. A more recent concept has been developed for a mixed-use area in terms of the zoning granted for the shopping/office complex.

Adam Tas: Owned by Distell and zoned for "Industrial".

Bosman's Crossing and Oude Molen: The area is privately owned. New commercial and residential development has occurred at Bosman's Crossing.

Bergkelder: Owned by Distell. The older parts of the site include two every large erven, both sides of the Plankenbrug River zoned as "Wine Industry". The two erven are separated by a strip zoned as "Local Authority" along the southern edge of the river. The river itself is State land and not zoned. The three erven closest to the main entrance are zoned "Light Industrial". There are no title deed conditions which restrict or limit the use of the property or its redevelopment, except standard title deed conditions which restrict the use to the applicable zoning or applicable township conditions.

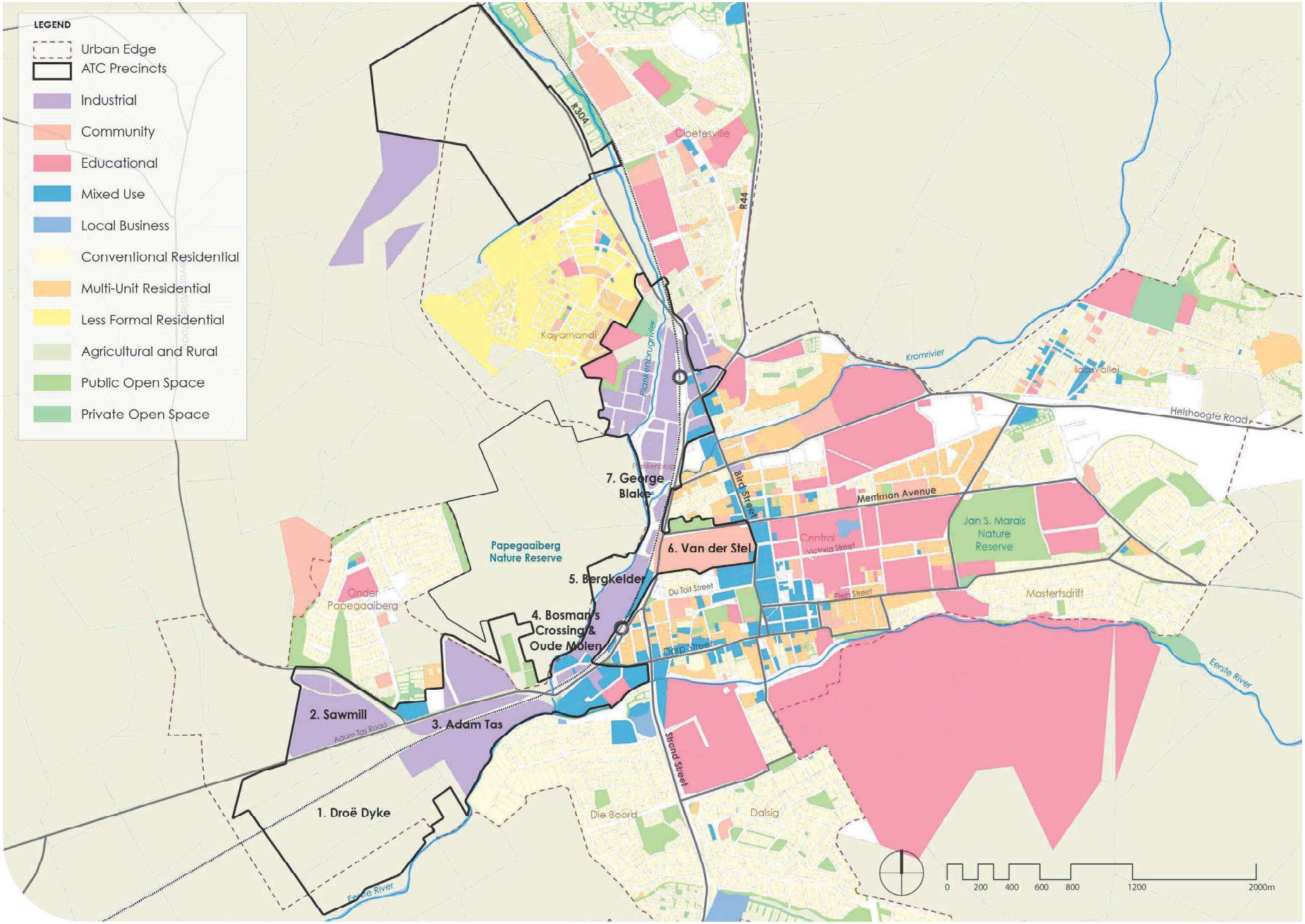


Figure 10. Current zoning and land use rights

Van der Stel: Owned by SM. Large parts were leased to sports clubs. The zoning is for community purposes, in line with its sports use history.

George Blake: Smaller sites owned by a multitude of individual owners and zoned for industrial use.

Rail Corridor: Owned by PRASA

5.2.2. Constraints and Actions Required

Given the extent of development opportunity, it is best to plan development holistically to ensure maximising landowner returns and public benefit and the coordination of infrastructure needs.

Mixed ownership requires public-private agreement on uses, infrastructure, and so on. Most of the area will require rezoning to enable redevelopment. Parts of the area zoned for industrial or business use are prized for its contribution defining the spatial contexts and environs for special places. Notable is the vineyards associated with the Oude Libertas theatre and Rupert Museum. These areas should arguably remain undeveloped, and the means to protect them explored as part of the ATC project.

There appears to be few title deed restrictions which will inhibit redevelopment, but a detailed review of title deeds is appropriate at later planning stages.

5.3. The Biophysical Context

5.3.1. Rivers

5.3.1.1. Key Attributes

Three rivers abut or traverse the site (the Eerste, Plankenbrug, and Krom). The Plankenbrug is severely polluted, largely owing to upstream infrastructure issues in Kayamandi, and agriculture, industrial and transport related pollution. Flood lines and hydrology issues may curtail development, especially on the Droë Dyke site.

5.3.1.2. Opportunities

The Plankenbrug River specifically can potentially be a significant public amenity and linear park, also connecting districts of the ATC through NMT routes (This can build on and expand on work funded by Remgro along the Eerste River).

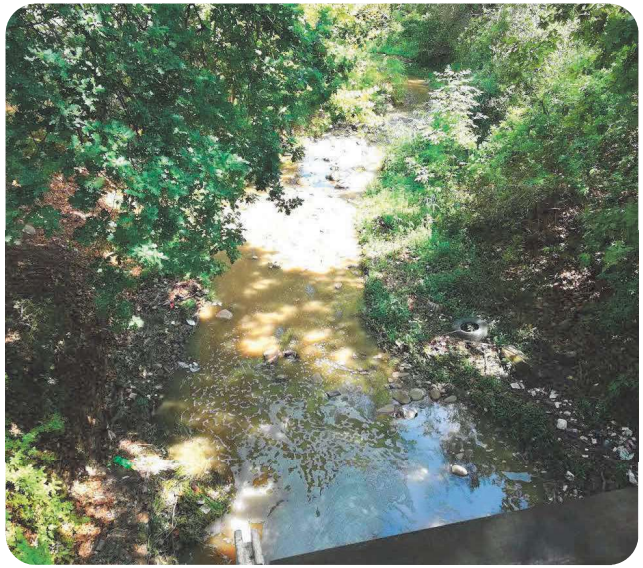


Figure 11. Photograph of the Plankenbrug (left) and Eerste River (right) (Source: Jeremy Rose, Infinity Environmental, 2021)

5.3.1.3. Constraints and Actions Required

To maximise the contribution of the Plankenbrug River to the overall development as a public amenity, upstream pollution needs to be managed, and infrastructure remedial work is required in Kayamandi. A regional-scale flood and water quality attenuation facility should be explored for the Plankenbrug to mitigate water quality issues. Flood lines and hydrology for the area should be updated. The opportunity for development contributions in support of appropriate/enhanced environmental management should be explored. A water use authorisation would be required in future if works in or near the river are proposed.

5.3.2. Papegaaiberg

5.3.2.1. Key Attributes

Papegaaiberg, comprising some 140,5ha, is a public conservation area (declared as a Section 23 Nature Reserve in terms of the National Environmental Management: Protected Areas Act). Its open use appears to be curtailed by management issues. Critically endangered renosterveld remnants occur on Papegaaiberg.

5.3.2.2. Opportunities

There is an opportunity for Papegaaiberg to become a core recreation space where biodiversity is celebrated, accessible to the ATC and rest of Stellenbosch.

5.3.2.3. Constraints and Actions Required

For Papegaaiberg to fulfil a role as a core amenity within the ATC and Stellenbosch, it will require a plan and associated budget and management arrangements.

5.3.3. Contamination

5.3.3.1. Key Attributes

Replace with 'Given the use history of parts of the area, soil and groundwater contamination may have occurred at the older industrial properties.

Asbestos-containing sheeting is widely used in older industrial buildings in the corridor (such as the Bergkelder).

5.3.3.2. *Opportunities*

Redevelopment of the area provides the opportunity to clean or contain areas with contaminated soils. Redevelopment of the area provides the opportunity to remove harmful asbestos-containing material in buildings and structures.

5.3.3.3. *Constraints and Actions Required*

Contamination risk assessments (i.e. Phase 1 soil contamination assessments) should be conducted for industrial sites in the corridor where the land use is changing. Where the risk of contamination is established, sampling of soils and groundwater to determine the level of risk must be undertaken. This would be applicable primarily to older industrial sites such as the Sawmill, Bergkelder, and Adam Tas). Asbestos surveys should be conducted on industrial properties where these are not already available. A work plan for removal must be approved prior to any demolition or redevelopment of affected buildings, and an asbestos clearance certificate provided on completion.

5.3.4. Green Services

5.3.4.1. *Key Attributes*

As noted in section 5.5 below, redevelopment of the Corridor will require significant investment in new services. Maximising the efficiency and 'green' services utilised by new development will contribute to reduced resource dependency.

5.3.4.2. *Opportunities*

Redevelopment of the area provides the opportunity to promote green services.

5.3.4.3. *Constraints and Actions Required*

Rooftop solar generation, sustainable urban drainage systems, and indigenous urban landscaping should be the norm.

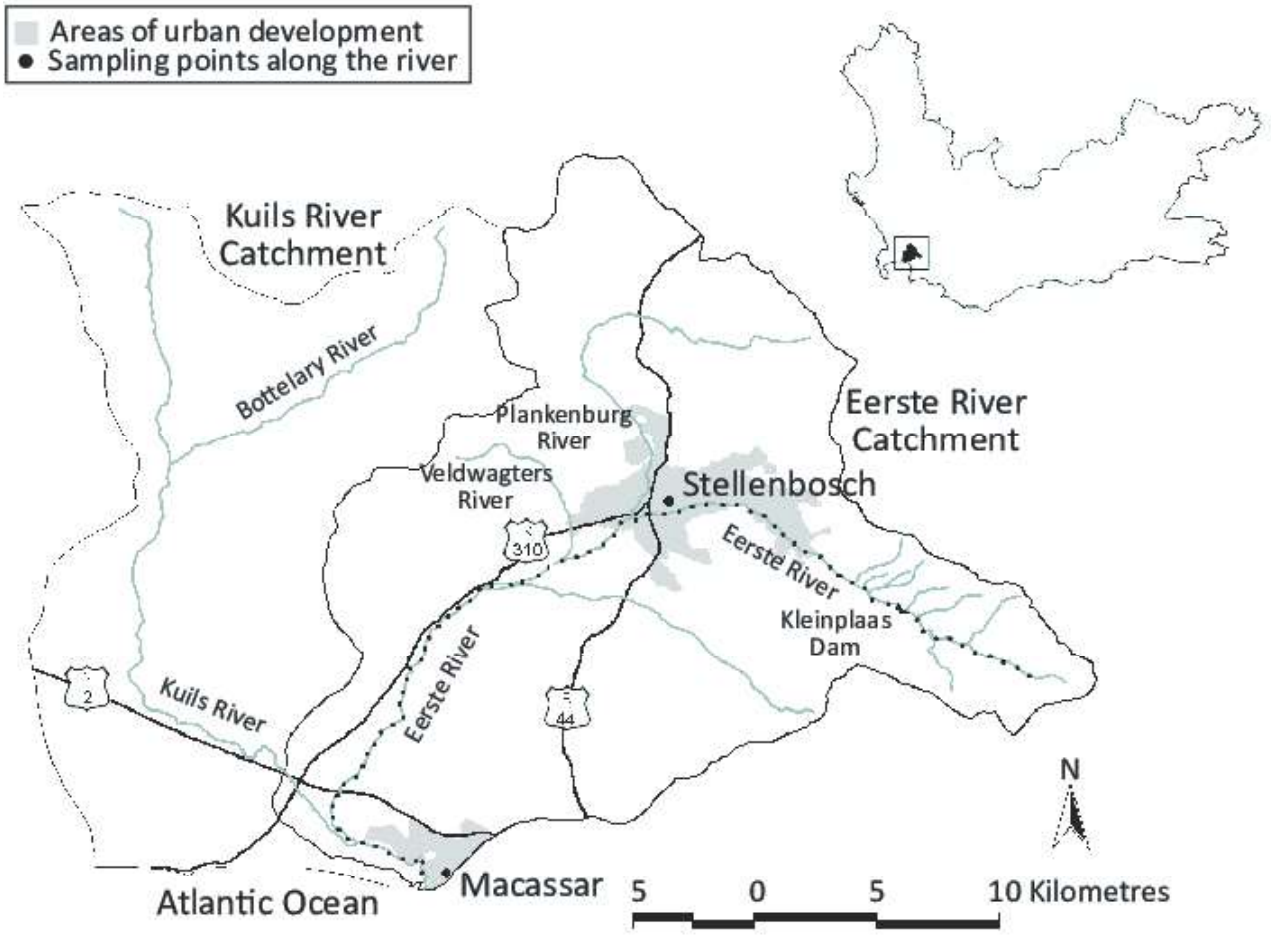


Figure 12. The location of the Eerste River in the Western Cape (Source: Meek, C.S., Richardson, D.M. & Mucina, L. (2013) Plant communities along the Eerste River, Western Cape, South Africa: Community descriptions and implications for restoration. *Koedoe* 55(1), Art. #1099, 14 pages)

5.4. The Socio-Economic Context[7]

5.4.1. Poverty

5.4.1.1. Key Attributes

Stellenbosch GDPR per capita has declined since 2015. This could be attributed to the growing population or be an indication of declining income levels in the area. The Gini coefficient of the Stellenbosch municipal area is the highest in the CWD and outside of the NDP target of 0.6.

5.4.1.2. Opportunities

Redevelopment of the area provide the opportunity to decrease access barriers to opportunity in Stellenbosch.

5.4.1.3. Constraints and Actions Required

High levels of poverty and indigence imply an increased burden on municipal financial resources to provide in community needs. Ideally, the ATC should not add to pressure on municipal resource. Given the limited income of a large proportion of the population, a settlement structure and form prioritizing walking and public and NMT, should be pursued.

5.4.2. Education

5.4.2.1. Key Attributes

Within the Western Cape, the highest growth in learners is expected to occur in the Stellenbosch municipal area. A 2019 study found that the number of schools across the CWD remain mostly unchanged in recent years, with the proportion of no-fee schools to fee schools in the Stellenbosch municipal area remaining the same from 2016 to 2018.

5.4.2.2. Opportunities

Redevelopment of the area provide the opportunity to provide new educational facilities accommodating learners from all-over Stellenbosch.

5.4.2.3. Constraints and Actions Required

It is unlikely that existing schools within Stellenbosch can cater for learners from the ATC. New educational facilities will have to be provided.

5.4.3. Housing

5.4.3.1. Key Attributes

A significantly larger proportion of Stellenbosch residents reside in informal dwellings or shacks compared to the CWD. The estimated need for houses, municipality-wide, in the "give-away" bracket in 2016 was 11 6183. The estimated unfulfilled need of houses by 2036 assuming that no houses for the indigent will be built between 2016 and 2036 is 17 847. If the current rate of delivery persists only 7 805 units would have been added by 2036, thus still resulting in a significant backlog.

In the non-indigent bracket, the estimated need, municipality-wide in 2016 was 15 042 (this 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 by 2036: 23 106.

Property prices and rentals in SM have shown significant growth (of a higher percentage than the increase in cost of building). Many lower income areas appear to have a high incidence of overcrowding. With a total student population of more than 30 000, there are only 8 000 beds available for students (2 300 of these beds are available for first-year students on the Stellenbosch and Tygerberg campuses).[8]

5.4.3.2. Opportunities

Redevelopment of the area provide a significant opportunity to increase access to housing for lower income groups – specifically those qualifying for "affordable" housing – and students.

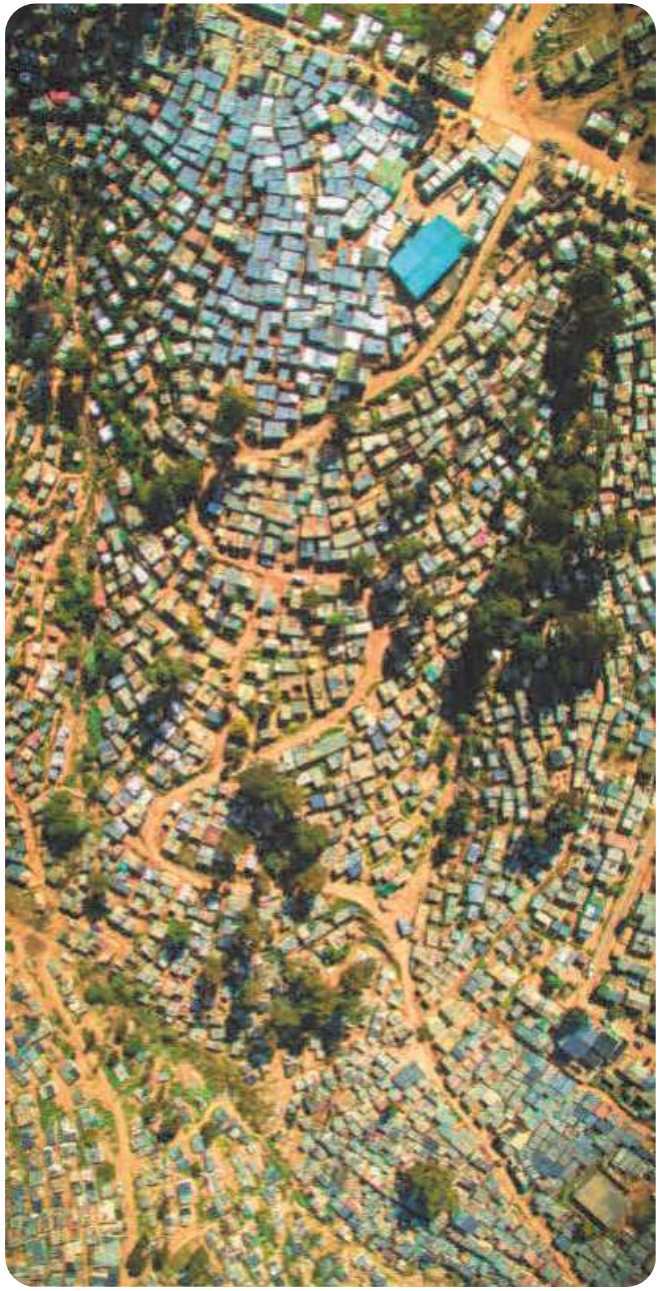


Figure 13. Aerial view of informal dwellings in Kayamandi (Source: https://unequalscenes.com/stellenbosch-kayamandi 2018)

7 Mostly sourced from From Stellenbosch Municipality, Urban Development Strategy, 2018

8 Dire shortage of student accommodation 'could worsen' https://www.iol.co.za/weekend-argus/news/dire-shortage-of-student-accommodation-could-worsen-42389997

5.4.3.3. Constraints and Actions Required

The provision of housing for targeted groups can be made a condition of the development rights to be allocated.

5.4.4. Employment

5.4.4.1. Key Attributes

Together, wholesale and retail trade, catering and accommodation; the finance, insurance, real estate and business services sector; and the community, social and personal services contributed almost 57% to total employment in SM in 2019. Job growth in these sector were offset by job losses in the agriculture, forestry and fishing, and manufacturing sectors.[9]

5.4.4.2. Opportunities

A high-level economic impact study prepared during the conceptual phase of the project indicated very significant employment creation opportunity, both during the construction and post construction phases of the project.

5.4.4.3. Constraints and Actions Required

It is unlikely that existing schools within Stellenbosch can cater for learners from the ATC. New educational facilities will have to be provided.

5.5. The Built Environment Context

5.5.1. Land Use

5.5.1.1. Key Attributes

In the past, the ATC area largely formed the industrial component of Stellenbosch town, with an emphasis on land extensive sawmilling and wine making operations (e.g., the Sawmill, Adam Tas, Oude Molen, Bergkelder). Smaller industrial enterprises are located along George Blake Road in the Plankenbrug area.

The sawmill has closed, and Distell has relocated most of its manufacturing operations from Bergkelder (some storage remains). Distell's operations at Adam Tas will continue for the foreseeable future.

Some residential and institutional uses (e.g., Police, Oude Libertas theatre, cemetery) occur in the western section east of the Sawmill. Bosman's Crossing, south-west of Oude Molen, has undergone steady redevelopment with housing and commercial use.

Kayamandi has gradually grown west and south-westwards, around the western flank of Papegaaiberg and separated from Onder-Papegaaiberg by one farm. To the east, particularly in the Dennesig and Du Toit/ Alexander Road areas, there is considerable interest in redeveloping single residential areas to higher density accommodation. However, the area has a dearth of public facilities (e.g., schools).

Van der Stel remains predominantly for sports use. Public areas such as the cemetery and Papegaaiberg are arguably poorly integrated with the surrounds and often unsafe for use/access.

5.5.1.2. Opportunities

The industrial use history of large parts of the area provides the opportunity to plan and develop significant parts of the site anew.

The extent of the area presents an opportunity for a range of uses, including uses requiring some form of cross-subsidisation.

A vacant school site exists in Onder-Papegaaiberg. The size of the Van der Stel lends itself to careful redevelopment and enhanced opportunity while maintain a sports component.

5.5.1.3. Constraints and Actions Required

The ensure that project objectives are met, a balanced mix and distribution of land uses will have to be pursued, including significant residential development (and associated public facilities).

5.5.2. Urban Structure and Built Form

5.5.2.1. Key Attributes

In large part, the ATC is segregated from Stellenbosch town through rail and road infrastructure.

Parts of the area – given its industrial use history and associated limited public access – are not well integrated.

Large industrial spaces – in varying conditions of repair – dominate large landholdings (e.g., the Sawmill, Adam Tas, Bergkelder).

The "in-town" vineyard abutting the R310 is unique and provides a special setting to Oude Libertas theatre.

5.5.2.2. Opportunities

Integration of the area with Stellenbosch town is possible with bridging at selective places. There is an opportunity to connect Papegaaiberg with Du Toit Road/Victoria Street – forming a "university avenue" – and Jan S Marais Park.

Integration between parts of the site is possible through connecting Distillery Road with George Blake Road as well as creative use of the river corridor. Some large industrial spaces lend themselves to adaptive re-use (or alternative interim uses).

5.5.2.3. Constraints and Actions Required

Integrating the ATC with Stellenbosch town, and parts of the area with each other, is a key challenge to be overcome in realising the area's full potential. To enable the Papegaaiberg-university avenue-Jan S Marais Park connection, bridging of the rail and R44 is required in the vicinity of Alexander Road/Du Toit Street.

9 From WCG: Socio-economic profile, Stellenbosch Municipality, 2019

5.5.3. Access and Movement[10]

5.5.3.1. Key Attributes

Vehicular access to the area – and between parts of the area – is limited. Development of Bergkelder/Oude Molen can be accommodated with the upgrading of Bird Street Intersection; the elimination of the rail level crossing at Adam Tas/ George Blake Road; the realignment of Merriman Avenue; upgrading of the existing Stellenbosch Rail Station; upgrading of the Adam Tas/Strand Street Intersection; and a new street-to-street pedestrian crossing adjacent to Stellenbosch Station.

For the Sawmill and Libertas, the realigned of Devon Valley Road, upgrade of the Adam Tas/ Devon Valley Road intersection, and the upgrade of the Adam Tas/Oude Libertas Street intersection is required.

With the development of Droeë Dyke, Adam Tas, and Van der Stell, a new overhead railway station and road-over-rail bridges are envisaged. Development of George Blake and Kayamandi North will require various station, bridging and intersection improvements.

5.5.3.2. Opportunities

There is an opportunity to connect Distillery Road with George Blake Road, providing for a continuous "spine" route through the area.

5.5.3.3. Constraints and Actions Required

Achieving overall project objectives will require a focus on walkability, NMT, and public transport.

5.5.4. Heritage

5.5.4.1. Key Attributes

Bergkelder[11]: In terms of a narrow definition of heritage there are few, if any, identifiable heritage resources (buildings) on the site. A group of buildings in the southern portion of the site dating from the first phase of development (mid 1940s to the 1960s) illustrate the character of the early Bergkelder.

5.5.4.2. Opportunities

Retention of the group of buildings illustrating the early phase of development can contribute to maintain the use history and character of the site. These buildings are capable of further adaptive re-use and could be substantially altered to accommodate new uses without impacting on the industrial character.

The retention of the overall grain and texture, visual grid, associated tree-lined avenues, stone-walled edge conditions, and the visual axes towards the Papegaaiberg, can contribute to the making of a special place.

5.5.4.3. Constraints and Actions Required

The Notice of Intent to Develop should state that the history of the site and the collection of mid-twentieth century buildings and their spatial relationships warrants a limited HIA, focused on the identification of place-making elements and the formulation of heritage indicators, to guide future development options which are responsive to the heritage of the place.

5.5.5. Engineering Services

5.5.5.1. Key Attributes

Phasing[12]: The existing bulk infrastructure can be utilised with minimal upgrades for the development of the Oude Molen/Bergkelder, Libertas, and Sawmill precincts.

Sewer Reticulation and Treatment: To unlock the Oude Molen/Bergkelder, Libertas, and Sawmill precincts, a minimal amount of bulk sewer pipelines needs to be upgraded. Unlocking Droeë Dyke, Adam Tas, and Van der Stell requires the upgrading of a substantial number of bulk sewer pipelines as well as a bulk sewer pump station to the wastewater treatment plant. Unlocking George Blake and Kayamandi North requires the upgrading of a substantial number of bulk sewer pipelines.

Water reticulation and treatment: To unlock Oude Molen/Bergkelder requires no new bulk water infrastructure is required. To unlock the Sawmill and Libertas, a proposed new 15Ml water storage reservoir is required at Pappegaaiberg. To supply the reservoir with water, a new water supply pump station is required. This water supply pump station will also supply the proposed new 6Ml water storage reservoir required to service George Blake/ Kayamandi North. A supply pipeline from the pump station to the reservoir is required as well as several bulk water supply pipeline upgrades to the Sawmill and Libertas.

Electrical engineering: To service the ATC, it is envisaged that two new electrical substations will be required as well as the upgrade of several electrical bulk supply lines. The two substations would divide the proposed ATC development into two supply zones. One substation will supply precincts south of George Blake, and another George Blake and Kayamandi North.

5.5.5.2. Opportunities

Existing infrastructure in the vicinity of the ATC could be enhanced and expanded to service the development. This work will also fulfil needs in surrounding areas.

5.5.5.3. Constraints and Actions Required

Most of the infrastructure implications of the development cannot be linked to specific sites. This implies that landowners will have to work together in infrastructure provision. The roll out of development will also have to carefully phased and aligned with infrastructure provision.

10 Based on The Adam Tas Corridor Bulk Infrastructure Concept Status Report, 2019 (prepared by Zutari)

11 Based on Die Bergkelder Site Erven 13801, 7602, 254, 257, 3454, 9545 Stellenbosch, Summary Report: Opportunities & Constraints from a Redevelopment Perspective, June 2018 (Distell)

12 Based on The Adam Tas Corridor Bulk Infrastructure Concept Status Report, 2019 (prepared by Zutari)

5.6. The Institutional Context

5.6.1. Policy

5.6.1.1. Key Attributes

The ATC has been included in the MSDF as a "catalytic" project. There appears to be poor integration between spatial and transport planning with SM transport planning focus and expenditure remain focused on roads and accommodating private vehicular transport. Inclusionary housing has been promoted in policy as a means to improve access and the functioning of settlements in South Africa. Arguably, there has been little success in particularly private sector initiatives to provide such housing. The WCG and Stellenbosch Municipality are both in the process of addressing policy gaps related to institutional housing. Norms and standards for public facilities – including schools – often imply facilities of a scale to conducive to high density/intensity development.

5.6.1.2. Opportunities

Inclusion of the ATC in the MSDF should assist in agreement to the LSDF and further planning processes. The ATC offers significant opportunity for the provision of affordable housing.

5.6.1.3. Constraints and Actions Required

The ATC LSDF is obliged to follow transport planning informed by national/provincial settlement planning and management statute and policy. The provision of affordable housing in the ATC area is a prerequisite for meeting national/provincial/ local spatial planning and management objectives and mandated by law. The LSDF should explore a reasonable proportion of affordable housing related to the land value added through the allocation of significantly enhanced development rights. The ATC should explore alternative standards for public facilities, especially schools.

5.6.2. Resources

5.6.2.1. Key Attributes

The SM's capital budget amounted to R1.339 bn over the 2019/20 MTREF. Most of the Municipality's capital budget (64%) was directed towards the trading services (basic service delivery) function, the majority of which will in turn was applied towards water and waste water management services (81% of the trading services budget)[13]

5.6.2.2. Opportunities

There appears significant opportunity to harness landowner resources to contribute to infrastructure and other benefits in exchange for the land use rights to be allocated for the ATC.

5.6.2.3. Constraints and Actions Required

Available municipal capital funding is required for backlogs and maintenance, i.e., there are virtually no funds to investment in support of new development and improvements to address existing problems with infrastructure (e.g., limited provision for NMT). Ways must be found for the ATC to pay for itself.

5.6.3. LUMS Resources

5.6.3.1. Key Attributes

Albeit the SM LUMS human resources have been strengthened over the immediate past, the resources to manage the ATC process and LUM applications will be considerable.

5.6.3.2. Opportunities

Given the unique social and corporate capital of Stellenbosch, directly impacted by the project; the extent of the project; and its potential value add, there is an opportunity to enhance municipal LUMS capacity with ATC specific enabling institutional arrangements (while recognising and respecting municipal accountability for LUMS).

13 From WCG: Socio-economic profile, Stellenbosch Municipality, 2019

5.6.3.3. Constraints and Actions Required

In parallel with the LSDF, the need for ATC specific institutional arrangements enabling of the SM should be explored.

5.7. Synthesis

The paragraphs below synthesise the status quo in relation to the ATC development area.

Development potential

- The ATC offers significant development potential and can meet a range of settlement development and citizen needs in Stellenbosch.
- Conceptual work indicated the potential of approximately 3m m² of bulk, a population of some 50 000, and more than 13 500 dwelling units.

Policy alignment

- In its location and intent, the project is aligned with national, provincial, and local integrated and sectoral built and natural environment statute, policy, and plans.
- This embraces broader spatial and non-spatial objectives, including protecting natural and agricultural resources, compacting settlements for greater efficiency, integrating communities traditionally spatially dislocated from areas of opportunity, a focus on building in a manner that supports NMT and public transport, the adaptive re-use of existing assets, growing the economy through infrastructure investment, and public-private partnerships in development with meaningful public benefits accruing from publicly allocated development rights.

Timeous and urgent

- The project is timeous and urgent as it occurs at a time when major landholdings in town have become available for alternative use owing to changes in the broader business and

logistics context of previous/current users, and specifically that of the wood and wine industry.

- Covid-19 has assisted in making the case for the ATC project. In some ways, it has brought the future in sight; a future Stellenbosch of deepening community need, one where critical challenges have not been addressed appropriately.
- It is one of a deepening need for housing and livelihood opportunity, including jobs, education, and the recognition of various forms of cultural expression. Deepening crime and other forms of social malaise is likely. There will certainly be increased pressure on public and private resources (whether those of most institutions or individual households).
- The underlying reasons for embarking on the ATC project remain, are becoming more pronounced through Covid-19, and more in need of concerted attention.

Building on local precedent and social capital

- The project can build on considerable local precedent and social capital for enabling innovative, transformative and catalytic change.
- This includes establishing the US; the protection of historic buildings and precincts in town (today significantly contributing to Stellenbosch's unique character and tourism economy); and the establishment of the wine industry.
- It also recognises the unique social capital and energy of Stellenbosch, including:
  - Corporations and institutions (with leadership) of international and national stature, some who owns and controls critical land parcels of the ATC and focused on sectors which can add significant value to settlement development and management processes.
  - Numerous community- and philanthropy-based initiatives addressing urgent citizen needs and expands local opportunity, with or without government assistance.

Integrated spatial contributions to local challenges

- Given the relationship between limited supply for affordable housing in Stellenbosch and challenges such as worker commuting from elsewhere, ways need to be found to make housing opportunity to be provided available to local workers.
- Redevelopment of the area provide a significant opportunity to increase access to housing for lower income groups – specifically those qualifying for "affordable" housing – and students.

Spatial integration

- Integration of the ATC area with Stellenbosch town is possible with bridging at selective places.
- There is an opportunity to connect Papegaaiberg with Du Toit Road/Victoria Street – forming a "university avenue" – and Jan S Marais Park.
- Integration between parts of the site is possible through connecting Distillery Road with George Blake Road as well as creative use of the river corridor.
- The NMT network of the ATC should be integrated with – and expand – that of Stellenbosch town.

Equity and balance in development

- Arguably, all parts of the ATC area have relatively equal potential to accommodate a similar range of uses.
- With the above in mind, relatively similar rights should be allocated across the area, including obligations towards public benefit uses such as affordable housing.
- Given the extraordinary demand for student housing in Stellenbosch, it will be prudent to distinguish between affordable housing for non-students and student housing in ATC land use allocations and yields.

The required planning and development process

- Given the extent of development opportunity provided by the ATC, the prevailing approach to development and applications for enhanced development rights where each landowner operates on his/her own will not maximise landowner returns nor public benefit.
- The development process needs to recognise:
  - A long roll-out period, with market conditions and societal needs shifting during the development period.
  - Upfront security for landowners on the overall rights to be allocated, associated core obligations (contributions to be made in "exchange" for the rights allocated), and processes.
  - A clear understanding of how the exercising of development rights relates to the provision of infrastructure and other public contributions.

Engineering services

- Existing infrastructure in the vicinity of the ATC could be enhanced and expanded to service the development. This work will also fulfil needs in surrounding areas.
- It appears that some development can start without extensive bulk infrastructure improvements.

- In the interest of the feasibility of attaining the full development potential of the ATC area, it is important that early development is not agreed to without a broader understanding and agreements related to overall infrastructure needs and contributions.

Movement and Transport

- While the development should provide for vehicular connections and integration with the rest of Stellenbosch, the overall emphasis should be on enhanced public transport, NMT, and walkability.

Development contributions

- Over and above infrastructure development contributions, government is legally permitted to ask for public benefit contributions in exchange for enhanced development rights allocated (including affordable housing, public facilities, and environmental remediation actions).
- To enable a just and defendable determination of public benefit contributions, the value-add of enhanced development rights need to be determined.

Funding

- Earlier work has indicated that the project can fund its own infrastructure servicing needs through the extent of development contributions payable, with sizeable funds "spare" for allocation to remedial or new infrastructure work in adjacent areas.
- Thus, the project should not be dependent on or be a drain on scarce government resources, understandably required to address needs in many other areas of Stellenbosch, particularly underserviced areas.

Respecting what exists

- By focusing new development on disused and underutilised land and assets west of Stellenbosch town, the project will add to the ability to protect and conserve the historic old town.
- Albeit few buildings, structures, and precincts carrying formal conservation status exist in the area, there are various elements that contribute to place character that can be incorporated into the proposed development through adaptive reuse, to add value and contribute to the making of a special place which recognises aspects of national and local history.

Environment

- To maximise the contribution of the Plankenbrug River to the overall development as a public amenity, upstream pollution and flood attenuation measures are required.
- There is an opportunity for Papegaaiberg to become a core recreation space where biodiversity is celebrated, accessible to the ATC and rest of Stellenbosch. For this opportunity to be realised, a plan and associated resources is required.
- Development obligations related to the environment should distinguish between public remedial actions and obligations required and affecting all (e.g., restoring water quality of the Plankenbrug River), and actions and obligations related to individual landowners and rooted in the previous operations of specific enterprises (e.g., asbestos removal and possible soil contamination at Bergkelder).
- Redevelopment of the ATC area provides the opportunity to promote green services (including rooftop solar generation, sustainable urban drainage systems, and indigenous urban landscaping).

Supportive institutional arrangements

- SM is unlikely to have sufficient dedicated resources for LUM required by the ATC (especially if speedy approvals are to be guaranteed as an incentive to development). Given the extent and value add of the project, anticipated roll-out period, and resources of key landowners, there is an opportunity to establish ATC dedicated institutional arrangements structured to enable and enhance the SM LUMS and related LUM accountability.
- Similarly, enabling institutional mechanisms may be required to manage the allocation of public benefit contributions emanating from the development.

Part 6.

Vision, Concept and Development Framework

6. Vision, Concept and Development Framework

6.1. Vision

The working vision for the ATC area is:

An ATC developed as:

- A proactive intervention to address needs in Stellenbosch, including fixing the mistakes of the past and enabling equitable acces to urban opportunity for all citizens.
- An integrated, inclusive environment for living, work, and enjoyment.
- A pro-active partnership between the public, private, and community sectors in response to citizen needs and national, provincial, and municipal policy.
- A place which embodies and expands our best knowledge of what constitutes good, equitable, and efficient settlement.
- A "new town in town" in Stellenbosch; integrating currently fragmented parts of the town, exploiting underutilized resources, and based on non-motorized and public transport.

In the process, what is held dear about Stellenbosch is respected and expanded.

6.2. Strategic Outcomes

Development of the ATC area seeks the following strategic outcomes:

- A vibrant, compact, and efficient urban district, respectful of the environment and history.
- Increased access to livelihood opportunity for ordinary citizens.
- Seamless integration with surrounding areas.
- Financial sustainability.
- Active partnership between stakeholders.
- A clear development process with speedy decision-making.

6.3. Concept

Diagram 3 illustrates the ATC conceptually.

A linear new district within Stellenbosch is envisaged, to the west of the main town and stretching from the old Sawmill and Droë Dyke in the south-west to Kayamandi and beyond in the north, adjacent to and straddling (in places) Adam Tas Road, the R44, and railway line.

The overall area is organised as district or precincts – like a "string of beads" – along a central movement system comprising road, rail, and NMT facilities. The corridor retains west-east and north-south vehicular and rail movement (both destined for Stellenbosch town and through movement), and can contain areas for storing vehicles, with occupants dispersed

"The Adam Tas Corridor is the start of Stellenbosch's emerging urban transformation district and the vision is to create an integrated urban-development corridor that is liveable, safe, resource-efficient, socially integrated, economically inclusive and globally competitive, in which all citizens can actively participate".

Kelvin Campbell (Urbanist and STIAS Fellow)

"A project like the new city corridor for Stellenbosch will need a simple purpose and clear principles.

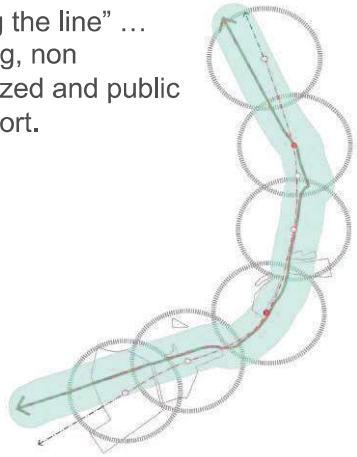
The purpose is to enlarge the commons in Stellenbosch, to make Stellenbosch liveable for all. The purpose should declare that we can change and will change.

Clear principles should enable public and private agencies and the public to collaborate to innovate; should encourage people to expand the commons rather than have the process stifled by the system; should mobilise hidden assets; should encourage doing and learning by doing; should focus on continuous incremental change; and should build a common platform to share learning and evolve the system. Most people want to do what is right. Most people understand honesty, fairness and will support it if the goal is to truly expand the commons."

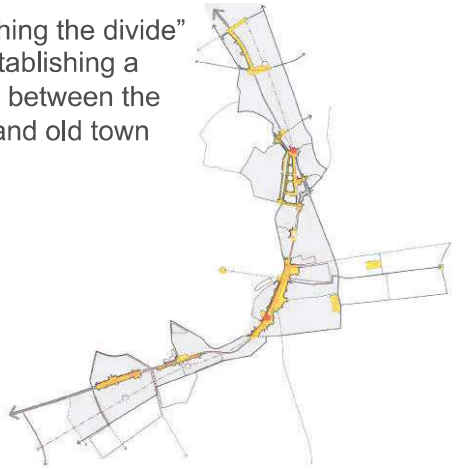
Hannes van Zyl (Stellenbosch resident, entrepreneur, and philanthropist)

ATC: Five key design ideas …

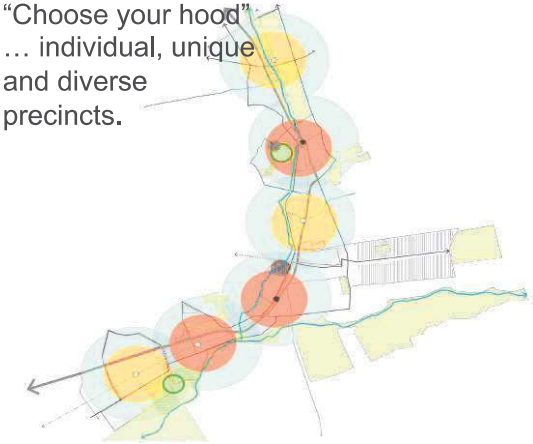
1. "Living the line" … walking, non motorized and public transport.



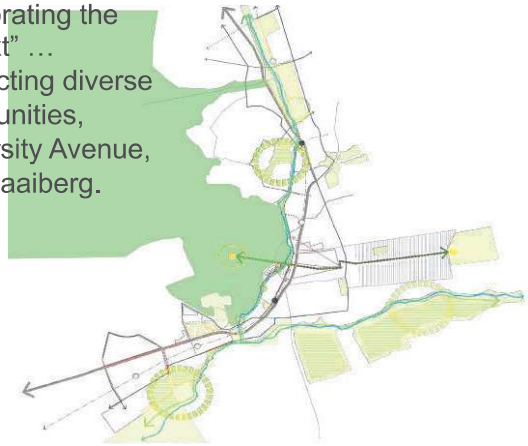
2. "Stitching the divide" … establishing a seam between the new and old town



3. "Choose your hood" … individual, unique and diverse precincts.



4. "Celebrating the context" … connecting diverse communities, University Avenue, Papegaaiberg.



5. "A state of becoming" … starting at different places towards a bigger whole.

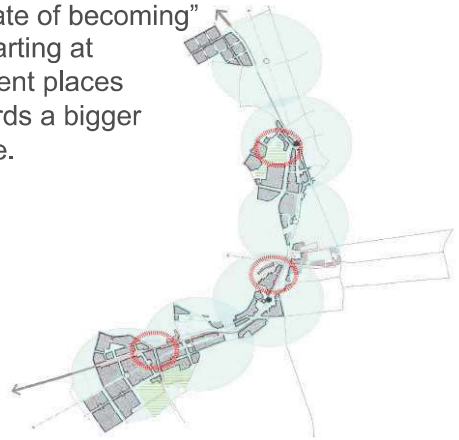


Diagram 3. Five key design ideas consituting the concept for the ATC

Five key design ideas underlie the concept:

1. **Separate but linked districts, focused on walkability, NMT and public transport, organized linearly along the rail line and supporting movement routes.**
2. **Connections or "stitching" of the new development with the old town through intersections and crossings (both NMT and vehicular) at selective points.**
3. **Districts based on unique character (including the re-use and celebration of historic places).**
4. **Connecting and exposing key places, including Papegaaiberg and the University (through a "university avenue").**
5. **Commencing development at places of high opportunity (particularly the rail stations) and growing outwards from there.**

into Stellenbosch via public and NMT. The ATC's central movement system is integrated with that of the rest of town through at grade intersections or bridges of different kinds at select points.

Precincts are centered on current or future rail stations/transport interchanges (all part of the central movement corridor) with surrounding development within walking distance from such interchanges. Overall, development within precincts is mixed – in its distribution horizontally across space, vertically within buildings, and in the size of spaces offered – and high density, up to four to six levels in height.

Nevertheless, the ATC is not homogenous along its length, with uses and built form responding to existing conditions and its relationship with surrounding areas. For example, the most intense development is envisaged in the Bergkelder area, centrally situated to the corridor. In other areas, special existing elements such as the vineyard adjacent to Oude Libertas, are retained. Droë Dyke and the precinct north of Kayamandi are envisaged as the most residential in activity mix, while Papegaaiberg retains its character as a natural environment.

Elements of the natural environment are integrated with the development, specifically through a network of public spaces and NMT routes. Papegaaiberg is a central feature of the ATC, envisaged as a core recreation space where biodiversity is celebrated, and accessible to the ATC and rest of Stellenbosch via NMT routes.

Structurally, Papegaaiberg forms part of a continuous west-east "public way"; a NMT route connecting the ATC with the old town via bridging the rail and R44 in the vicinity of Bergkelder/Van der Stel and continuing along Victoria Road – forming a "University Avenue" – to link with Jan S Marais Park/ STIAS. The historic street grid and spaces/places of the old town, including Die Braak and Rhenish Complex, intersects with University Avenue. The Plankenbrug River also intersects with this public way and forms a south-north riverside amenity and NMT route, linking precincts of the ATC with the existing and planned system of riverside routes along the Eerste River.

Housing, in the form of apartments serving different income brackets and household types, form part of each precinct. Public facilities, of design standards befitting a dense urban environment, are distributed throughout the area, and located close to stations/transport interchanges. Sports fields serving the area may be centralized in one or two places, linked to the NMT system.

Along the ATC as a whole – again depending on local conditions – significant re-use of existing buildings is envisaged. This contributes to diversity – in built character and activity (as reuse offers the opportunity for great variety of spaces) – as well as retaining and celebrating aspects of the industrial use history of the area.

Owing to its extent, development of the ATC will unfold over many years. Development may start at specific points while other areas are accommodating temporary uses prior to redevelopment. A key consideration in managing the roll-out of development over time is not to close off – through initial decisions – the full potential of the area.

Some current day needs to be considered for the ATC may change over time and must be accommodated with care. A good example is parking for private vehicles. It is anticipated that access to private vehicles – and the concomitant need for storage of vehicles – may change considerably over the development period of the ATC. One option accommodating present day needs for parking may be to centralise parking spaces and provide for parking in structures which could be readily adapted or redeveloped when needs change.

6.4. Development Framework

The overall development framework for the ATC is illustrated in Figure 14. Key aspects of the development framework are expanded upon in the sections below.

6.4.1. A linear district between the adjacent river and movement infrastructure

A linear new district within Stellenbosch is envisaged, to the west of the main town and stretching from the old Sawmill and Droë Dyke in the south-west to Kayamandi and beyond in the north, adjacent to and straddling (in places) Adam Tas Road, the R44, and railway line.

6.4.2. Linked precincts focused on interchange points

The linear ATC development area comprises several precincts, linked to each other and surrounding areas through rail, road and NMT movement infrastructure. Although precincts exhibit distinct characteristics and potential, based on location, use history, and so on, all – except Papegaaiberg and Oude Libertas – is expected to have a mix of uses and relatively high-density development. While precincts are linked, each is proposed to focus on a central interchange point – a station or other transport interchange – within walking distance of surrounding development.

Large parts of the ATC have traditionally been controlled by individual owners, each pursuing focused and relatively homogeneous use of their land parcels. Sawmilling and the wine industry are good examples. So is the conservation status and use of the Papegaaiberg and the institutional nature of Oude Libertas. Thus, the use history of parts of the ATC, together with land ownership, combines to assist in the delineation of precincts. This delineation also enables a clear distinction and allocation of shared and individual responsibility related to implementation of the Development Framework.

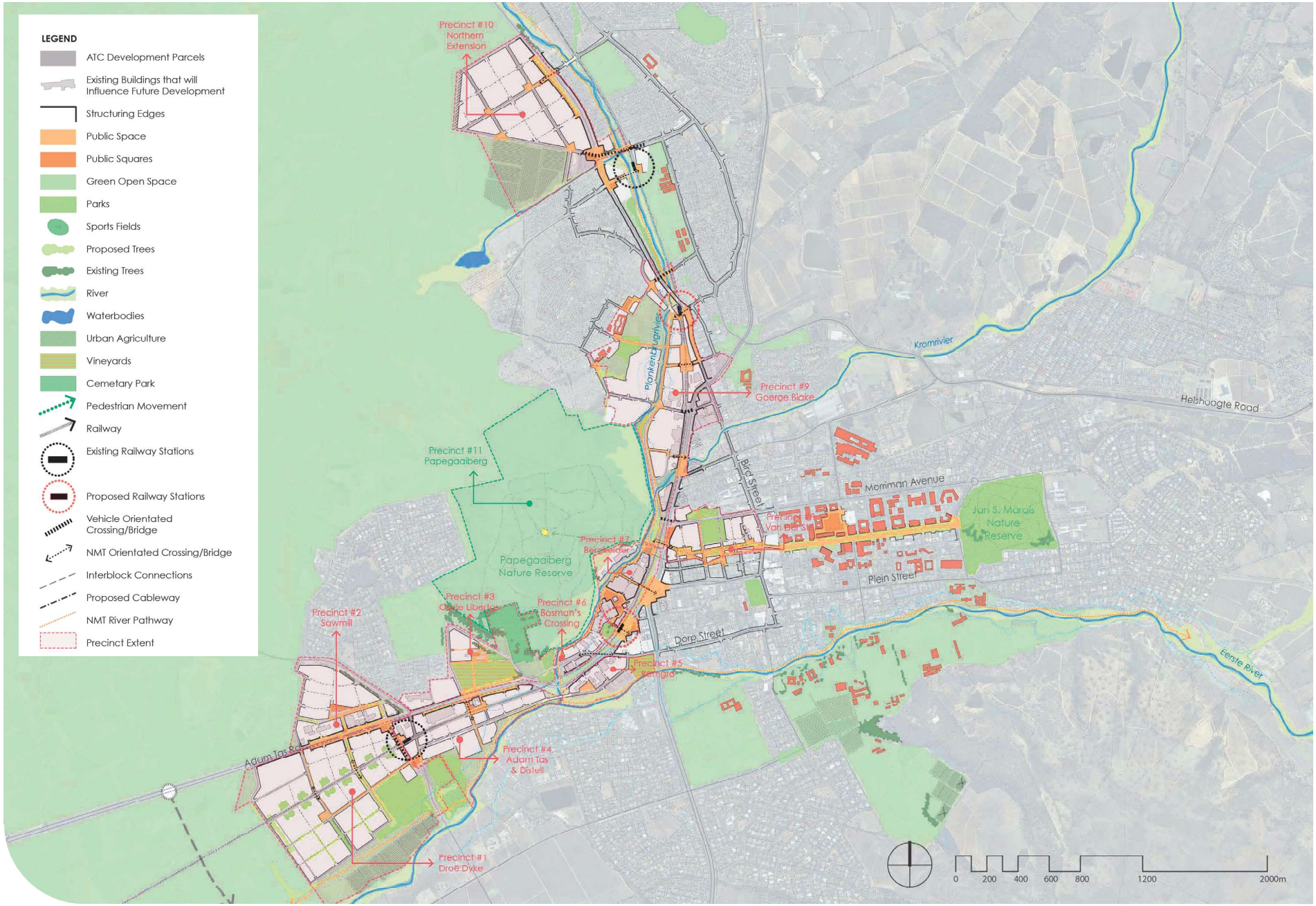


Figure 14. ATC Local Spatial Development Framework

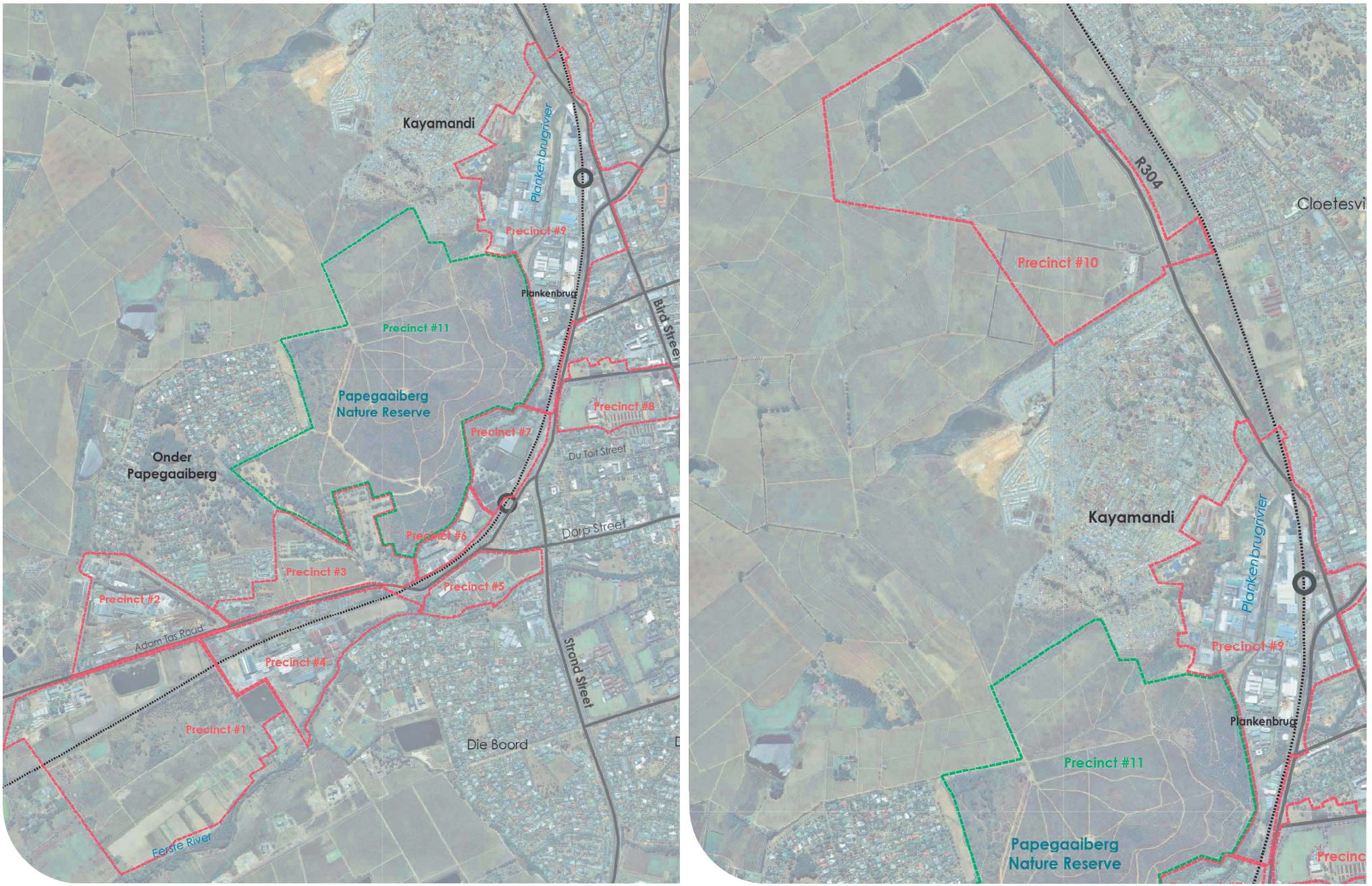


Figure 15. ATC Precincts 1 - 9 and 11 (left) and Precincts 10 in the broader context (right)

The overall character/identity of each precinct is described in the table below.

Table 6. Precinct Character / Identity Elements

PRECINCT	CHARACTER/IDENTITY
Precinct #1 Droë Dyke	A gateway precinct at the south-western entrance to Stellenbosch and the ATC. In general, together with the Northern Precinct, to contain a higher proportion of housing than other precincts, as well as mixed use retail and commercial activities. Some blocks to contain mostly housing. A major focus of formal and informal recreational and sport activities (some of which may serve the ATC and areas beyond) along the river corridor.
Precinct #2 Sawmill	A mixed use commercial and retail precinct, including housing, light industry, workshops and entrepreneurial spaces. Some adaptive reuse of old industrial structures.
Precinct #3 Oude Libertas	A largely institutional use precinct comprising the University of Stellenbosch Business School and Oude Libertas theatre complex, together with the cemetery and historic vineyard abutting Adam Tas Road.
Precinct #4 Adam Tas	A mixed use medium to high density precinct including residential and commercial/retail activity.
Precinct #5 Remgro	A mixed use medium to high density precinct including residential and commercial/retail activity with sensitive incorporation of the Rupert museum and vineyards.
Precinct #6 Bosman's Crossing	A mixed use medium to high density precinct including residential and commercial/retail activity with sensitive incorporation and adaptive re-use of historic structures.

PRECINCT	CHARACTER/IDENTITY
Precinct #7 Bergkelder	A mixed use medium to high density precinct including residential and commercial/retail activity with sensitive incorporation and adaptive re-use of historic structures. Envisaged as a centre of the ATC and location for vehicular/NMT bridging between the ATC and existing development to the east.
Precinct #8 Van der Stel	A mixed use medium to high density precinct including rationalised sports uses and residential and commercial/retail activity with sensitive incorporation and adaptive re-use of historic structures. Incorporation of a new public transport interchange (possibly along Merriman Road).
Precinct #9 Plankenbrug	A mixed use area incorporating new development and adaptive reuse through redevelopment pf individual and consolidated properties currently in multiple ownership. Strong presence of small workshops and industrial spaces.
Precinct #10 Northern Extension	A gateway precinct at the northern entrance to Stellenbosch and the ATC. In general, together with the Droë Dyke Precinct, to contain a higher proportion of housing than other precincts, as well as mixed use retail and commercial activities. Some blocks to contain mostly housing. A focus of formal and informal recreational and sport activities.
Precinct #11 Papegaaiberg	A protected nature area sensitively developed as a central recreational park to contain active conservation, walking and cycling routes, linked to surrounding areas and the broader Stellenbosch NMT network.

6.4.3. Developable Areas

Table 7 indicates the developable area for the ATC and individual precincts. Developable were are calculated based on a block lay-of development parcels for each precinct and excludes riverine corridors, flood plains, vineyards, major routes, the railway corridor, sports fields, and major public open spaces.

A coverage ranging between 65% and 80% was applied to the developable area per block to calculate the available development built footprint and resultant bulk. The coverage percentage applied relates to the proposed density of the block where the lowest density has a coverage of 65% and the highest density a coverage of 80%. High density, perimeter block development is envisaged for most of the corridor. This courtyard typology allows for the maximum use of the site while creating protected parking or play courtyards within the centre of the block. The majority of parking will need to be accommodated as structured parking in high-density blocks and not as surface parking.

6.4.4. Land Use

Given the location of the ATC as part of an already developed area, access to major transport systems, and a strategic objectives of maximising existing land resources and establishing a vibrant, compact, and efficient urban district enabling NMT, land use across the ATC is envisaged as mixed and of relatively high density.

All precincts are to be mixed use, excluding Papegaaiberg. Droë Dyke and the Northern Extension, given location, will contain a higher proportion of residential use than other precincts.

In relation to land use, the groupings of land use in Table 7 have been assumed for preparing the Development Framework.

Table 7. Developable Areas per Precinct

PRECINCT	Block Area (m^2)	Internal Streets (15%)	Developable Areas (before Coverage applied) (m^2)
Precinct #1 Droë Dyke	509 191	76 379	432 812
Precinct #2 Sawmill	164 917	24 738	140 179
Precinct #3 Oude Libertas	69 818	10 473	59 345
Precinct #4 Adam Tas	167 607	25 141	142 466
Precinct #5 Remgro	72 703	10 905	61 798
Precinct #6 Bosman's Crossing	48 782	7 317	41 465
Precinct #7 Bergkelder	99 943	14 991	84 952
Precinct #8 Van der Stel	80 917	12 138	68 779
Precinct #9 Plankenbrug	331 141	49 671	281 470
Precinct #10 Northern Extension	339 627	50 944	288 683
Precinct #11 Papegaaiberg	-	-	-

Table 8. Broad Land Use Descriptions

LAND USE GROUPING	EXPLANATION
Residential	Medium density social housing and inclusionary housing comprising 2-4 storey duplexes or walk-ups with shared courtyards/ internal green spaces.
Mixed use residential	Medium to high density residential apartments with active ground floor use comprising retail and/or other complimentary activities. *Ratio: 80% Residential, 20% Commercial/retail*
Mixed use commercial	Medium to high density commercial activities including retail, hospitality and residential components. *Ratio: 20% Residential, 80% Commercial/retail*
Light industry	Workshops, studios, warehouses and other, light industrial activities integrated into surrounding land uses with minimal segregation and blank facades.
Sports	Sport fields, club houses and other sporting related activities.
Public facilities	Public institutions such as schools, libraries, government services, clinics, community centres as well as cultural institutions (e.g., museums or theatres).

6.4.5. Massing and Density

The broad distribution of densities and building heights across the ATC area is illustrated in Figures 16 and 17. Building heights range from two to six storeys, informed by:

- Land use, where predominantly residential development is envisaged to be two to four storeys and mixed use residential and mixed-use commercial four to six storeys.
- Context, including the presence of buildings to be retain for adaptive re-use, places to be protected through sensitive adjacent development, and location in relation to major transport routes.

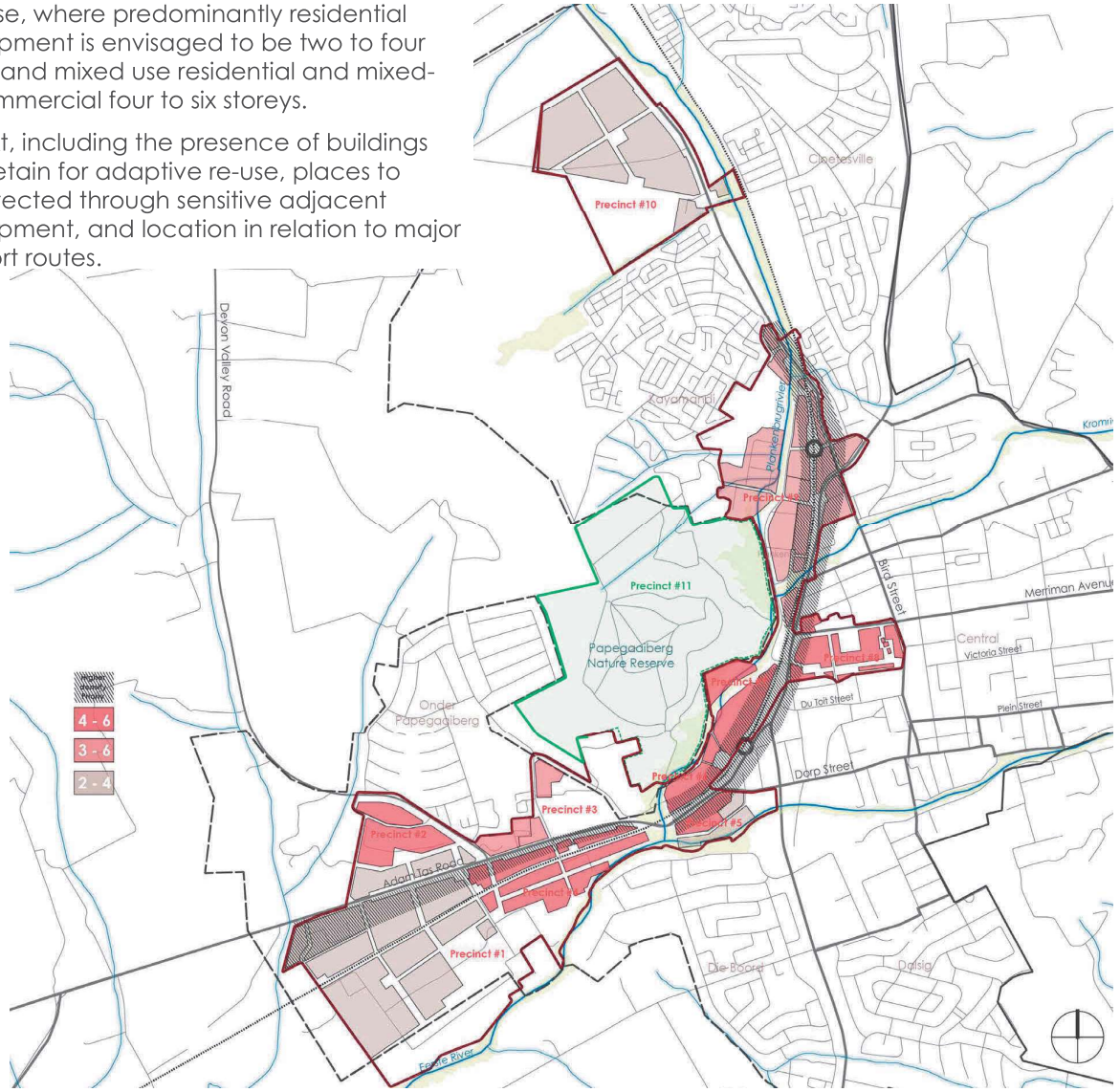


Figure 16. ATC Height Ranges per precinct

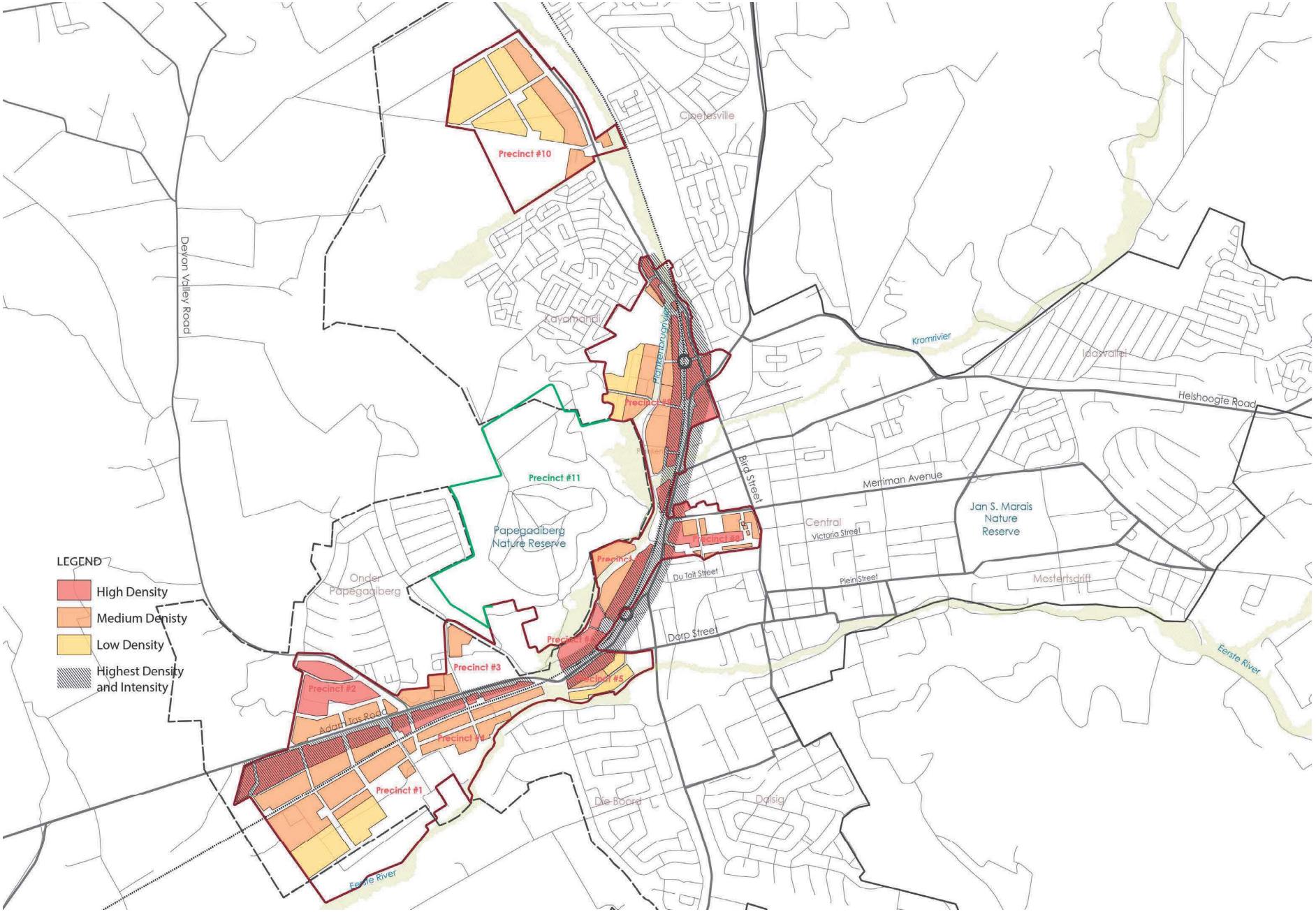


Figure 17. ATC densities per precinct

6.4.6. Bulk

The bulk applicable to the ATC as a whole and individual precincts have been determined following several steps:

- Identification of the m² area of development parcels – within the overall Development Framework – within each precinct based on developable areas (which excludes riverine corridors, flood plains, vineyards, major routes, the railway corridor, sports fields, and major public open spaces).
- Distinguishing between two types of development parcels/areas identified: green fields and brownfields (where future adaptive reuse will be applicable, also informed by heritage inputs).
- Application of an efficiency ratio of 85% to brownfields parcels to accommodate adaptive reuse.
- A reduction of 15% from the area of development parcels to accommodate internal streets and circulation.
- An application of a building height range to development parcels.
- Application of land use categories proportionally to the total bulk for each precinct (informed by the envisaged character of each precinct).
- Calculation of the bulk for each land use and each precinct, reflected as a minimum and maximum.
- Application of a range of nett densities to the area/bulk assigned for residential use, providing an estimate number of units.

Bulk calculations indicate both a minimum and maximum bulk per precinct. This enables flexibility in implementation – given changing market conditions over the period of implementation – while still attaining the urban qualities pursued and financial sustainability.

The apportioning of land use and bulk for the ATC area is summarised in Table 9 below.

Table 9. Land Use Bulk Summary for the ATC as a whole

LAND USE	% ALLOCATION	MINIMUM BULK (m²)	MAXIMUM BULK (m²)
Residential	**12**	**372 971**	**528 793**
Mixed use residential	**28**	**884 948**	**1 250 285**
Residential	*80*	*707 959*	*1 000 228*
Commercial / Retail	*20*	*176 990*	*250 057*
Mixed use commercial	**29**	**908 685**	**1 227 516**
Residential	*20*	*181 737*	*245 503*
Commercial / Retail	*80*	*726 948*	*982 013*
Light industry	**16**	**500 076**	**669 315**
Sports	**3**	**104 551**	**143 809**
Public facilities	**12**	**375 427**	**526 881**
	TOTAL	**3 146 659**	**4 346 599**

LAND USE	% ALLOCATION	MINIMUM BULK (m²)	MAXIMUM BULK (m²)
Residential	**40**	**1 262 667**	**1 774 524**
Commercial	**29**	**903 938**	**1 232 070**
Light industry	**16**	**500 076**	**669 315**
Sports	**3**	**104 551**	**143 809**
Public facilities	**12**	**375 427**	**526 881**
	TOTAL	**3 146 659**	**4 346 599**

The apportioning of land use and bulk for individual precincts is summarised in Table 10 below.

A workbook of all developable area and bulk calculations for the area and precincts is included as Appendix B.

Table 10. Land use/bulk summary for individual precincts

PRECINCT	Residential		Mixed Use Residential		Mixed Use Commercial		Light Industry		Sports		Public Facilities	
	Min Bulk m^2	Max Bulk m^2	Min Bulk m^2	Max Bulk m^2	Min Bulk m^2	Max Bulk m^2	Min Bulk m^2	Max Bulk m^2	Min Bulk m^2	Max Bulk m^2	Min Bulk m^2	Max Bulk m^2
Precinct #1 Droë Dyke	234 758	328 902	264 103	370 014	-	-	-	-	29 345	41 113	58 690	82 225
Precinct #2 Sawmill	-	-	107 624	172 830	122 998	197 520	61 499	98 760	-	-	15 375	24 690
Precinct #3 Oude Libertas	-	-	24 947	42 371	42 371	42 371	-	-	-	-	33 263	56 495
Precinct #4 Adam Tas	-	-	158 305	204 295	158 305	204 295	39 576	51 074	-	-	39 576	51 074
Precinct #5 Remgro	-	-	24 857	33 185	49 714	66 370	24 857	33 185	-	-	24 857	33 185
Precinct #6 Bosman's Crossing	-	-	45 114	56 392	39 474	49 343	22 557	28 196	-	-	5 639	7 049
Precinct #7 Bergkelder	-	-	-	-	138 641	190 085	46 214	63 362	-	-	46 214	63 362
Precinct #8 Van der Stel	-	-	75 716	104 677	97 349	134 584	-	-	21 633	29 908	21 633	29 908
Precinct #9 Plankenbrug	-	-	-	-	213 761	276 317	305 373	394 739	30 537	39 474	61 075	78 948
Precinct #10 Northern Extension	138 213	199 891	184 283	266 522	46 071	66 630	-	-	23 035	33 315	69 106	99 946
Precinct #11 Papegaaiberg	-	-	-	-	-	-	-	-	-	-	-	-

6.4.7. Residential Units

The number of residential units was determined based on the following density ranges:

- 160 units/hectare: very high density
- 140 units/hectare: high density
- 120 units/hectare: medium density
- 100 units/hectare: lower density

To determine a minimum number of units an average of 125 units/hectare was used and for the maximum 145 units/hectare.

Table 11 indicates the minimum and maximum bulk and number of residential units per precinct.

In line with emerging WCG and SM policy, it is envisaged that a meaningful proportion of residential units to be provided constitute affordable and inclusionary housing, benefitting specific income and beneficiary groups.

The final proportion of affordable and inclusionary housing will be dependent on financial viability, to be tested by landowners and the SM. Ideally, up to 30% of housing to be provided should be affordable and inclusionary (excluding student housing).

6.4.8. Aspects of urban form

As indicated above, high density, perimeter block development is envisaged for most of the corridor. This courtyard typology allows for the maximum use of the site while creating protected parking or play courtyards within the centre of the block. See Figure 18 and the supporting ATC guidelines document for further development precedent per precincts.

6.4.9. Norms and standards

To achieve project objectives, norms and standards for the provision of public facilities will need adjustment fitting of an urban, high-density context. Specifically, facilities such as schools need to be "urban" in nature, comprise multi-storey development, and share sports fields on the periphery of the development or elsewhere in Stellenbosch.

Table 11. Minimum and maximum bulk and number of residential units per precinct

PRECINCT	Minimum Density (units)	Maximum Density (units)
Precinct #1 Droë Dyke	3 997	5 181
Precinct #2 Sawmill	659	818
Precinct #3 Oude Libertas	232	288
Precinct #4 Adam Tas	1 952	2 329
Precinct #5 Remgro	203	240
Precinct #6 Bosman's Crossing	219	264
Precinct #7 Bergkelder	137	173
Precinct #8 Van der Stel	345	428
Precinct #9 Plankenbrug	267	322
Precinct #10 Northern Extension	2 273	2 744
Precinct #11 Papegaaiberg	-	-
TOTAL	10 282	12 787

Precedent of housing typologies appropriate to the ATC context (refer to the supporting ATC guidelines for further urban design and landscape precedent per precinct and sources of all projects)

- Compact, multi-functional facilities;
- Surveilled and safe play areas;
- Sites wrapped with residential;
- Clustering of facilities e.g. public library, adult education, community hall etc.

Figure 18. Precedent of Urban Schools (refer to the supporting ATC guidelines for further precedent per precinct and sources of all projects)

6.4.10. Landscape and Historic Character

The landscape and heritage review of places and buildings for the ATC revealed eleven areas of distinct, broad landscape and historic character areas. These, illustrated in Figure 19, are:

1. Urban-rural transition and gateway (western entry to Stellenbosch).
2. Timber processing (the sawmill from the early 20th century).
3. Historical set piece and vineyard forecourt, including an area of public memory, reflection, passive recreation, and historical river crossing (the cemetery and Bosman's Crossing).
4. Wine processing (Stellenbosch Farmers Winery mid to late 20th century)
5. Interface with historic core (the Dorp Street point of entry).
6. Brandy production (early to late 20th century) and the historical millstream network (Oude Molen).
7. Wine cellar and brandy production (mid to late 20th century, specifically Bergkelder), and movement infrastructure (including the station area).
8. Interface zone with historic core (including the Van der Stel entry to the area).
9. Industrial expansion (late 20th century to the north), including historical settlement and displacement (the Bird Street point of entry to Stellenbosch).
10. Urban-rural transition and gateway (northern area).
11. Passive recreation and retreat (Papegaaiberg).

The following sheets outline the heritage significance, character, and proposed heritage indicators for each of the areas.

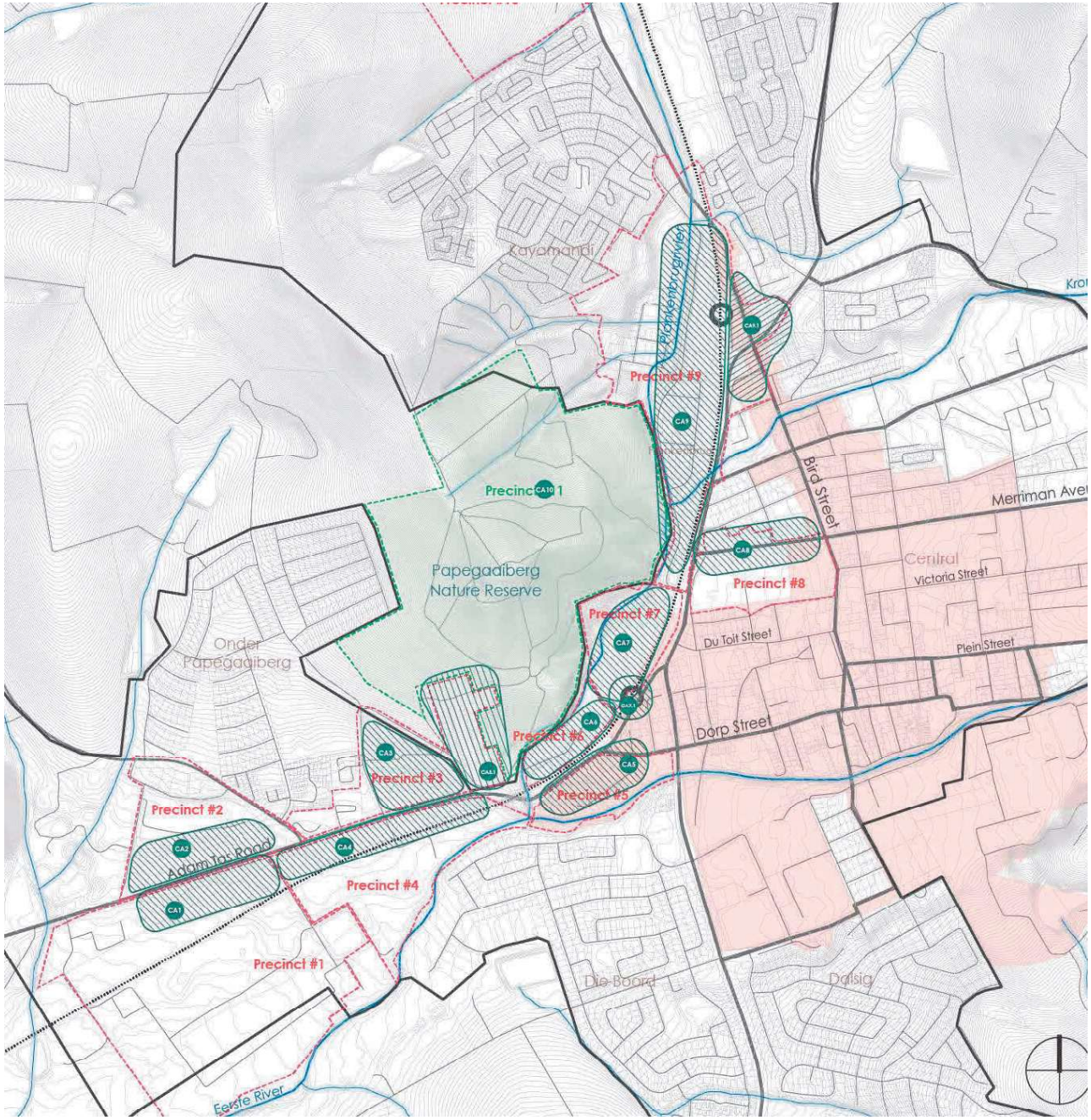


Figure 19. ATC Character Areas Map

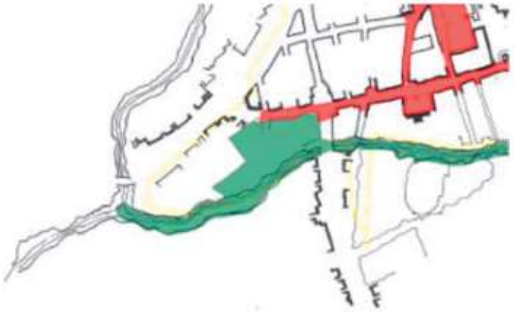
Name	Heritage Significance Grading	Character Statement Description and Character Forming Elements	Heritage Indicators Capacity to Accommodate Change & Absorb Development
CA 1 **GATEWAY CONDITION** **Rural-urban transition and gateway (west)**	Role as point of entry to Stellenbosch from the west. Landscape elements contributing to the Stellenbosch landscape context; flanked by mature trees creating a green frame with views eastwards towards the mountains. Green edge conditions contrasting with hard built edge to the north and west. Significance limited to scenic envelop and associated long views towards the Hottentots Holland Mountains. Entry point to Klein Vredenburg (Grade II).	Line of stone pines and other mature trees framing long views towards the Hottentots Holland Mountains to the east. Green edge conditions in contrast to hard built form immediately to the north and west.	Maintain treed edge along Adam Tas Road. Establish building setback conditions to maintain transitional landscape quality between urban and rural conditions. Maintain views through towards the Hottentots Holland Mountains to the east based on a combination of setback and height controls. Maintain visually permeable edge conditions. Controls on signage to minimize visual clutter (e.g.no third-party signage) Respect and acknowledge entrance to Klein Vredenburg. Tree maintenance and planting plan.  (SHI 2018)

Name	**Heritage Significance** Grading	**Character Statement** Description and Character Forming Elements	**Heritage Indicators** Capacity to Accommodate Change & Absorb Development
CA 2 **SAWMILL SITE** **Timber processing (early 20th C)**	Industrial technological significance associated with the timber industry in the early 20th century and its role in the development of the fruit industry in terms of packaging. Landmark value as a highly visible industrial site in Stellenbosch. Distinctive edge conditions comprising a continuous 2m high street boundary wall with perforated panels and columns contributing to a pattern of edge conditions with particular solid to void relationships; 1930s character of perforated wall panels. No individual structures worthy of formal protection. Relic site with the buildings being vacant and derelict. Small core group of structures representative of the role of the site in the timber industry. Significance resides is in associations with timber processing/manufacturing and its resulting built form character.	Cross section of trees adjacent to the roadway, continuous wall treatment with a particular rhythm of solid to void, and long linear sheds behind. Tight, modular, orthogonal layout of buildings with a relatively fine grain, high coverage factor, density gradient across the site and varying figure ground relationships. Relatively low-rise nature of buildings flanking Adam Tas Road.	 Sawmill HIA (Snelling 2015) Retention and adaptive reuse of core grouping (C). Retain the wall along Adam Tas Road to as great an extent as possible with limited points of entry. Maintain the existing line of trees. Maintain hard building edge along Adam Tas Road with a limited building line with 2 storey height control on buildings immediately flanking the site. Maintain the manufacturing and light industrial character of the area as a major component of a mixed-use precinct. Maintain the built form character in terms of figure ground relationships.

Name	Heritage Significance Grading	Character Statement Description and Character Forming Elements	Heritage Indicators Capacity to Accommodate Change & Absorb Development
CA 3 **OUDE LIBERTAS** **Historical set piece and vineyard forecourt** **CA 3.1** **CEMETERY** **Public memory, reflection, passive recreation, historical river crossing) (cemetery and Bosman's Crossing)**	High historical, architectural significance. Distinctive landmark at entry to Stellenbosch. Distinctive setting of the architectural ensemble and its generous vineyard forecourt; vineyard forecourt contributing to sequencing of solid to void, open to closed relationships along this section of Adam Tas Road. High historical and social significance of the cemetery in terms of layering, interdenominational use and nature of open access. Cemetery contributes substantially to a parkland setting immediately abutting a high use zone to the east. Heritage value of historical patterns of access and river crossing. Heritage value of the archaeological 'monument' as the site of an ESA site discovered in 1899 (PHS Grade II)	Formal landmark architectural ensemble with a green forecourt. Cemetery set within a parkland setting. Historical route network and river crossing. Vineyard foreground and rows of mature trees create the foreground to the site, which is set against a dark, forested backdrop on the slopes of the Papagaaiberg.   SHI (2018)	 Google Earth (2021) Maintain green forecourt to Oude Libertas; no new buildings to be permitted in this zone. New buildings to be located behind the line established by the Oude Libertas complex and homestead. New interventions must not visually overwhelm the complex. New interventions to be complementary to the historical cultural and educational role of Oude Libertas. Maintain the open access and parkland nature of the cemetery with minimal edge treatments. Opportunities for memorialization as part of the public space realm.

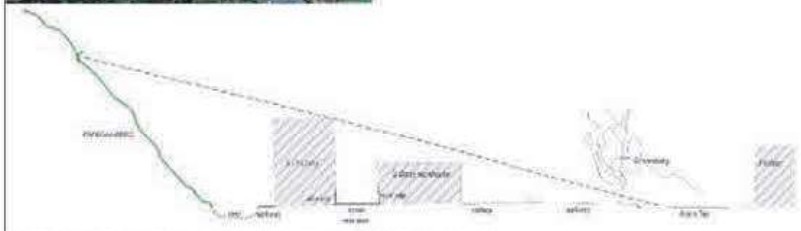
Name	Heritage Significance Grading	Character Statement Description and Character Forming Elements	Heritage Indicators Capacity to Accommodate Change & Absorb Development
CA 4 **DISTELL** **Wine processing (Stellenbosch Farmers Winery mid to late 20th C)**	Site of an early 20th century black settlement referred to as Mon Repos or Platteklip Location c1918. Site of Stellenbosch Farmers Winery (SFW) since 1925 (Oude Libertas farm) until the merger with Distillers Corporation to form Distell in 2000. Social historical value with SWF as an early agricultural co-operative dating to the post WW I period playing a major role in the promotion of the Stellenbosch wine industry for white farmers through the centralisation and regulation of wine production and markets, including the export market.	Boundary treatment and gateway; pillars, visually permeable panels framing views of buildings immediately adjacent.   Google Earth street view (2021) Formal composition of architectural elements and boundary treatments. Part of a sequence of hard and soft edge treatments along Adam Tas with Distell providing a hard agro-industrial edge in contrast to the green forecourt to the Oude Libertas to the west. Entrance to Klein Vredenburg providing a strong edge to the south.	 Google Earth (2021) Maintain edge treatment along Adam in terms of pillars, visually permeable panels and planting, and the interface with the Cape Revival complex including the rhythm of gable ends, elaborate gateways and neo classical central entrance piece. Retain the Cape Revival complex facing onto Adam Tas with a range of adaptive reuse options accommodated. Soft edge treatment along entrance road to Klein Vredenburg to screen hard parking areas and loading areas. Consider opportunities for a continuous walkway adjacent to the Eerste River and its role as a seam in linking precincts as part of a continuous public realm including the recreational role of the Distell Cricket Club.

	Potential grading of a component of the Cape Revival complex addressing Adam Tas. Relationship between the Cape Revival complex and Adam Tas in terms of strong place-making and landmark qualities. Architectural value of the complex in term of the use of Cape Revival architectural elements related to the branding of SFW in the export market. Vast majority of buildings not worthy of formal heritage protection, particularly to the south of the railway line. Social recreational role of the Distell Cricket Club.	Eerste River forming the southern edge and the location of the Distell Cricket Club adjacent to the river creating a soft interface.	 View of Distell from Distillery Road

Name	**Heritage Significance** Grading	**Character Statement** Description and Character Forming Elements	**Heritage Indicators** Capacity to Accommodate Change & Absorb Development
CA 5 **DORP STREET** **Interface with historic core (Dorp Street point of entry)**	Major point of entry into the historic core of Stellenbosch via Dorp Street. Dorp Street having high heritage value as one of the main structuring elements of the historic core. Vineyard setting at point of entry has place-making qualities in terms of providing a green framing element to the historic core.	Juxtaposition of agro-industrial and commercial buildings, cultural centre and ornamental vineyard setting to the Rupert Museum. Location between two structuring elements (Dorp Street and Eerste River) and the strategic location of the Rupert Museum as a semi -public institution, which could form part of a continuous public realm relative to the river and pedestrian network.  SHI (2018)	  Google Earth (2021) Maintain green forecourt to the Rupert Museum and its landmark qualities. Consider the opportunities for a continuous landscape walkway adjacent to the Eerste River and the role of this river corridor as a seam in linking precincts associated with the river. Role of Eerste River as a major structuring element of the historic core.

Name	Heritage Significance Grading	Character Statement Description and Character Forming Elements	Heritage Indicators Capacity to Accommodate Change & Absorb Development
CA 6 **BOSMAN'S CROSSING AND OUDE MOLEN** **Brandy production (early to late 20th C); historical mill stream network**	Collection of buildings worthy of retention and adaptive reuse grouped along a tight linear corridor: Cape Revival House 1925 Grade IIIA; Mill House 1965 Grade IIIC; Warehouse 1950s Grade IIIC; Vinlab 1923 Grade IIIC. Juxtaposition of river and Papegaaiberg with a tight linear corridor comprising the river, road network and railway, industrial buildings, mountain edge). Historical reference to old mill and millrace.	Mixed-use activity comprising medium high density residential activity (6 stories with ground level retail) in immediate juxtaposition with light manufacturing. Distillery Road as an extension of Bosman's Crossing and the original route into Stellenbosch from the south and its role as linking or binding element though the southern section of the corridor. Sequence of hard and soft spaces; soft green crossing, hard built edges; Oude Molen forecourt; views towards Papegaaiberg backdrop.	Retention of views towards the Papegaaiberg. Integrate the riverine corridor with a pedestrian linkages and opportunities for access into the Papegaaiberg, particularly near Bosman's Crossing Retention of the historic core grouping and associated spaces with their integration into a public space network (diagram below) Extension of Bosman's Crossing and Distillery Road as a linking or binding element as part of the street network though the corridor (see diagram below) Two stories on ATC retaining views towards the Papegaaiberg with higher density along the river (see cross section below). Continue good precedent at Bosman's Crossing with a residential apartment urban typology adjacent to the river, sequencing of open and close spaces and mix of uses particularly light manufacturing/artisanal activity, e.g. foundry and furniture making.  Postlethwayt & Snelling (2020)

Louw & Dewar Urabn Design Framework for Oude Molen (2016)



Indicative Cross Section through Bosman's Crossing

Name	Heritage Significance Grading	Character Statement Description and Character Forming Elements	Heritage Indicators Capacity to Accommodate Change & Absorb Development
CA 7 **BERGKELDER** **Wine cellar and brandy production – mid to late 20th C**	Historical, technological and scientific contextual value (Grade IIIC) Setting of the Plankenbrug River and slopes of the Papegaaiberg into which the Bergkelder is inserted. Technological and scientific innovations from the late 1960s. Role in increasing international connections, primarily related to viticultural, oenological and marketing developments, particularly post 1992. Collection of buildings dating from the mid-20th century of a particular architectural typology and place-making quality (morphology, spatial relationships, riverine and mountain setting). Equipment related to the evolution of wine-making and maturation techniques from the mid-20th century. Potential evidence of mill sleut. Industrial archaeological value of the structures.	Industrial buildings relating to the wine industry. Industrial buildings with a particular architectural typology, urban morphology and visual spatial relationship with the river and Papegaaiberg. Group of mid-20th century buildings in the southern portion of the site dating from the first phase of development, approximately from the mid1940s to the 1960s. Buildings have been adapted over time, particularly in terms of height to accommodate changes in technology. 	High degree of resilience and ability of accommodate change. However, not to be treated as a green field site. Retention of the overall grain and texture of the site, i.e. figure ground relationships, to reflect the industrial evolution of the site. Retention of the mid-20th century building grouping for adaptive reuse in a mixed-use environment; could be substantially altered to accommodate new uses yet retaining industrial built form character. Retention of the visual grid, tree lined avenues and stone walled edge conditions as a structuring device, particularly the visual axes towards the Papegaaiberg. Opportunities for inclusion into a high to medium mixed-use development corridor to build on the strategic location of the site.  

CA 7.1 **STATION** **Movement Infrastructure**	Historic significance of the railway network dating to the mid-19th century. Distinctive landmark qualities of the Cape Revival station building and its forecourt.  Google Earth street view (2021)	Movement infrastructure, linear binding element of public infrastructure linking Kayamandi through the corridor to metropolitan Cape Town. Strategic location at the periphery of the historic core and head of a grid of streets defining the western edge of the historic core immediately at the interface with the agro-industrial group of buildings associated with Berg Kelder, thus binding the historic core and the future growth corridor.	Conceptualise as part of a linear linking system associated with the Bosmans Crossing through the Oude Molen Precinct to the station.

Name	Heritage Significance Grading	Character Statement Description and Character Forming Elements	Heritage Indicators Capacity to Accommodate Change & Absorb Development
CA 8 **VAN DER STEL** **Interface with historic core (Merriman and Brid Street point of entry)**	 Precinct # 8 overlaid with Historic Core and Special Streets, Places & Buildings (SHI 2018) Contextual value adjacent to the historic core with is concentration of streets, places and buildings of heritage value. Major entry point into the historic core via Merriman Avenue and Bird Streets with Bird Street being one of the main structuring elements of the historic grid. Green open space in close proximity to the Papegaaiberg (pinch point) at a cross route condition and as part of an integrated green/open space structuring system. Social value of the sports club.	Large recreational open space on the edge of the historic core bounded by streets forming part of its grid system. Mix of land uses including sports facilities, transport hub, retail, corporate and residential.  Structuring elements Zone of intersection between green and urban systems; historic and contemporary conditions.	Medium degree of resilience to accommodate new development recognizing townscape and landscape opportunities and constraints being located immediately adjacent to the historic core with strong visual spatial linkage with the Papegaaiberg and at a cross route condition with a high degree of accessibility.  Avoid the simple "filling in" of open space. Respond positively to the juxtaposition of fine-grained residential fabric (south) and coarse grained industrial fabric (west) as well as the gateway conditions and strategic location of the precinct at the entrance to the historic core and in relation to Bergkelder and George Blake precincts as core components of the growth corridor. Redevelopment of the site must retain a strong green linkage element and contribute to the public open space network of the town.

Name	Heritage Significance Grading	Character Statement Description and Character Forming Elements	Heritage Indicators Capacity to Accommodate Change & Absorb Development
CA 9 **GEORGE BLAKE** **Industrial expansion – late 20th C (north)**	Late 20th century light industrial landscape. Low, if any heritage significance. There are no heritage structures in the area.	No elements that contribute to area character. The only potential elements relate to the stream flowing down from the Papegaaiberg into the Plankenburg river and the gridiron street pattern providing visual and potential pedestrian linkages to the Papegaaiberg.	Considerable capacity to absorb a more intensive pattern of development. Plankenburg riverine corridor and the opportunities for a continuous landscaped pedestrian walkway with cross linkages into Kayamandi to be incorporated into a precinct plan. Similarly, the orthogonal street pattern should be maintained and visual /spatial linkages to the Papegaaiberg enhanced in terms of a grid of views. Web of green and visual connectivity between the Papegaaiberg and the Plankenburg riverine corridor.
CA 9.1 **BIRD STREET** **Historical Settlement & Displacement (Bird Street point of entry)**	Considerable historical social significance in terms of the association with forced removals related to the Group Areas Act in Du Toitsville in the 1960s. Historical and visual significance of the avenue of trees flanking Bird Street and its role as an early access route from Paarl dating from the late 17th century.	Light industrial, heavily trafficked area. The only remaining house of Du Toitsville (69 Bird Street Osman House).  Oak tree avenue on Bird Street and station building and forecourt as last remaining physical elements of Du Toitsville.	Maintain the avenue of oak trees flanking Bird Street, a major point of entry into Stellenbosch from the north. Develop a tree management programme to ensure the long-term protection of the trees. Explore opportunities for the memorialization of the forced removals related to Group Areas in collaboration with the affected community.

Name	Heritage Significance Grading	Character Statement Description and Character Forming Elements	Heritage Indicators Capacity to Accommodate Change & Absorb Development
CA 10 **Urban-transition and gateway (north)**	 Precinct # 10 overlaid with SHI Landscape Units of suggested Grade IIIB heritage value Located in a landscape of suggested Grade IIIB heritage value in terms of the SHI (2018). Aesthetic value in its contribution to an agricultural landscape approaching Stellenbosch via the R304. Landscape of urban-rural transition with gateway opportunities. Embedded within this landscape, heritage resources of Grade III heritage value (Monterosso IIIB; Cloetesdal Farm IIIC).	Orthogonal field patterns with access arrangements off the R304 and a sloping topography. Long views towards mountain peaks framed by green edge conditions.  Google Earth 2021 (R304 street view looking south east) Undulating sloping topography with subtle skyline conditions framing environmental rooms.  Google Earth 2021 (R304 street view looking north west)  Monterosso farm part of 1930/50's pattern of settlement along the R304 (SHI 2018)	Some degree of resilience with the need to balance the urban expansion of the town while responding to the landscape context and thus avoiding peripheral sprawl. Development should comprise a clear settlement structure including a legible public structure and green structure. Avoid the sameness in settlement pattern or continuous swathes of development with the creation of environmental rooms, thresholds or markers in the landscape to punctuate development pockets. Provide a density gradient in response to topographical conditions and movement routes with higher densities on the valley floor and lower slopes and lower densities on the upper more visually prominent slopes. Provide a variation in built form typologies including the use of taller or landmark buildings at key points in the settlement structure.
			Positive response to the patterns of access off the R304 in terms of geometry, cross route conditions and axial alignments. Careful consideration edge treatments e.g. use of tree planting to reinforce gateway qualities, visually permeable boundaries. Explore the principle of a local 'high street' parallel to the R304 and linking Kyamandi with its surroundings.

Name	Heritage Significance Grading	Character Statement Description and Character Forming Elements	Heritage Indicators Capacity to Accommodate Change & Absorb Development
CA 11 **PAPEGAAIBERG** **Passive recreation and retreat**	Identified in the SHI (2018) to be grade IIIB heritage value. Considerable visual/spatial significance; dramatic and vivid rural and natural landmark quality in immediate juxtaposition with the urban built form of Stellenbosch. Place of spiritual quality and significance; place of refuge; of retreat and contemplation, relatively unencumbered by perceptions of exclusion and exclusivity, and spatial division.	Green frame to the town. Dramatic visual spatial juxtaposition of rural and urban. Steep topography establishes a green wall to the Adam Tas corridor. Heightened altitude affords panoramic views over Stellenbosch in the midfield and the Hottentots Holland mountains beyond.  SHI (2021)	Maintain the existing natural unbuilt quality. Enhance the integration with the public realm and open space system of the town to ensure a continuity of green; a continuous network of public open space integrated with the water network, including rivers, canals and the leiwater system. Enhance access opportunities, particularly from the cemeteries at the point of entry into Stellenbosch and Kayamandi. Develop a use management plan specifying use intensity zones (passive and active recreation), permissible and prohibited activities. Explore memorialization opportunities. To include a public participation programme to elicit the range of meanings associated with the place. Ensure that any built form interventions, including paved surfaces, benches, shaded areas and possible memorial opportunities are integrated into the landform, utilize appropriate materials and have minimal visual impact.

6.4.11. Environment

Key to the Development Framework is to incorporate, restore, and celebrate environmental assets.

Two foci are particularly important. The first the restoration and incorporation of the Plankenbrug River as a central, functional element of the development. If upstream pollution can be managed, the river corridor could serve multiple roles, including an amenity and value adding feature to adjacent development, as well as a NMT route linking precincts, integrated with similar routes in Stellenbosch town.

The second is the incorporation of Papegaaiberg as a central place of recreation, conservation, and "retreat" in the urban structure of Stellenbosch. The natural environment of Papegaaiberg could be preserved, while providing increased, safe access for recreational purposes. Key will be how and where access points are structured and organized, the nature of recreational development (e.g., structured walking and cycling paths, look-out points, and so on), as well as its interface with adjacent development. Papegaaiberg should become, through multiple and carefully managed use and access, a sacred, treasured space for all citizens.

Central to the exposure, preservation, and celebration of Papegaaiberg is its linkage to the rest of Stellenbosch town with the proposed university avenue.

6.5. Movement, access, and parking framework

6.5.1. Global transport trends

- Approaching the movement, access, and parking for the ATC occurs within a framework of emerging global transport trends, including:
- Significant shifts in policy to accommodate the transformation of the way transport is sourced, operated and maintained.
- A significant shift to the use of public transport.
- Potential shifts away from private vehicle ownership and a potential increase in car-pooling and rental pools.
- An increasing dependency on electric/ hydrogen vehicles and the increasing obsolescence of the petrol/ internal combustion engines.
- Inter-dependencies and collaboration between the public and private sector.

6.5.2. Movement network

The movement network associated with the ATC is illustrated in Figures 20 and 21). Key aspects of the movement network are:

- A continuous central vehicular route between precincts – from the Sawmill via Oude Libertas, Bosman's Crossing, Bergkelder, Plankenbrug, to Kayamandi – and incorporating elements of Distillery Road, George Blake Road, and Rand Road. This route should accommodate NMT and public transport functions.
- Adam Tas Road/ R44 maintaining its role as a "mobility" route.
- Vehicular road intersections with Adam Road/ R44 (at grade and grade separated in the vicinity of Bergkelder/ Van der Stel).
- A NMT route following the Plankenbrug and Eerste River corridors and linked to the existing/ proposed system for Stellenbosch town.
- The existing rail, incorporating the two existing stations (Stellenbosch and Du Toit, both upgraded) and two new ones proposed at Droë Dyke/ Sawmill and Kayamandi North.
- Nine new pedestrian crossings along ATC with crossing intervals of between 400-600m (from an operating perspective, these crossings will need to be grade-separated, preferably underpasses given the high clearance and ramp length required for overpasses).

6.5.3. Parking

In relation to parking, the movement network acknowledges:

- The underlying objectives of the ATC project to pursue an environment prioritising public and non-motorised transport.
- The reality of having to accommodate parking – serving Stellenbosch town and the ATC area – while expecting to progress towards lower private vehicle dependence and use over time; this, in turn, requiring innovative transitory arrangements, including the provision of parking in a form enabling ready conversion in future to other uses.
- Centralised parking facilities, delinking the provision of parking from the specific entity served.

6.5.4. Parallel actions

The movement network assumes that:

- PRASA will continue/ reinstate operations of the railway corridor service with new rolling stock and the implementation of additional rolling stock for increased demand.
- The possible establishment a concessional corridor between Eerste River and Klapmuts stations (or the development of a railway system that comprises of a combination of the above).
- Ultimate doubling of the railway line between Eerste River and Muldersvlei Stations.
- The early development of subsidised public transport services linking the different ATC precincts and rail stations with the university and the Stellenbosch CBD. Such a public transport system will have to be developed in an incremental manner (until such time as it could be incorporated into the SM IPTN).
- The transformation of the Stellenbosch minibus taxi industry (Association Based Companies/

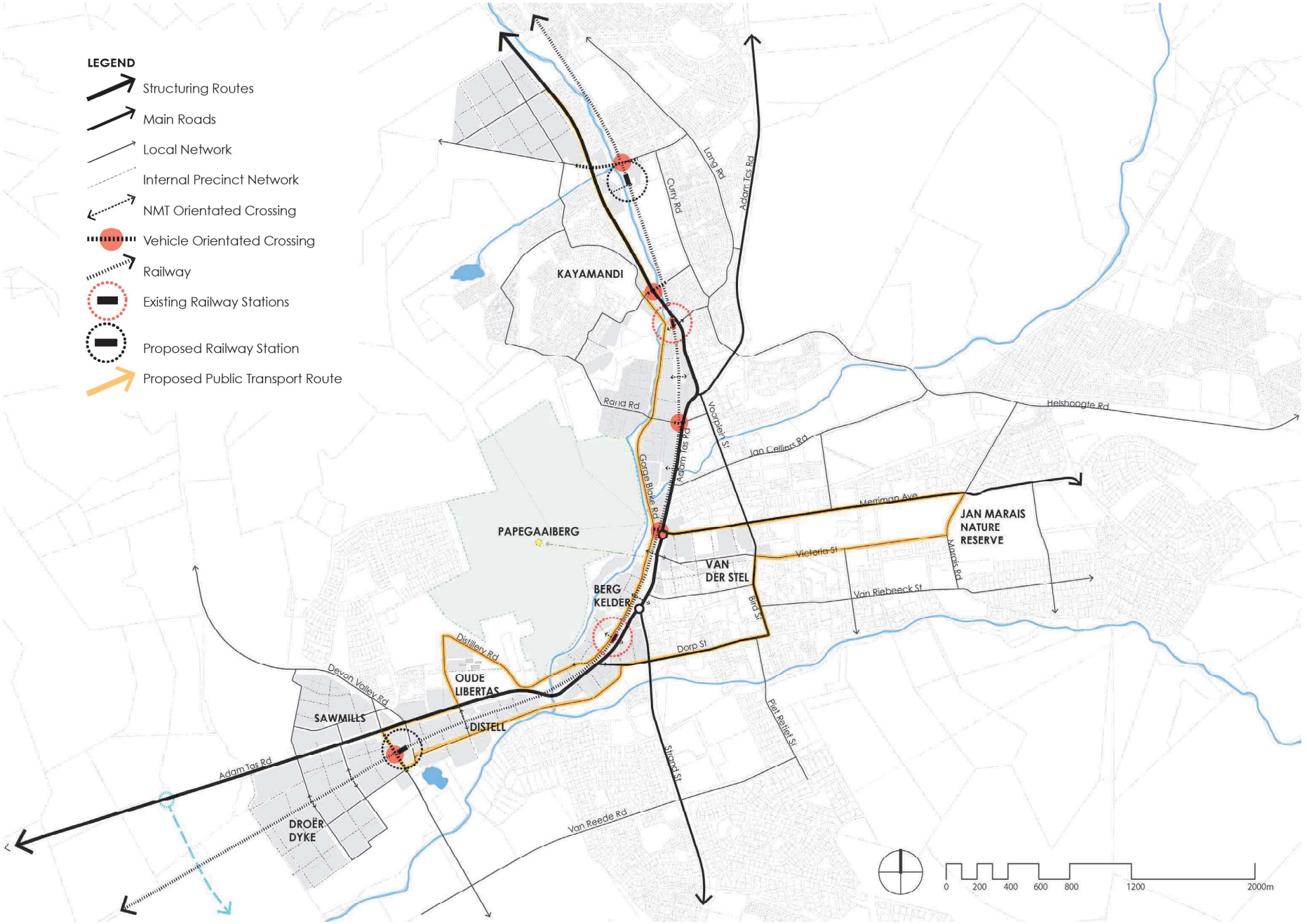


Figure 20. ATC vehicular movement structure

Vehicle Operating Companies) by means of contracted services. This is a contentious process and, in many respects, based upon both legislative responses as well as the value proposition offered to the industry to transform.

- The allocation of housing opportunity to people living, working and/ or studying in Stellenbosch, in that way assisting to removing commuters to and from Stellenbosch using private vehicles.
- Broader regional transport network implications being addressed.

A summary of transport improvements per development phase is provided in section 6.6.3. Development Phasing.

6.6. Bulk services framework

6.6.1. Scope of bulk services framework

The bulk services framework follows an analysis of existing bulk infrastructure services capacity and demand associated with the minimum and maximum land use and bulk scenarios presented above.

6.6.2. Phasing

Figure 22 illustrates a development phasing scenario for the ATC, based on:

- Unlocking the initial precincts that would require the minimum amount of bulk infrastructure upgrades.
- Considering precincts with the potential of developing, or which might be in a position to develop sooner than others.

Table X illustrates indicative development phases and duration, based on the proposed sequence of infrastructure upgrades. The indicative phasing could be adjusted based on demand and associated changes to infrastructure development.

Table 12 illustrates indicative bulk floor area per phase (based on an average of the minimum and maximum bulk proposed for the ATC).

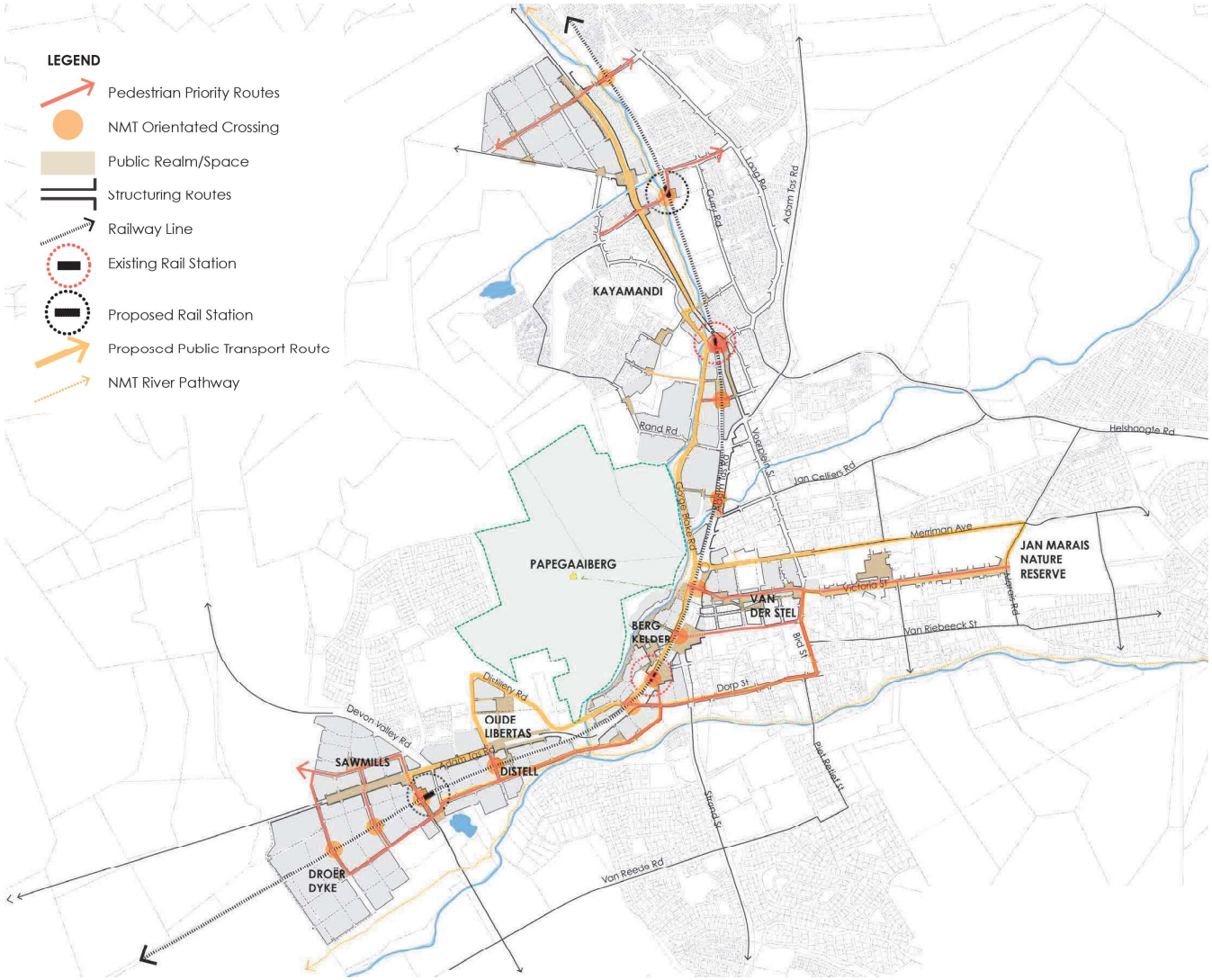


Figure 21. ATC non-motorised movement structure

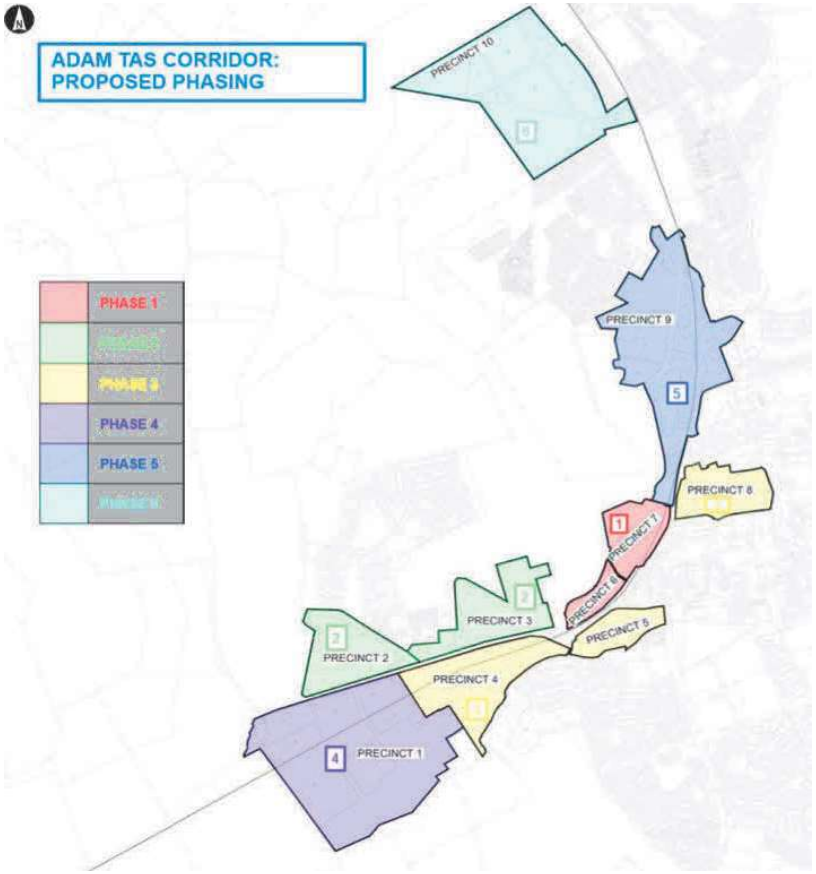


Figure 22. Proposed Development Phases (Zutari, 2021)

Table 12. Proposed phasing of precincts

PHASE	DURATION (YEARS)	PRECINCTS
1	0-3	6, 7
2	3-7,5	2, 3
3	7,5-15	4, 5, 8
4	15-22,5	1
5	22,5-30	9
6	22,5-30	10

Table 13. Indicative bulk floor area per phase

PHASE	TOTAL	PRECINCT									
		1	2	3	4	5	6	7	8	9	10
1	400 820						126 882	273 938			
2	518 101		397 191	120 910							
3	856 058				443 249	145 105			257 704		
4	704 575	704 575									
5	700 112									700 112	
6	563 507										563 507

6.6.3. Transport improvements per phase

Table14 and Figure 23 outlines transport infrastructure improvements required per phase and precinct.

Table 14. Transport infrastructure improvements per phase and precinct

PHASE 1: Precincts 6 & 6		
1	Upgrade Intersections	Improvements on Adam Tas Road at the intersections of Blersch Street, Bird Street and Merriman Road.
2	New Bridge Eliminating Rail Level Crossing	Realignment of Merriman Road and provision of a road/rail bridge to eliminate the rail level crossing and removing two signalised intersections along Adam Tas Road.
3	Street to Street Pedestrian Bridge	Street to Street rail crossing at Stellenbosch Station from Precinct 6 and 7 to Adam Tas Road.
4	Upgrading of Existing Rail Station	Improvements to Stellenbosch Rail Station.
PHASE 2: Precincts 2 & 3		
1	New Road Link	Realignment of Devon Valley Road.
2	Upgraded Intersections	Upgrade of the intersection of Adam Tas and Devon Valley Road and Adam Tas and Vredenburg Road.
PHASE 3: Precincts 4, 5 & 8		
1	Street to Street Pedestrian Bridge	Street to Street rail crossing at Oude Libertas Road linking to Precinct 3 and 4.
2	New Intersection	Provide new intersection on Winery Road.
3	New Overhead Rail Station	New Station opposite Oude Libertas intersection.
PHASE 4: Precinct 1		
1	New Road Link	New road/ rail bridge to provide access to Precinct 1 from Adam Tas Road.
PHASE 5: Precinct 9		
1	Upgrade Intersections	Improvements on Adam Tas Road at the intersections of Bird Street.
2	Street to Street Pedestrian Bridge	Street to Street rail crossing at Du Toit Station across Adam Tas Road.
3	Upgrading of Existing Rail Station	Improvements to Du Toit Rail Station
PHASE 6: Precinct 10		
1	New Road Link	New link road at Last Road linking Precinct 10 with Cloetesville.
2	New Overhead Rail Station	New Rail Station opposite Last Road.
3	New Intersection	New access intersection to Precinct 10.

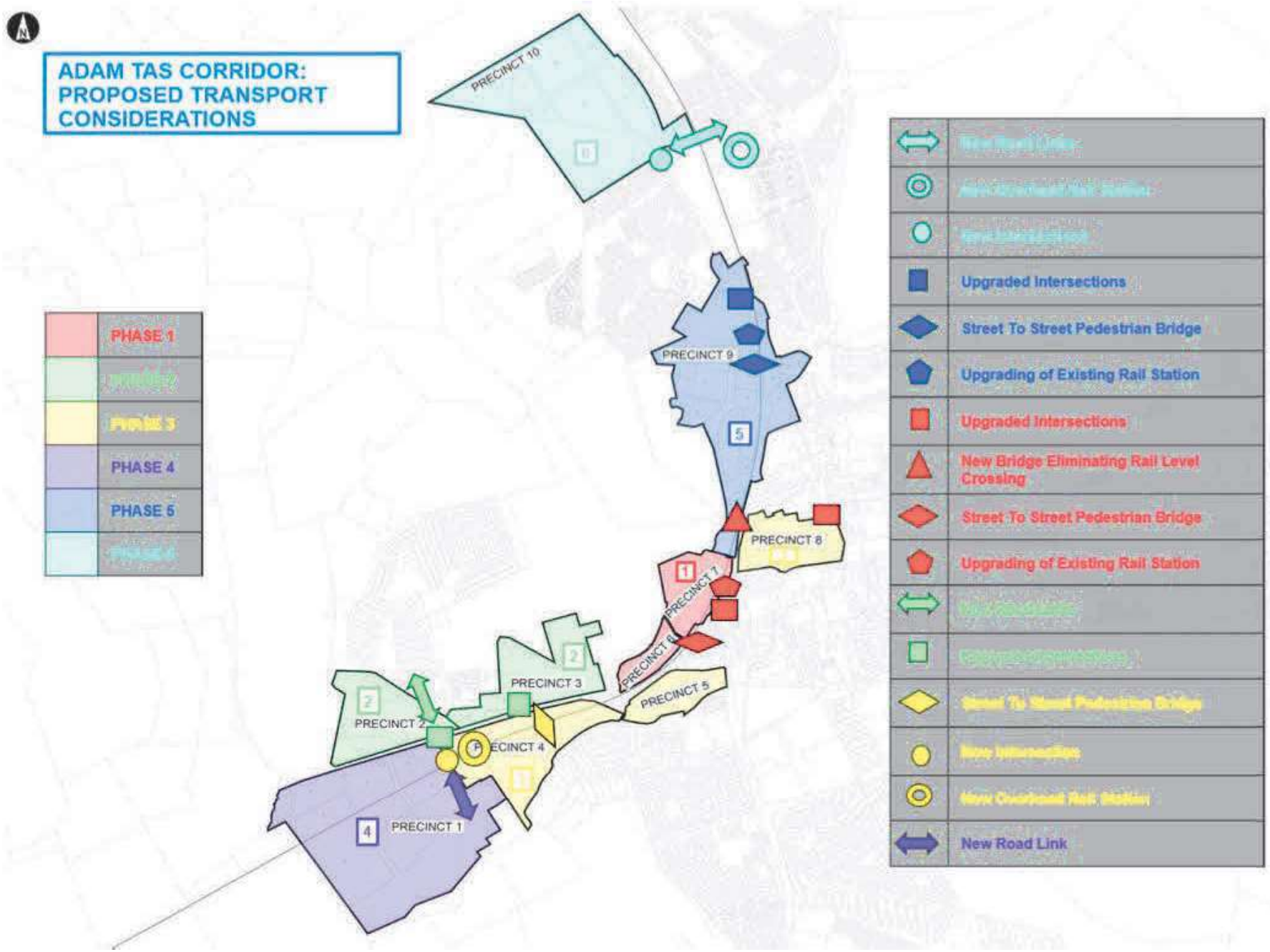


Figure 23. Proposed Transport Considerations (Zutari, 2021)

6.6.4. Bulk civil infrastructure

Table 15 and Figure 24 outlines bulk civil infrastructure improvements required per phase and precinct.

Table 15. Bulk civil infrastructure improvements per phase and precinct

PHASE 1: Precincts 6 & 6		
	Sufficient capacity is available for Phase 1 to continue without any bulk infrastructure upgrades to water supply and sewer reticulation networks.	
PHASE 2: Precincts 2 & 3		
1	Water Network Upgrade	Upgrade of existing water supply network to improve water supply to Precinct 2 and 3.
PHASE 3: Precincts 4, 5 & 8		
1	Water Network Upgrade	Possible shared cost for upgrade of existing water supply network of Phase 2 (Precinct 2 and 3).
PHASE 4: Precinct 1		
1	Water Network Upgrade	Installation of new bulk water connection pipeline for water supply to Precinct 1.
2	New Sewer Reticulation Pipeline	Installation of new gravity bulk sewer reticulation network for Precinct 1.
3	New Sewer Pump Station	Installation of new sewer pump station to pump sewerage from Precinct 1 to the existing WWTW.
4	New Sewer Rising Main	Installation of new sewer rising main from the proposed new pump station to the existing WWTW.
PHASE 5: Precinct 9		
1	Upgrade Sewer Reticulation Pipelines	Installation of new gravity bulk sewer reticulation pipelines to improve network capacity.
2	New Sewer Pump Station	Installation of new sewer pump station to improve network capacity.
PHASE 6: Precinct 10		
1	New Reservoir	Construction of proposed new Reservoir at Pappagaaiberg.
2	Water Supply Upgrade	Upgrade Water supply to the proposed new Pappagaaiberg reservoir.
3	New Water Pump Station	Installation of new water pump station at the proposed new Pappagaaiberg .reservoir
4	New Water Supply Pipeline	Installation of new water supply pipeline from new Pappagaaiberg pumpstation towards the existing Kleinvlei reservoir.
5	New Water Pump Station	Installation of new water pumpstation at the existing Kleinvlei Reservoir.
6	New Water Pump Station	Installation of new water pumpstation at the existing Kayamandi 1 and Kayamandi 2 Reservoirs.
7	New Reservoir	Construction of proposed new Reservoir at Kayamandi.
8	New Water Supply Pipeline	Installation of water supply pipeline from the new Kayamandi water pump station to the new Kayamandi reservoir.
9	New Water Network Pipeline	Installation of new bulk water supply network pipeline from the new Kayamandi reservoir to supply water to Precinct 10.
10	New Sewer Reticulation Pipeline	Installation of new gravity bulk sewer reticulation network for Precinct 10.

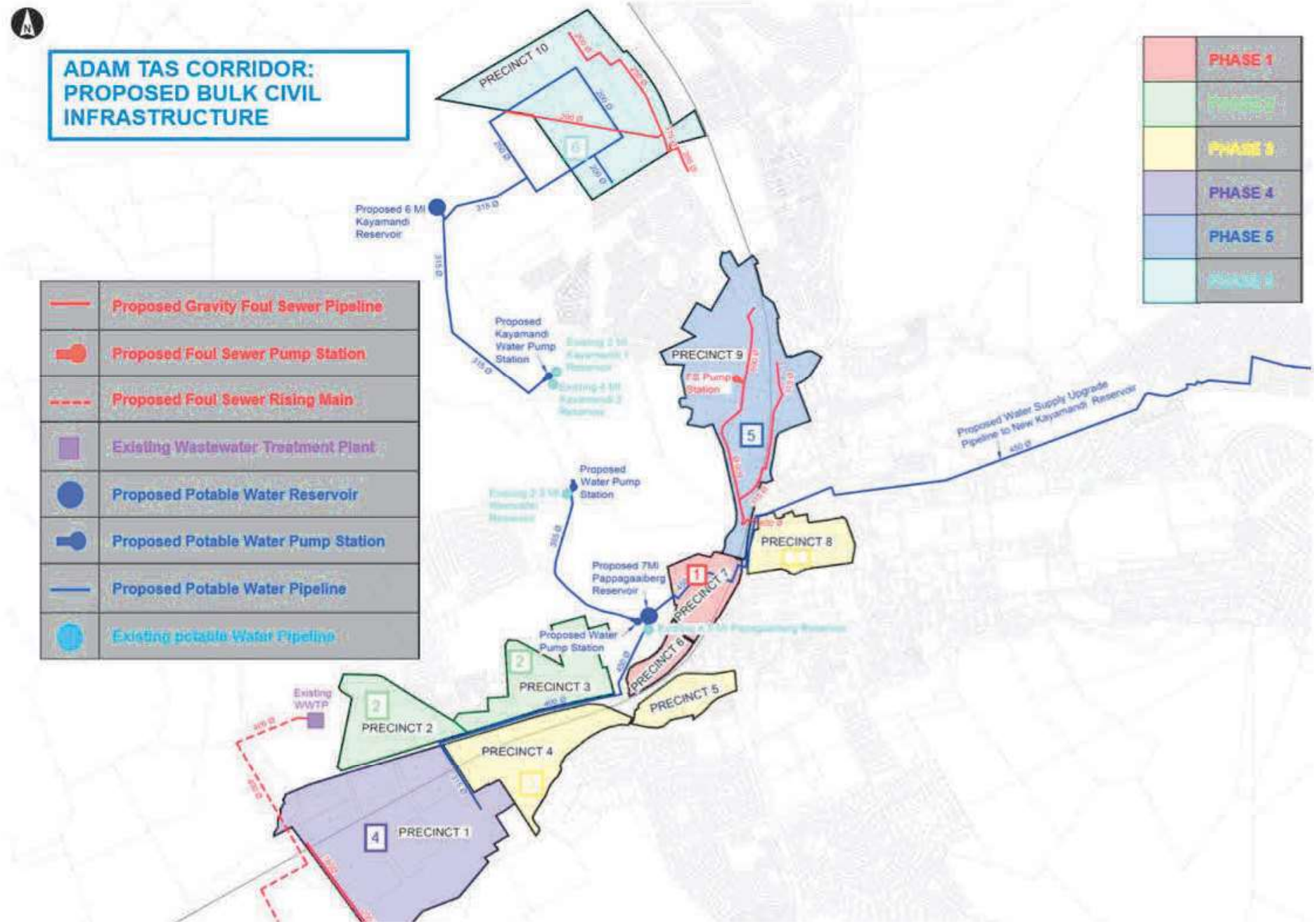


Figure 24. Proposed Bulk Civil Infrastructure (Zutari, 2021)

6.6.5. Bulk electrical infrastructure

The electrical bulk infrastructure is divided into two zones, Electrical Sub A and Electrical Sub B as per Figure 25 These zones require upgrades of the substations that falls within these areas as the precincts within each area develops. Precinct 1 to 8 falls within the Sub A upgrade zone and Precinct 9 and 10 within the Sub B upgrade zone. From a phasing perspective, the proposed phasing takes into account these upgrade zones, and should be further considered should the phasing be adjusted in future as upgrading of the substations would be a considerable cost.

6.6.6. Bulk infrastructure costs

The development costs of infrastructure as proposed in the LSDF has been estimated (as an average of the minimum and maximum of development proposed).

The total development contribution cost amounts to approximately R1 440m. The total cost to upgrade infrastructure in order for development to take place amounts to approximately R1 368m. The development contribution cost is therefore R289m more than the upgrade cost which would be the additional cost that the development will have to contribute to the Stellenbosch Municipality in order for development to take place. This is a good indication that the proposed development could be feasible.

The more detailed cost estimates is attached as Appendix C.

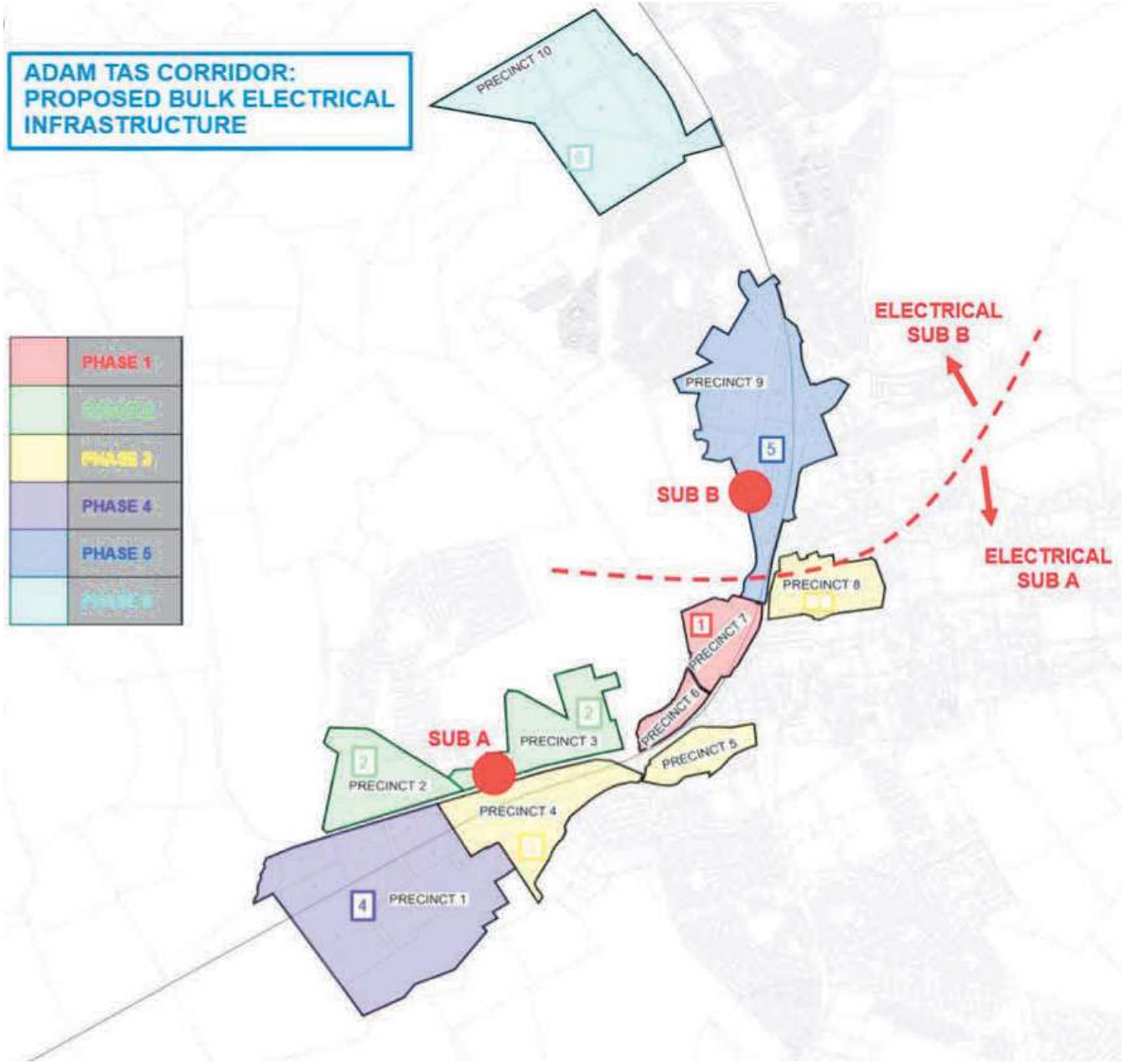
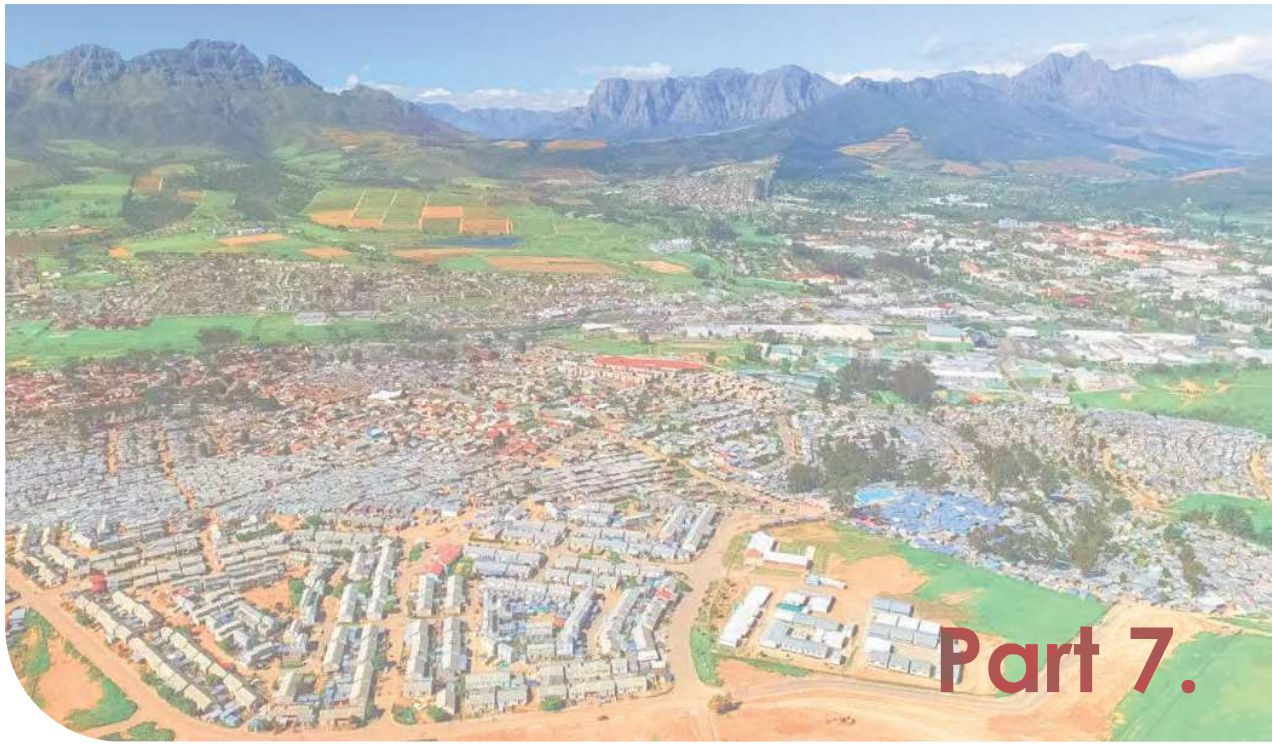


Figure 25. Proposed Bulk Electrical Infrastructure (Zutari, 2021)



Part 7.

Economic Impact

7. Economic Impact

As part of work on the ATC LSDF, the potential contribution of the planned development on the local economy has been estimated. The socio-economic impact assessment (SEIA) distinguished between two phases of the proposed ATC development, namely the construction and operations phases.

The study concentrates on the economic effects of the project using a macroeconomic impact analysis methodology, performed for the construction and operational period of the project and the accompanying infrastructure. The analysis was aimed to estimate the impact on GDP, employment and household Income.

The full report is attached as Appendix D. The report concludes that there are clear economic and occupational returns linked to investments related to the ATC project. The proposed development is also well aligned with several goals and objectives of the local, provincial and national governments.

In terms of its impact on the local economy, it could create positive benefits in terms of employment and output, the retention of skills, and increased government income provided that project management focuses on keeping the interests within the Stellenbosch LM.

Part 7.

Implementation Framework

8. Implementation Framework

8.1. Approach to the Implementation Framework

This section addresses the issue of how to manage the roll-out of the ATC – the inputs and outputs required, and its integration – to meet stated development objectives for the area.

Section 21 (p) of SPLUMA, specifies that a MSDF must "include an implementation plan comprising of:

- Sectoral requirements, including budgets and resources for implementation.
- Necessary amendments to a land use scheme.
- Specification of institutional arrangements necessary for implementation.
- Specification of implementation targets, including dates and monitoring indicators.
- Specification, where necessary, of any arrangements for partnerships in the implementation process."

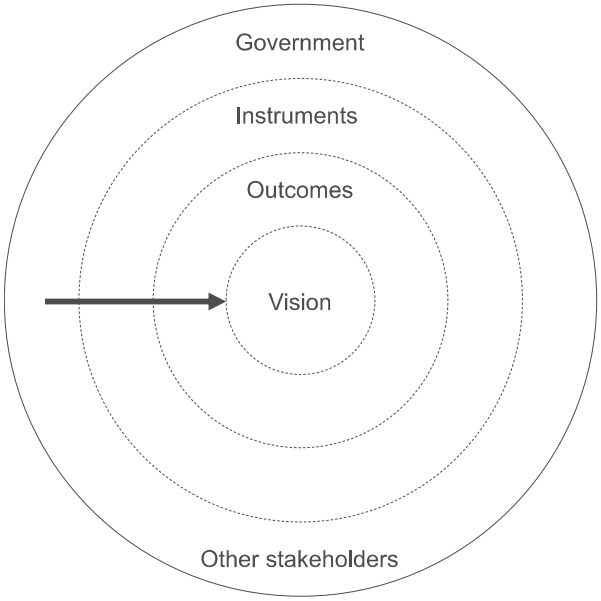


Diagram 4. Approach to the ATC Implementation Framework

The Department of Rural Development & Land Reform's SDF Guidelines refers to the MSDF implementation framework as "high-level … setting out the required institutional arrangements, policies and guidelines that will support adoption of the SDF proposals while aligning the capital investment and budgeting process moving forward." In specific contents, it includes policies, guidelines, a capital Investment framework, spatial priorities and required precinct plans, institutional arrangements, description of public and private sector roles, possible partnerships, and implementation requirements (defined as timeframes moving forward, and inputs into the IDP and sector plans).

SPLUMA does not specify LSDFs as a sub-category of SDFs. However, as indicated earlier, Section 9 of the SM Land Use Planning By-law of 2015 specifically identifies LSDFs as a level of spatial planning. In setting out the purpose of LSDFs, the By-law refers to elements normally associated with implementation, including spatial planning guidelines; detailed policy and development parameters; detailed priorities for land use planning, biodiversity and environmental issues; and guiding decision-making on land use applications.

While aware that the current focus is an LSDF, the approach followed here is one of recognising that although the traditional tools of spatial planning – plans and development regulation – are necessary, they are insufficient to bring about the ATC as desired. Similarly, the "lists" of tools or instruments of implementation provided in SPLUMA, its guidelines, and the SM Land Use Planning By-law, are not necessarily logically organised or "complete" to ensure implementation.

In broad terms, it is believed that the vision for the ATC can be realised should it be described as specific outcomes, pursued in concert by government and other stakeholders through employing a full range of urban management instruments at their disposal, as illustrated in Diagram 4.

In relation to instruments of governance for managing the roll-out of the ATC, an expanded set (from that referred to in SPLUMA or the SM By-law) is presented in Table 16.[14]

Table 17 illustrates in summary form (in two sheets) the relationship between project strategic outcomes for the ATC and the application of supportive instruments of urban management.

14 This work is broadly based on and expands upon the work of Neilson as presented in Instruments of governance in urban management (Australian Planner, 39:2 2002) and Urban Infrastructure Finance and Management, (edited by Wellman and Spiller, John Wiley & Sons, Ltd. 2012). Added to Neilson's instruments are plans/programmes, guidelines, and asset management.

Table 16. Instruments of governance for roll-out of the ATC

INSTRUMENT	EXPLANATION
Policy	Policies operate at many levels, from very high order strategies to policies that guide detailed operational decisions. Their aim is to give clear statements about the intentions of the government or other relevant organisations.
Plans, programmes, and projects	Plans, programmes, and projects – both spatial and sectoral and ranging in sphere/scale of influence – interprets and gives effect to policy through prioritising certain actions and resource allocation.
Legislation and regulations	Legislation is the law, and regulations the rules that govern action within the framework set by law.
Guidelines	Guidelines provide options for executing policy or aspects of plans in a manner which will give effect to policy.
Fiscal measures	Fiscal measures relates to the revenue-raising activities of government. The structure of taxation (where it exists) and pricing for goods and services impacts on outcomes of urban development and ongoing capacity to manage growth and change. Full cost recovery for urban services will produce a different city from one where services are heavily subsidised.
Financial measures	The spending priorities of the government will influence the form and functioning of each city. This is especially the case with transport infrastructure, housing for lower income groups, public amenities and the public realm, and other aspects of the built environment.
Asset management	The manner in which assets, e.g., land, is used to achieve development objectives.
Institutional arrangements	The roles and responsibilities of government, the private sector, and communities can vary greatly depending on ideology, private sector capacity, and community expectations, and this variation will result in different management and developmental outcomes. Within governing bodies the way functions, powers, and responsibilities are allocated across different organisations will also have substantial effects on management style and capacity, and therefore on the functioning of a city.
Advocacy	Leadership and advocacy influence community and business behaviour and hence the way cities perform. Road safety campaigns, antilittering campaigns, and water and energy conservation campaigns have all been shown to change behaviour and improve urban performance against declared objectives.
Knowledge management	Sharing knowledge and experience impacts on the speed with which changes occur in cities. Learning how others have been successful and replicating their efforts are important elements in modern urban management.

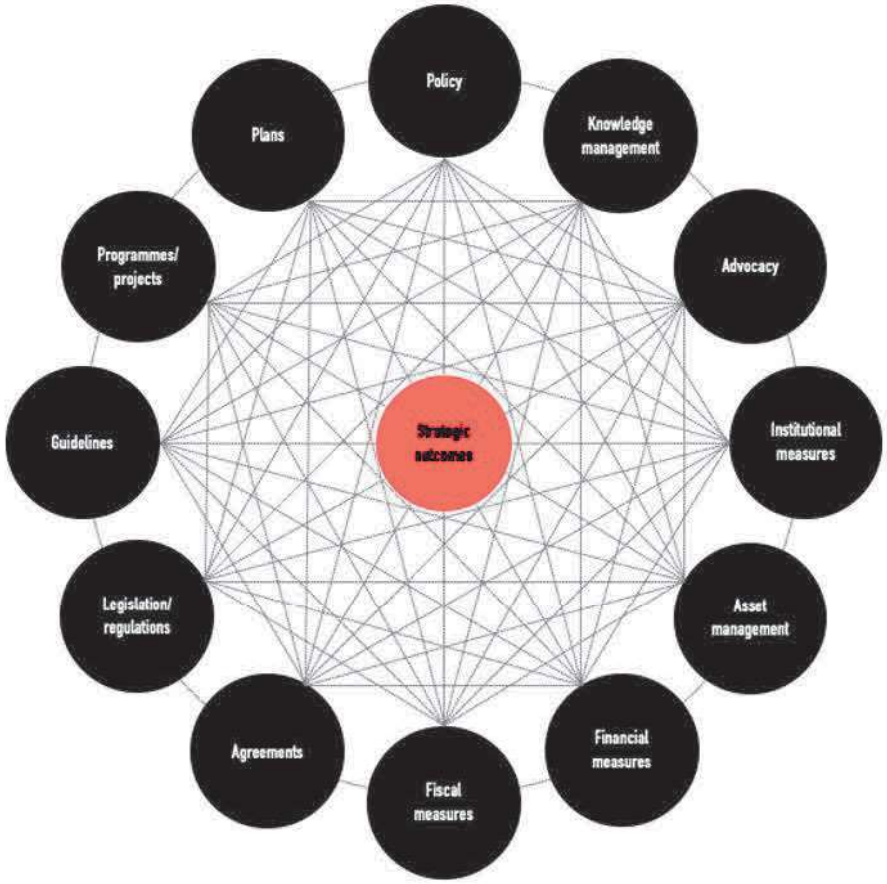


Diagram 5. The interrelationship of instruments of governance

Table 17. Strategic outcomes and supportive management instruments (Sheet 1)

STRATEGIC OUTCOMES	POLICY	PLANS/PROGRAMMES/PROJECTS	LEGISLATION/ REGULATIONS	GUIDELINES	FISCAL MEASURES
A vibrant, compact and efficient urban district, respectful of the environment and history	• Incorporation of the project in higher-order municipal policy. • Specific policy in support of high density, mixed use, pedestrianism, environmental remediation and integration, and historic recognition.	• Incorporation of the project in the municipal IDP. • An ATC Development Framework focused on compact, dense development. • A programme to undertake remedial environmental actions. • Indication of historic places/ structures to be respected in the plan.	Incorporation of development parameters which support plan objectives in the Zoning Scheme By-law (e.g., bulk, density, areas to be conserved, etc.).	Incorporation of guidelines related to land use distribution, built form, landscape, the environment, and heritage.	Possible rates reductions and other fiscal measures for meeting specific plan objectives (e.g., density targets).
Increased access to livelihood opportunity for ordinary citizens	Policy in support of increased access (including housing) for ordinary citizens to opportunity-rich areas.	• Development of programmes/ projects which specifically targets the needs of ordinary people. • Incorporation of the project objectives in stakeholder social responsibility plans/programmes.	Incorporation of increased livelihood opportunity parameters (e.g., affordable housing) in the Zoning Scheme By-law.	Guidelines related to the allocation of housing and other opportunity.	Possible rates reductions and other fiscal measures for meeting specific plan objectives (e.g., affordable housing).
Seamless integration with surrounding areas		Incorporation of bridging proposals in municipal transport/mobility plans.			
Financial sustainability	Policy to ring-fence funds generated through the ATC (e.g., development contributions) for use within the area.		• Ringfencing of project related development contributions. • Ringfencing of the area as a recipient of "in-leu" affordable housing contributions.		• Possible rates reductions and other fiscal measures for meeting specific plan objectives (as described above). • Incorporation of the area as a UDZ.
Active partnership between stakeholders	Operational policy in relation to partnerships.	Developing joint programmes/projects between the private and public sectors.		Guidelines setting out the various roles and responsibilities of stakeholders.	
A clear development process with speedy decision-making	Policy to define an ATC specific development process.	A clearly articulated hierarchy of plans and associated requirements.	Incorporation of project specific development processes in the municipal LUMS.	• Guidelines related to the LUMS process. • Guidelines related to interim use and lead projects.	Possible waving of LUMS fees/ charges for specified uses/ activities.

Table 18. Strategic outcomes and supportive management instruments (Sheet 2)

STRATEGIC OUTCOMES	FINANCIAL MEASURES	ASSET MANAGEMENT	INSTITUTIONAL ARRANGEMENTS	ADVOCACY	KNOWLEDGE MANAGEMENT
A vibrant, compact and efficient urban district, respectful of the environment and history	Proactive planning/budgeting for supportive infrastructure, public facilities, and environmental remediation/ management.	• Reservation of government land assets to achieve plan objectives. • Commitment by landowners to reserve their land to achieve plan objectives.		Active/continuous support for the project by public, private, and community leadership.	Systems to share knowledge about what is available, what works, and challenges in relation to the quality of place pursued.
Increased access to livelihood opportunity for ordinary citizens		• Qualifications related to use of government land framed in a manner which support increased access to livelihood opportunity for ordinary citizens. • Commitment by landowners to reserve agreed sections of their land for increased livelihood opportunity purposes (e.g., affordable housing).	Project specific institutional arrangements to ensure targeted beneficiation (e.g., availability of affordable housing to local citizens/workers).		Systems to share information about opportunities related to the project (e.g., work, housing, education/training).
Seamless integration with surrounding areas	Proactive planning/budgeting for bridging measures.				
Financial sustainability		Minimising the cost of government land to meet project objectives.	Project specific institutional arrangements to manage funds between precincts.		
Active partnership between stakeholders			Regular, structured engagement between stakeholders (at different levels).		Systems to share information between partners related to different but interdependent needs (including trends).
A clear development process with speedy decision-making			Project specific institutional arrangements in support of the municipal LUMS process.		Systems to clearly communicate LUMS obligations and progress.

Importantly, as illustrated in Diagram 5, the instruments are interdependent and support each other. Projects fail when the full range of instruments are not used and structured in a mutually supportive manner. Figure 26 illustrates this interrelationship between instruments in the context of the LSDF and other common municipal management instruments, ranging across spheres of government and functional areas. The predominant focus of the LSDF is highlighted. Given the extent of the ATC area, multiple landownerships, and extended projected development period, considerably more detailed work will be required around aspects of implementation following adoption of the LSDF.

National statute prescribes the framing of lower-level legislation and regulations, integrated, sector-specific, and spatial policy and plans, and the way municipalities are resourced and work, including institutional arrangements and budgets.

The LSDF – as a lower-level spatial plan aligned to the MSDF – provides inter alia a development framework, infrastructure recommendations, and guidelines for development of the area. The rights implied are incorporated in local LUMS By-laws, with the application of rights supported by legal agreements, the alignment of municipal sector plans, project specific incentives, institutional arrangements, and so on.

This interplay of various management instruments in support of project conceptualisation, specification, and implementation occurs within a surround of general and project-specific institutional support, knowledge generation and sharing, public participation and leadership support and advocacy.

The following section addresses each of the instruments identified above in more detail.

8.2. Instruments for Implementation

8.2.1. Policy

Tables 19 - 22 outlines a policy framework for the ATC area, linked to strategic outcomes.

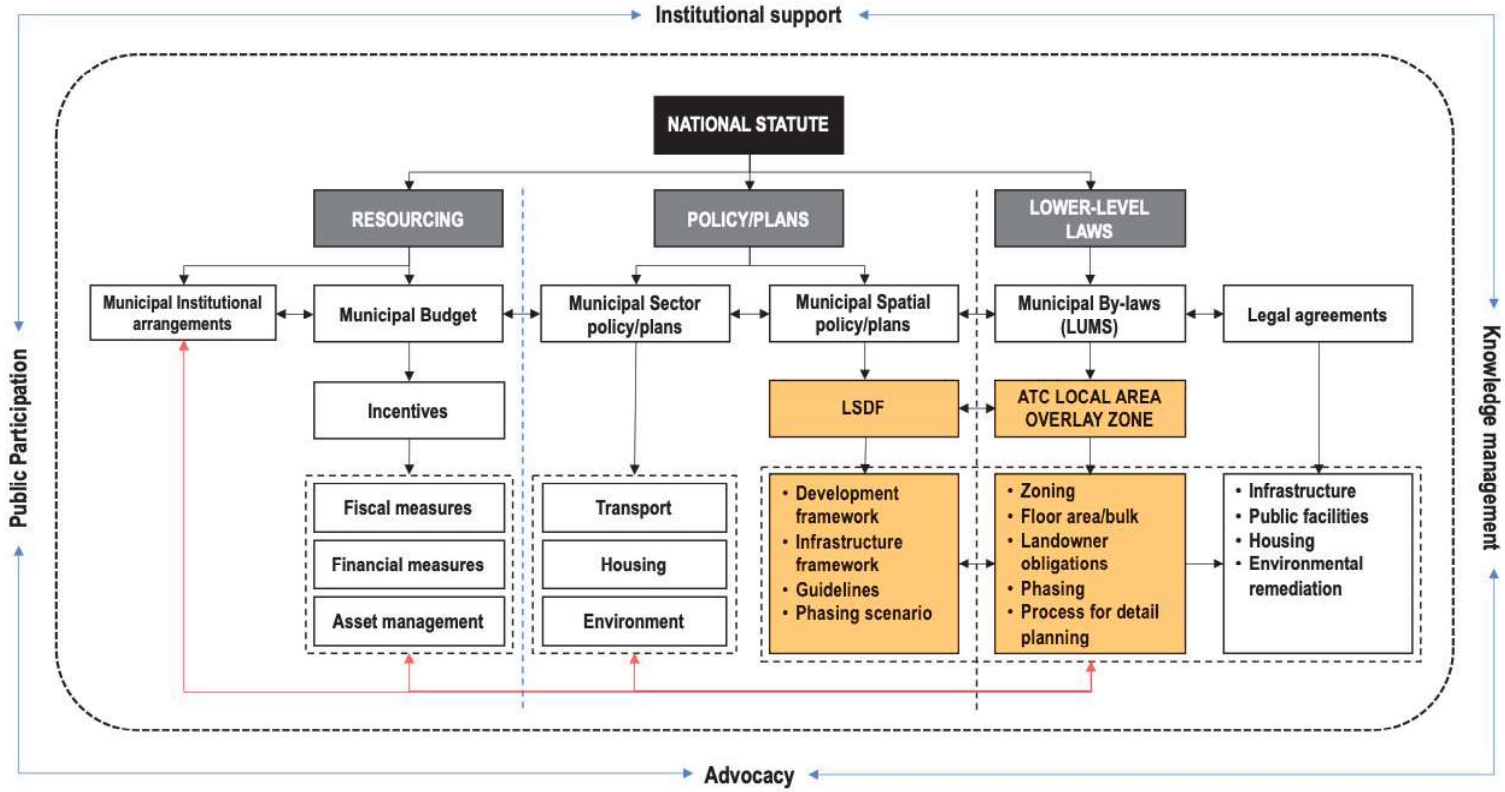


Figure 26. The relationship between management instruments

Table 19. ATC policy framework

1.	A VIBRANT, COMPACT AND EFFICIENT URBAN DISTRICT, RESPECTFUL OF THE ENVIRONMENT AND HISTORY		
	Policy statement	**Explanation**	**Policy guidelines**
1.1	**Ensure that the ATC reflects urban qualities in development.**	• Facilitate compact development, mixed use, pedestrianism, public and NMT. • Provide access to economic opportunities, public institutions, social facilities and public transport. • Encourage development that provide a range of housing options to different housing markets. • Ensure the provision of adequate, accessible public spaces, large and small, and accommodating a range of activities. • Ensure the clustering of public facilities and overlap with public space. • Accommodate a range of large and small actions/activities and some flexible spaces enabling innovative, creative, and entrepreneurial use. • Provide for adaptiveness and incremental development (across scales).	• The LSDF DF should provide for high density, mixed use development, facilitating pedestrianism, public and NMT. • The LSDF should indicate the minimum and maximum densities which will ensure urban qualities in development. • The LSDF DF and lower-level plans should ensure that sufficient land is reserved to accommodate public facilities and recreational spaces, large and small. • Standards for public facilities must be fitting of a dense urban environment (e.g., the sharing of sports fields should be considered to minimise space allocations). • Government must ensure that their medium-term plans and budgets provide for the development of public facilities.
1.2	**Appropriately manage development impacts on natural resources, while protecting, restoring and enhancing natural assets within the ATC.**	• The development should protect environmental resources and contribute to the restoration of degraded environmental assets. Land development must optimise the use of land and existing structures and infrastructure, and actively seek alternative, environmentally responsible, and resource-efficient servicing solutions.	• Incorporate urban greening, sustainable urban drainage systems, and public amenity into urban design. • Enhance access to open spaces and river corridors. • Upgrade and rehabilitate degraded urban river systems and open spaces. • Integrate the rivers into the urban fabric by developing a positive interface and public access along the river corridors. • Maintain conservation areas and ensure new development contributes to conservation efforts. • Optimise the use of land by densifying and redeveloping within the urban area; • and actively promote resource-efficient servicing solutions including NMT, alternative water sources, and distributed electricity generation.
1.3	**Ensure that the ATC is contextually apt in urban form and respects and enables heritage and cultural development.**	• Development must recognise the special structure and form of Stellenbosch town, current access limitations, and the need to protect environmental resources, historic elements and precincts of value while accommodating further growth and expanded opportunity. • Development must retain elements of the area which contributes to history and place character and enable the establishment of new places and processes which contributes to cultural development. In this way, the ATC will expand Stellenbosch's stock of publicly accessible historic precincts and places, supporting national heritage assets and a critical tourism industry.	• The LSDF should provide high-level guidelines for incorporating heritage and culture considerations. • The LUMS should define how these considerations should be incorporated in lower-level plans. • Stellenbosch Heritage Foundation and other similar local institutions are key partners in ensuring that heritage and culture considerations are respected in all levels of planning.

Table 20. ATC policy framework (continued)

2.	INCREASED ACCESS TO LIVELIHOOD OPPORTUNITY FOR ORDINARY CITIZENS		
	Policy statement	**Explanation**	**Policy guidelines**
2.1	**Ensure that the ATC increases local access to work opportunity.**	The development must enable job creation and entrepreneurship during all phases of its roll-out.	• Lower-level plans should enable work opportunity through allocating land appropriately and providing for micro enterprises and informal traders around activity generators which attract high levels of pedestrian traffic. • Development contracts should specify local employment targets. • Project roll-out should be supported with readily available information on local suppliers.
2.2	**Ensure access to a range of housing types.**	Specific provision should be made for affordable and inclusionary housing across the site.	• The LSDF and Zoning Scheme By-law provisions should indicate the proportion of affordable and inclusionary housing to be provided across the area. • A distinction should be made between affordable and inclusionary housing and student housing in determining the proportion of housing for different markets to be provided for. • Landowners who want to retain ownership of their land should consider long-term leases to enable affordable and inclusionary housing to be provided by accredited institutions. • Consider giving preference to Stellenbosch residents/workers in the allocation of certain categories of housing. In this way, a related strategy of lowering daily commuting to and from Stellenbosch will be achieved.
3.	**SEAMLESS INTEGRATION WITH SURROUNDING AREAS**		
	Policy statement	**Explanation**	**Policy guidelines**
3.1	**Ensure that the ATC is spatially integrated with the rest of Stellenbosch town.**	• Parts of the ATC must me seamlessly integrated with each other, the rest of Stellenbosch and enable integration of adjacent areas (e.g., Kayamandi). • Spatial integration should specifically consider NMT.	• The LSDF and lower-level plans should specifically address linkages via: - Connecting Papegaaiberg with Du Toit Road/Victoria Street – forming a "university avenue" – and Jan S Marais Park. - Connecting Distillery Road with George Blake Road. - Bridging of the rail and R44 at selective points (with bridging in the vicinity of Bergkelder and Merriman/Alexander Road/Du Toit Street a specific priority). • Develop guidelines to clearly indicate the nature of bridging required/ desired.

Table 21. ATC policy framework (continued)

4.	FINANCIAL SUSTAINABILITY		
	Policy statement	**Explanation**	**Policy guidelines**
4.1	**Ensure that the LASDF process increases land value and assists in the funding of public services and facilities requiring a level of cross subsidisation.**	The project should seek ways to fund the development "internally", meaning that the cost of infrastructure and some community/ environmental services could be funded by the development opportunity.	• Ring-fence development contributions for use within the ATC area.
4.2	**Provide incentives to landowners to contribute to common development objectives.**	• Ensure that available government incentives are applicable to the project. • Develop ATC specific municipal incentives.	• Apply for the ATC to be declared a UDZ. • Expand the Stellenbosch RZ to cover the whole ATC area. • Develop mechanisms for the ATC to receive "in-lieu of" contributions from developments elsewhere (e.g., in relation to affordable housing). • Experiment with different partnering solutions in facility provision that offer operational sustainability (e.g., assisting with operating costs of schools where land and capital costs are provided by the private sector).
5.	**ACTIVE PARTNERSHIP BETWEEN STAKEHOLDERS**		
	Policy statement	**Explanation**	**Policy guidelines**
5.1	**Ensure public, private, and community sector planning and developing towards common development objectives.**	• Following tradition and the norm, it is possible for individual land owners in the area to "go it alone", to alienate land no longer needed for their purposes, or attempt profitable development for alternative uses. • However, it is believed that much is to be gained if the different land owners, large institutions, government, and communities in Stellenbosch explore, plan, and execute development of the land together, in a manner which best serves the public interest. • Only in this way is a scale of development achievable which will ensure affordability of required infrastructure to unlock the area to its full potential, and to achieve a full range of activities and benefits, including the highly profitable, ones requiring subsidisation, the large and the small.	• Respect the different resources and assets which individual interests bring to the project. • Seek the broad sweeping in of information across sectors, and its consideration in an inter-sectoral and inter-disciplinary manner. • Recognise the inherent creativity and community of common interest that exists in people to solve urban problems. It implies that people working together with a collective self-interest can come up with solutions that individuals or governments working alone might never consider. • Seek to enable change processes that build coalitions for change, create shared purpose and make systems work better for everyone, converting potentially controversial policy problems into projects of collaborative innovation. • Ensure that municipal processes for planning/budgeting include project needs (e.g., incorporation of services in the SM Capital Expenditure Framework). • Establish processes aimed at preparing the private sector for acting appropriately (i.e. beyond purely private interest) in response to the rights allocated to them and the "themes" of beneficiation that they may want to support specifically (e.g. education and sport). • Building special purpose core capacity with a clear mandate (a dedicated institution) as spearhead for executing the vision and plan to the "side" of supporting institutions (who have other day-to-day responsibilities). • Specifically support parallel work undertaken by work groups at STIAS to explore options for the project.

Table 22. ATC policy framework (continued)

5.	ACTIVE PARTNERSHIP BETWEEN STAKEHOLDERS		
	Policy statement	**Explanation**	**Policy guidelines**
5.2	**Respect the existing mandates and corporate processes of partners.**	While various partners contribute to ATC work, the project should respect the statutory roles and responsibilities – and associated institutional arrangements and processes – of partners in relation to the project.	Develop processes for all to contribute while respecting existing mandates (e.g., the municipal accountability for LUMS).
5.3	**Proactively seek public participation in and contribution to the project throughout its roll-out.**	While recognising the provisions for public participation contained in spatial planning and built environment statute and regulations, the project should seek to enable active participation by the public, those interested and affected, and landowners, on an ongoing basis.	• Develop web-based publicly accessible ATC information sharing platforms. • Consider on-site offices accessible to the public for major precincts during development roll-out.
6.	**A CLEAR DEVELOPMENT PROCESS WITH SPEEDY DECISION-MAKING**		
	Policy statement	**Explanation**	**Policy guidelines**
6.1	**Establish a flexible regulatory environment while meeting common development objectives.**	Consider a hierarchical planning/approval process within the context of a clear understanding of overall rights and obligations.	• Clearly specify overall rights, common urban elements to be provided/contributed to, and obligations in the LSDF and zoning scheme. • Define precincts coinciding with land ownership to enable private sector spatial and business planning within the context of known overall rights, common urban elements to be provided/contributed to, and obligations. • Specify the detail of lower-level plans and agreements to ensure alignment.
6.2	**Ensure an early start to development.**	The project should commit to thinking big but taking "baby" steps, including enabling lead projects that improve current conditions and provide the opportunity for learning through constant experimenting.	• Develop a strategy for interim use. • Develop a "balanced" portfolio of lead projects, representative of a broad range of interests/needs to be met by the project. • Clearly communicate the LUMS process and associated obligations.

8.2.2. Plans, programmes, and projects

Plans and programmes in support of ATC implementation covers a broad range of initiatives, outlined in Tables 23 - 24.

Table 23. Plans, programmes, and projects in support of the ATC

PLAN/PROGRAMME/ PROJECT	PURPOSE	ACTIONS REQUIRED IN RELATION TO THE ATC
Integrated Municipal Plans / Programmes		
Integrated Development Plan (IDP)	The IDP is the municipality's overarching "business plan", its instrument for coordinating its service delivery initiatives and providing guidance on its priorities and resource allocation.	As a significant initiative supported by the SM, the ATC is included in the 5-year and annual IDP.
Medium Term Revenue and Expenditure Framework (MTREF)	The MTREF, as prescribed by the MFMA, sets out the municipality's indicative revenue and projected expenditure for the budget year, plus two outer financial years.	When completed and adopted, it is expected that the SM MTREF will incorporate the commitment and concomitant implications of the ATC LSDF.
Capital Expenditure Framework (CEF)	SPLUMA requires that MSDFs "determine a capital expenditure framework for the municipality's development programmes, depicted spatially". It should provide a consolidated, high-level view of infrastructure investment needs in the municipality over the long term (10 years) that considers not only infrastructure needs but also how these needs can be financed and what impact the required investment in infrastructure will have on the financial viability of the municipality going forward. SM started preparing its first CEF late in 2018, in parallel with the MSDF review.	When completed and adopted, it is expected that the SM CEF will incorporate the commitment and concomitant implications of the ATC LSDF.
Spatial Plans		
Municipal Spatial Development Framework (MSDF)	The MSDF is a statement of public policy that seeks to influence the overall spatial distribution and form of land use, associated infrastructure, public facilities within the municipal area to give effect to the vision, goals and objectives of the Municipal IDP. Prepared in terms of SPLUMA, it attempts to answer the following questions: "How should the municipal area develop over the next five to thirty years to meet the needs of its citizens? What kind of development will take place, where will it take place, and who will be responsible for what aspect of the development?" The SM MSDF was approved by Council in 2019.	The ATC has been included in the SM MSDF as a catalytic project to enable achieving SM IDP/MSDF objectives.
ATC Local Spatial Development Framework (LSDF)	The LSDF, prepared in terms of Section 9 of the SM Land Use Planning By-law of 2015, provides more detail in respect of a proposal/area provided for in the MSDF.	The current process is focused on the preparation of an LSDF, including setting out the development parameters to be applicable to the ATC area for incorporation in the SM Zoning Scheme By-Law 2018.
ATC lower-level spatial plans	Owing to the size of the ATC and the different ownership of large parcels (each with different development "agendas"), it could be appropriate to develop lower-level plans for each of the parcels within the framework set by the LSDF.	The ATC LSDF sets out the role, focus and specifications of lower-level spatial plans to be undertaken for parts of the ATC. A proposed hierarchy of plans for the ATC is set out in Appendix E.

Table 24. Plans, programmes, and projects in support of the ATC (continued)

PLAN/PROGRAMME/ PROJECT	PURPOSE	ACTIONS REQUIRED IN RELATION TO THE ATC
Sector Plans / Programmes		
SM sector plans/programmes	SM has sector plans for different functional areas, including transport, housing, local economic development, and environmental management. These plans represent the SM's functional area response to overarching municipal objectives.	When completed and adopted, it is expected that SM sector plans will incorporate the commitment and concomitant implications of the ATC LSDF in sector plans. Specifically, the alignment of infrastructure and transport plans are important.
ATC sector/theme plans/ programmes	Owing to the size of the ATC and the need to manage the provision of different services between precincts (and different landowners) over time, it may be necessary for the ATC to have sector/thematic plans and programmes addressing inter alia engineering services, housing, the provision of public facilities, and provisions related to phasing, interim use, and lead projects.	When completed and adopted, it is expected that sector/ theme plans will be prepared for the ATC as part of managing its roll-out.
Lead Projects		
ATC lead projects	Some projects within the ATC area are implementation ready and can be supported because urgent community needs will be met, project learning assisted, project support built, public access to the area enabled, and so on.	• Agreement on the criteria for selecting lead projects. • Agreement on the processes to be followed to enable implementation of lead projects. • A list of lead projects.

To date, the ATC has been incorporated in key SM framework plans and policy, including the MSDF and IDP. Case studies have indicated that cementing the vision and plan for transformation projects in overarching public policy and statutory plans are critical to success.

The LSDF will pave the way for incorporation of the project in medium term organisation-wide and sector business plans and budgets, detailed spatial plans for precincts of the ATC, and the preparation of specific sector/thematic plans enabling the roll-out of the project.

It is also expected that completion and adoption of the LSDF will commence incorporation of the project in the business plans of partner organisations and landowners.

As indicated in case study research, supporting lead projects are important instruments enabling large urban development and transformation projects. Specifically, lead projects can assist in:

- Tapping available interest and resources.
- Serving urgent needs.
- Making use of existing un- or underused assets.
- Demonstrating that pursuing the overall project objectives is paying off.
- Building understanding and credibility of the vision, plan, and associated institutional arrangements.
- Exposing generally inaccessible areas to the public, in that way growing awareness, appreciation for what is possible, and support for further initiatives.
- Building the network of supporters for the transformation vision and plan.
- Removing obstacles to change and learning.
- Promoting more cooperation among project partners, stakeholders, and associated networks.
- Neutralising cynics and self-centered opponents.
- Providing the space to sustain momentum on other change programmes and projects which may have longer time frames or are less visible over the short-term (e.g., expansive service infrastructure investment).

- Exposing the site to potential investors.

Specific criteria for the selection of lead projects for the ATC could include:

- A balanced package of lead projects, reflecting the overall objectives of the ATC as a balanced and diverse community. This means that lead projects should include infrastructure, institutional, commercial, and housing initiatives.
- Accommodating projects of specific benefit requiring accommodation urgently.
- Fit in terms of overall project objectives and plans.
- The potential to significantly unlock further development.
- Existing infrastructure capacity to serve the development.
- Not inhibiting longer term plans.

The section on the incorporation of the LSDF into the Zoning Scheme By-law and associated planning process describes a process for governing the detail planning/approval of lead projects.

At this stage, the potential lead projects have been suggested as listed in Table 25.

Albeit not part of the proposed ATC Local Overlay zone area, residential areas north and south of Van der Stel has undergone some change from single residential development to multistorey apartments. This trend should be supported – as a set of adjacent lead projects – owing to the convenient location of the area for non-motorised transport, both in relation to the existing Stellenbosch CBD, the university, and ATC.

Table 25. Suggested lead projects

PROJECT	PRECINCT	DESCRIPTION
US Business School.	**Precinct #3 Oude Libertas**	The US has explored relocating the USB to Stellenbosch for several years. The chosen location is adjacent to the Oude Libertas theatre complex. The intent is that the USB will also assist in the sustainability of the theatre.
Bridging between Bergkelder and Merriman Avenue.	**Precinct #7 Bergkelder, and Precinct #8 Van der Stel**	The current level rail crossing at Bergkelder is not safe and insufficient to provide access between the ATC and Stellenbosch town. A grade separated vehicular crossing in the vicinity of Merriman Avenue can unlock development of Bergkelder and other parts of the ATC.
A secondary school.	**Precinct #7 Bergkelder**	Initial discussions have taken place between Distell and interested parties to establish a new secondary school on part of the Bergkelder site. The space standards of the school will reflect its urban location, with sports fields located elsewhere.
Enhancement of sports fields.	**Precinct #1 Droë Dyke, and Precinct #4 Adam Tas**	Initial discussions have taken place between Distell and interested parties to upgrade and enhance the cricket/ sports fields associated with the current Distell facility adjacent to the Eerste River (precinct 4).
PRASA station enhancements.	**Precinct #7 Berg Kelder, and Precinct # 9 Plankenbrug**	PRASA is planning platform/station enhancements at Stellenbosch and Du Toit stations.

8.2.3. Legislation and regulations

Incorporating LSDF into the Zoning Scheme

A LSDF guides and informs decisions made by the Municipality relating to land development, without conferring or removing development rights. For rights to be allocated to the ATC – enabling actual development as contemplated in the LSDF – the envisaged rights and obligations need to be incorporated in the SM Zoning Scheme By-Law 2018.

The manner of incorporation should ensure:

- Meeting project objectives: and specifically, early coordinated development which addresses challenges associated with shared infrastructure and public benefit contributions.
- A LUMS which is clear, removes unnecessary or duplicating steps towards development, and allocates accountability fairly.
- A LUMS aligned with current legal roles and responsibilities.

There appears to be three broad options for incorporating the LSDF's envisaged rights and obligations in the LUMS as prescribed in the SM Zoning Scheme By-Law 2018:

- The current system, whereby each landowner applies for rezoning to achieve the rights contemplated in the LSDF.
- A proactive substitution by the SM of the current zoning of the property constituting the ATC with a new set of rights closer aligned to that contemplated in the LSDF.
- Establishing a fit for purpose "ATC Local Area Overlay zone", as provided for in the provisions related to overlay zones in the SM Zoning Scheme By-Law and stipulating additional development parameters aligned the provisions of the LSDF.

The current system will not meet project objectives, specifically in relation to managing shared responsibility to infrastructure and public benefit contributions or a stream-lined approval process. Neither will to the option of a substitution zoning, an option arguably introduced to accommodate Municipal applications and rectifying anomalies between existing use and zoning. Specifically, neither system will enable a rigorous process of shared planning for shared infrastructure and public benefit contributions or phasing of development in line with infrastructure improvements.

The most appropriate option for incorporating the LSDF's envisaged rights and obligations in the LUMS appears to be establishing an ATC Local Area Overlay zone as provided for in Section 17 of the SM Land Use Planning By-law, 2015. In terms of the By-law an Overlay Zone means a category of zoning that applies to land or a land unit in addition to the base zoning and that stipulates additional development parameters or use rights that may be more or less restrictive than the base zoning; and may include provisions and development parameters relating to:

- Primary or consent uses.
- Base zoning.
- Subdivision or subdivisional areas.
- Development incentives.
- Density limitations.
- Urban form or urban renewal.
- Heritage or environmental protection.
- Management of the urban edge.
- Scenic drives or local areas.
- Coastal setbacks (where coastlines are involved).
- Any other purpose as set out in the zoning scheme.

From the perspective of the ATC, establishing an Overlay Zone will have the following advantages:

- Framing development parameters specific to the project context, including the specific objectives pursued through the project.
- Ensuring a high-level of integration in the work undertaken by different landowners for different parts of the area over a prolonged period of time.
- Enabling a clear and accountable LUMS process while allowing significant flexibility over time to accommodate changes in societal and landowner context.

Establishing an Overlay Zone will involve an amendment to the SM Zoning Scheme By-law, 2018, following the procedures related to public participation and approval set out in Sections 12 and 13 of the Municipal Systems Act. In terms of the SM Zoning Scheme By-law, 2018, the Overlay Zone does not change the underlying zoning of the properties to which it relates but may vary the development parameters relating to these properties. Further:

- The development parameters of an Overlay Zone may be more restrictive or more permissive development parameters than the development parameters applicable to the underlying base zoning of the land concerned.
- The development parameters of the base zone remain applicable unless it is replaced with an alternative development parameter in the particular overlay zone. In those instances where an Overlay Zone specifies a more restrictive development parameter, the Overlay Zone prevails. In an instance where an overlay zone specifies a more permissive development parameter the more permissive rule in the Overlay Zone replaces the parameter in the base zone. In instances where the Overlay Zone does not alter or explicitly abolish an applicable development parameter, the base zone parameters will continue to apply.
- The provisions of an Overlay Zone do not in any way override any obligations which arise out of National and Provincial Legislation.

A draft description of the ATC Local Area Overlay zone is attached as Appendix F.

Development agreements

Development agreements are important instruments in projects – and specifically large projects likely to roll-out over a lengthy period of time – to ensure that development as envisaged in spatial plans takes place.

Arguably, not all that is required to meet the strategic outcomes of the project could be met through its incorporation in zoning through establishing an Overlay Zone. Development agreements adds to the overlay zone provision through:

- Allowing greater latitude to advance local LSDF policies in sometimes new and creative ways.
- Allow public agencies greater flexibility in imposing conditions and requirements on proposed project.
- Affording landowners greater assurance that once approved, their projects can be built.

In support of the ATC implementation, agreements are envisaged dealing with inter alia:

- Shared responsibility related to the provision of infrastructure services and the phasing of infrastructure, including the extent and use of development contributions.
- Incentives offered to landowners (including the cost of public land to be made available for development and conditions associated with its development).
- Shared responsibility related to the formation and operation of institutional arrangements established in support of the ATC Overlay Area.

- Landowner and shared responsibility related to the provision of affordable and inclusionary housing.
- Shared responsibility related to undertaking environmental remediation work.
- Shared responsibility related to the provision and operation of public facilities.

The CCT's Services Agreement where the City allows bulk municipal services to be designed and or constructed by landowners/developers in lieu of development contributions is an example of agreements that could be concluded between the SM and landowners/developers. The Services Agreement is concluded and signed by all relevant parties before commencement of any design and/ or construction work.

The contents of a generic Services Agreement is outlined in Table 26. The process steps to be followed are outlined in Table 27.

Albeit it the Services Agreement above relates to infrastructure services, the model can be adopted for other work undertaken by landowners/ developers, including providing for affordable housing, public facilities, and environmental remediation work.

It is also likely that agreements will be required at two levels: the first being between major landowners acting collectively on shared obligations, services, and facilities, and second related to matters impacting on one landowner.

Table 26. Contents of Services Agreement

COMPONENT	EXPLANATION
Generic Services Agreement	
Annexure A: Development rights	Copies of the approved development rights reflecting the final SPLUMA/ LUPA and NEMA approvals as well as any further development agreements and correspondence stipulating development contributions payable, how escalation will be calculated, and when development contributions will be payable.
Annexure B: Municipal services	• An engineering report by a responsible engineer reflecting the municipal bulk infrastructure services which the developer must construct in lieu of development contributions (in accordance with the agreement). • A cost summary, design drawings and, if available at this stage, a tender report is to be included. • The tender report must reflect that a transparent tender process was followed and at least three contractors were evaluated. • If a tender report is not available at this stage of the contract, the Agreement must reflect an undertaking by the Developer to follow a transparent tender process to the satisfaction of the CCT (which will entail that at least three contractors will be evaluated).
Annexure C: Programme for completion of municipal services	The developer's programme for implementing the municipal services and undertaking to complete the construction of the municipal services in accordance with the dates and times as fully set out in the annexure.
Annexure D: Proxy	The authority of the developer's representative to sign documents (in the form of a proxy or a formal decision by the Directors).

Table 27. Steps for concluding a Services Agreement

STEPS TOWARDS COMPLETING THE SERVICES AGREEMENT	**1. Statutory Approvals**	Obtain relevant LUMS and other statutory approvals. The SPLUMA/LUPA approval along with any other applicable statutory approvals (NEMA, NWA, NHRA) will form part of the record submission in Annexure A.
	2. DC liability	Determine DC liability, as per DC calculator.
	3. Engineering Design	• Submission of external bulk infrastructure designs for approval. • The approved design will form part of the record submission in Annexure B. • Based on the above the extent of infrastructure eligible for a DC discount will be determined.
	4. Cost Estimate	• The Developer's consulting engineer must determine an accurate cost estimate of the bulk services using a detailed schedule of quantities. • This estimate must be based on recent market-related rates and the complete schedule reflecting the total cost must be provided as part of the record submission in Annexure B. • This cost estimate will be used to determine the quantum of the DC discount.
	5. Construction Programme	A clear, itemised construction programme reflecting the contractual commencement- and completion date must be submitted with the agreement as part of annexure C.
	6. Contractor Procurement	When procuring a Contractor to install the infrastructure specified in the Services Agreement, the Developer must follow a fair, equitable, transparent and competitive process of calling for at least 5 for bids from infrastructure providers and appoint the bidder offering the most cost effective bid.
	7.Tender Evaluation	• A detailed tender report, reflecting the tender evaluation and award process, must be submitted to the City to finalise the cost of the Bulk Engineering Services. • On completion of the Consultant's report the City must acquire an independent evaluation of the tendered price. • Both the above reports will form part of the record submission in Annexure B.
PRIOR TO BANK APPROVAL	**8. Bank Guarantee**	• Where the developer requests Building Plan approval prior to the completion and handover of the works, a guarantee equal to the amount of the Municipal Services must be provided to the City by a reputable financial institution. • The guarantee must cover the cost of providing the infrastructure and the guarantee must be strictly in accordance with the city's approved format. • Only once the guarantee has been approved by the City may building plan approvals be granted where the DC liability owed by the applicant has not been met through either payment or infrastructure value.

Environmental Authorisation

An application for environmental authorisation may be made for listed activities likely to be required as part of the redevelopment. This could be undertaken at the level of the entire corridor, at the precinct level, or for individual developments. Figure 27 indicates key areas and listed activities likely to be applicable in these areas (summarised and not exhaustive – consult GN 324-327 of 2017 for full listings).

Consideration should be given to the scale at which environmental authorisations are applied for. A single integrated environmental authorisation could be applied for in respect of the entire corridor. However, the level of detail required to accurately assess and manage the environmental impacts may not be forthcoming at an early stage. In addition, some of the impacts that require management, such as the closure of industrial facilities, should be managed by the landowners on the 'polluter-pays' principle. It is therefore recommended that environmental authorisations be considered as follows:

- **Industrial closure and decommissioning applications or soil contamination assessments** in terms of Part 8 of the National Environmental Management: Waste Act should be undertaken on a site-specific basis by the respective owners of heavy industrial sites in Precincts, 3, 6, 7 and 9.
- The proposed **Northern Extension** into agricultural land to the north (Precinct 10) should be considered in an environmental and agricultural impact assessment.
- **Activities in the Papegaaiberg Nature Reserve** should be considered in a Protected Area Management Plan to be prepared for the reserve in line with the requirements of the National Environmental Management: Protected Areas Act and the intentions of the LSDF, notably around improving access and amenity value of the reserve. Environmental authorisation should be sought for listed activities associated with implementing this management plan.
- **Activities that affect the Plankenbrug and Eerste Rivers**, including new or upgraded bridges, pedestrian infrastructure, flood mitigation measures, and development in the floodplain (especially at Precinct 1: Droë Dyke) should be considered in a **corridor-wide hydrological and aquatic study**, and the recommendations of this study should inform an application for environmental and water use authorisation of the required works, as well as Maintenance Management Plans to be adopted, to minimise future applications.
- Any changes of land use in areas zoned for Open Space may require environmental authorisation and should be individually confirmed with the competent authority.

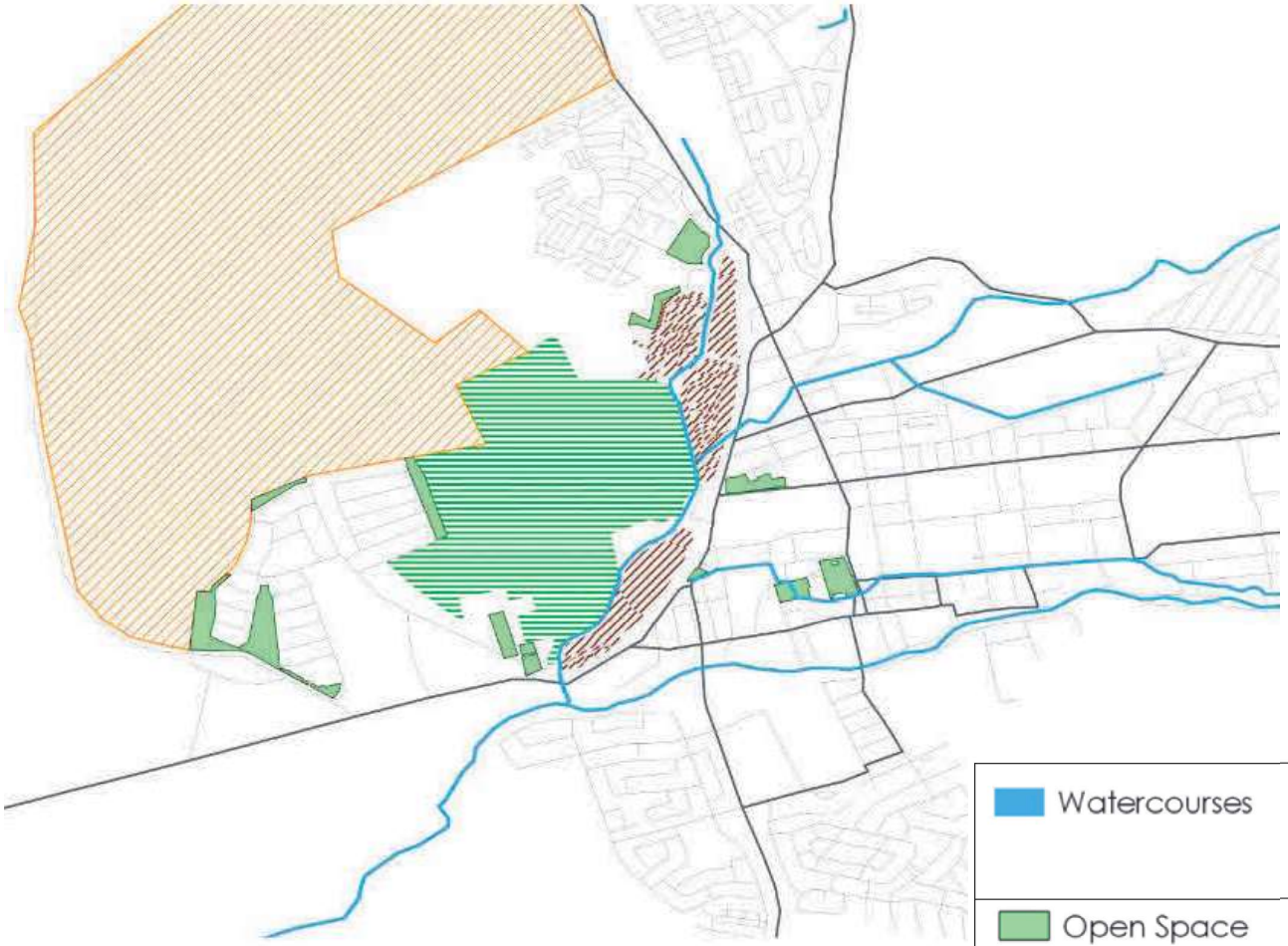


Figure 27. Environmental Authorisation spatial parameters (Infinity Environmental , 2021)

Watercourses	Inside or outside urban areas: 10 cubic metres of material removed from, deposited in, or moved in a watercourse (Activity 19 of Listing Notice 1) Outside urban areas: infrastructure greater than 10 square metres in extent (Activity 14 of Listing Notice 3)
Open Space	Transformation of land bigger than 1 000 m² to residential, retail, commercial, industrial or institutional use (zoned for conservation, protected areas, or sensitive areas identified in an EMF). (Activity 15 of Listing Notice 3)
Protected Areas	Widening of roads, clearing of indigenous vegetation (Activities 18 and 26 of Listing Notice 3)
Agriculture	Residential, mixed, retail, commercial, industrial or institutional development greater than 5 hectares (inside urban areas) or 1 hectare (outside urban areas) (Activity 28 of Listing Notice 1)
Industrial	Residential, retail, recreational, tourism, commercial or institutional developments of 1 000 square metres or more, on land previously used for mining or heavy industrial purposes (Activity 26 of Listing Notice 1) Decommissioning of activities such as fuel storage (Activity 31 of Listing Notice 1)

Heritage Authorisation

The primary trigger for Section 38 are categories of development listed in Section 38 (1) of the NHRA as indicated in Diagram 6 below.

These categories of development trigger the submission of a Notification of Intent to Develop (NID) to Heritage Western Cape (HWC). A HIA is triggered if heritage resources are to be impacted.

There are three types of heritage management areas within the ATC:

- **Type 1:** Large areas within the ATC do not warrant the applicable of the provisions of Section 38 given no or low heritage significance and/or high degree of resilience to accommodate change. Examples include the redevelopment of large areas of the Distell and George Blake precincts. In such areas, exemptions from the provisions of Section 38 should be applicable through a Heritage Management Agreement entered into between the Stellenbosch Municipality and HWC in terms of Section 42 of the NHRA. Exemptions could be also be applicable to Section 34 in the case of permitting requirements for the alteration of buildings older than 60 years not deemed to be worthy of formal protection. However, the focus here is on larger scale development activities as covered in Section 38. Until such time that Section 38 exemptions apply, Section 38 (1) categories of development within the ATC will need to be subject to at least the submission of a NID.
- **Type 2:** Some precincts contain a focused set of heritage issues and/or heritage sub-precinct are thus likely to trigger the need for a focused HIA process. An example includes the redevelopment of the Bergkelder Precinct.
- **Type 3:** A few precincts have a high degree of heritage significance and sensitivity to accommodate change and are therefore likely to trigger the need for a more complex HIA process depending on the nature and degree of intervention. Examples the Oude Libertas and Papegaaiberg Precincts.

In accordance with the above types of heritage management areas, three levels of heritage assessment are identified:

- **Level 1:** The submission of a NID to comply with Sec 38(1) with the recommendation that no further HIA is required.
- **Level 2:** A HIA focused on a specific set of issues or heritage sub precincts, which potentially could be "signed off" at precinct plan or SDP level.
- **Level 3:** A comprehensive HIA potentially requiring a level of heritage expertise and involving detailed assessment at different scales including precinct plan, site development plan (SDP), building plan and landscape plan level.

There is a range of heritage issues across the study area. Many of the overarching issues could be addressed in the form of a precinct level plan to be informed by an urban design and heritage framework and resulting in the designation of an overlay zone.

This is a more proactive mechanism compared to the reactive nature of HIA processes. This could also provide the basis for exemptions from the general provisions of Section 38 and Section 34 of the NHRA, as well as Section 35 in terms of archaeology.

The precincts and sub precincts to be subject to HIA processes are specified in the table below. Similarly, the broad guidelines or directives that need to be addressed in the precinct plan are indicated.

It is recommended that a Heritage Advisory Panel (HAP) be constituted under the auspices of the Municipality or whatever institutional mechanism is developed for strategic projects identified within the ATC. The purpose of the HAP would be provide input into heritage assessment processes within the ATC, specifically to advise on the briefs for the precinct plans and overlay zones, to ensure that the guidelines/directives relating to area character and other heritage issues are adhered to, and to provide input into the heritage approval process for the individual precincts.

The precinct plans for the individual precincts should specify the heritage processes to be followed for each precinct and identify exemptions from NHRA processes (Sections 34, 35 and 38). Typically, exemptions would be related to no or low levels on a combination of no or low of heritage significance and potential heritage impacts.

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50 m in length;

(c) any development or other activity which will change the character of a site—

(i) exceeding 5 000 m^2 in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m^2 in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

Diagram 6. Section 38 (1) of the NHRA

Table 28. HIA processes per precinct

Name	Acceptable thresholds of change	Heritage Process	
		Level	Scope
CA 1 GATEWAY CONDITION	High threshold; ability to accommodate change. Adherence to overall indictors related to gateway condition; edge treatments and retention of mountain views to be captured in the SDP.	Level 1	No HIA required to the east of the Adam Tas Road scenic corridor.
		Level 2	HIA at SDP level to stipulate nature of edge conditions along Adam Tas Road, building massing and form at interface to enable mountain views to the east, and landscaping.
CA 2 SAWMILL SITE	High threshold; ability to accommodate change. Adherence to overall indicators for framing elements along Adam Tas Road to be captured in the SDP.	Level 2	Approved HIA (2015). SDP to stipulate nature of edge conditions along the interface with Adam Tas Road, building massing and form to frame the road (not parking), the retention of tree belts along the boundaries of the site, and the retention and enhancement of the mid-20th century industrial building typologies. Compliance with the indicators of HIA (2015).
CA 3 OUDE LIBERTAS	Low threshold; minimal opportunity to accommodate change in the immediate context of the Oude Libertas complex and in the vineyard forecourt.	Level 3	Range of interventions subject to a HIA process including visual, built form, social and archaeological assessments, and a comprehensive public participation process. Precinct plan, SDP, building and landscape plan level of heritage assessment.
CA 3.1 CEMETERY	Low threshold; minimal intervention related to opportunities for enhancing heritage values including public appreciation.	Level 3	Range of interventions subject to a HIA process with an emphasis on social-historical, archaeological, landscape, public access and memorialisation issues, and a comprehensive public participation process.
CA 4 DISTELL	High threshold; ability to accommodate change. Adherence to the overall indicators related to framing elements facing onto Adam Tas Road to be captured in the precinct plan and SDP.	Level 1	No HIA required to the east of railway line except for addressing potential impacts on the landscape setting of Klein Vredenburg
		Level 2	HIA at Precinct and SDP level to stipulate the nature of edge conditions along the Adam Tas Road, building massing and form (including setbacks), adaptive reuse of Cape Revival Complex.
CA 5 DORP STREET	Low threshold at it relates to Dorp Street; low ability to accommodate change at point of entry into the historic core. Adherence to the indicators related to the Dorp Street interface, context of the Rupert Museum and riverine corridor.	Level 3	HIA at precinct plan and SDP level. Range of interventions subject to a HIA process with emphasis on townscape and landscape issues.
CA 6 BOSMAN'S CROSSING AND OUDE MOLEN	Medium to high threshold; ability to accommodate change. Adherence to the indicators for this precinct.	Level 2	Approved Oude Molen HIA (2020) Focused HIA for the balance of the precinct to address potential pedestrian linkage across the railway line into the historic core, the extension of Distillery Road as a linkage route through the precinct, pedestrian access along the Plankenburg River and onto the Papegaaiberg and the extension and enhancement of the light manufacturing, mixed use quality of the area, based on the positive precedent established by the grouping of buildings around Bosman's Crossing

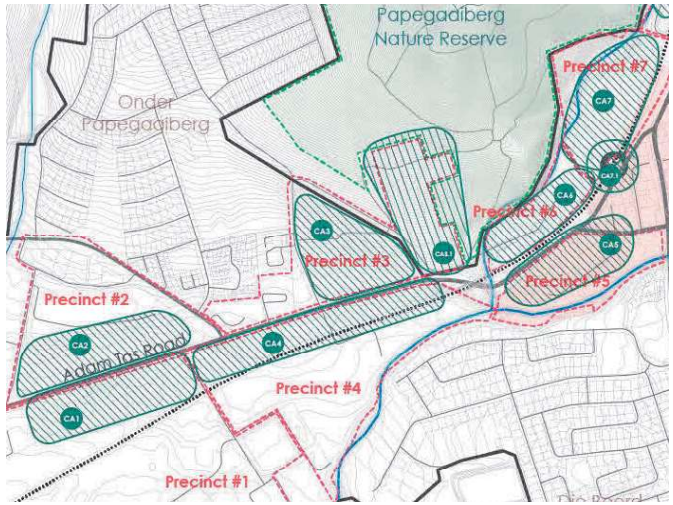
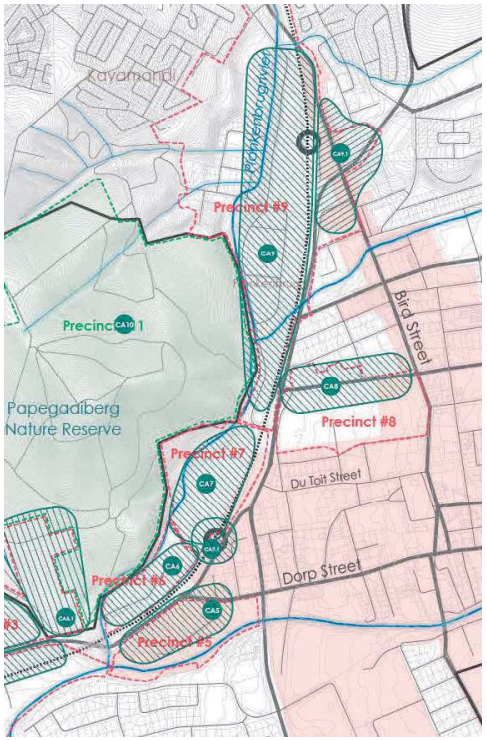


Table 29. HIA processes per precinct (continued)

Name	Acceptable thresholds of change	Heritage Process	
		Level	Scope
CA 7 BERGKELDER **CA 7.1 THE STATION**	High Threshold; ability to accommodate change. Adherence to the indicators to be incorporated in the precinct plan and SDP.	Level 2	Precinct plan to stipulate structuring elements contributing to site character including orthogonal pattern affording visual connectivity to the Papegaaiberg, the mid 20TH century industrial built form character, figure ground relationships and the interface with the Plankenburg River. Establish linkage opportunities between precincts 6 and 7. Focused HIA at SDP level related to core mid-20th century grouping of structures to the south adjacent to station and Oude Molen Precinct.
CA 8 Van der Stel	Medium threshold; ability to accommodate change. Adherence to indicators to respond positively to the strategic location of the precinct at the entrance to the historic core and in relation to Bergkelder and George Blake industrial precincts, and the need to retain and enhance to a green public space network.	Level 2	HIA at precinct plan and SDP level to stipulate adherence with the indicators.
CA 9 GEORGE BLAKE	High threshold; ability to accommodate change. Adherence to overall guidelines related to edge conditions (interface with Plankenburg river and access to Papegaaiberg) to be captured in the overlay zone/precinct plan.	Level 1	No HIA required. Overlay zone/precinct plan to stipulate nature of edge conditions, potential landscaped pedestrian zone adjacent to Plankenburg river, the retention of the orthogonal street pattern to maintain visual/spatial linkages to the Papegaaiberg, and spatial linkages with Kayamandi.
CA 9.1 BIRD STREET	Relatively high threshold; ability to accommodate change. Zone around the station and the link to Bird street has a more limited ability to accommodate change	Level 2	A SDP for the station area and linkages to Bird street to be subject to a HIA with the focus on the social history and significance related to forced removals in DuToitsville. To address opportunities for memorialization and to include a public participation process in collaboration with the affected community.
CA 10 URBAN TRANSITION AND GATEWAY (NORTH)	Medium level threshold, ability to accommodate change. Adherence to guidelines to balance the urban expansion of the town while responding to the landscape context and thus avoiding peripheral sprawl.	Level 2	HIA at precinct plan and SDP level to stipulate adherence with the indicators.
CA 11 PAPEGAAIBERG	Low threshold; ability to accommodate change. A natural area with minimal opportunities for built form interventions.	Level 3	Precinct plan focused on land use intensity zones; passive and active recreation spaces, permitted and prohibited activities and a landscape framework plan identifying soft and hard landscaping elements (pathways, benches, shaded areas) including a possible amphitheatre on the lower slopes; and the identification of memorialization opportunities to be subject to a HIA process to include adjacent landowners, range of user groups and community representatives



8.2.4. Guidelines

Development guidelines provide preferred options for executing policy or aspects of plans in a manner which will give effect to policy.

The LSDF guidelines are available as an additional document and summarised in Appendix D.

Guidelines are provided at the broader ATC scale as well as for each precinct in relation to:

- Urban structure and built form.
- Heritage and culture.
- Landscape.
- Environmental matters.
- Engineering services.

8.2.5. Fiscal measures

Fiscal measures which can support the ATC include:

- The UDZ tax incentive – administered by SARS – which aims to encourage private sector-led residential and commercial development in inner-city areas with developed public transport facilities. SM needs to confirm whether the UDZ incentive will be extended beyond March 2021, and if so, apply to establish an UDZ to include the whole of the ATC area.
- A reduction in municipal rates subject to meeting certain development objectives or standards. In the case of Jo'burg's "Corridors of Freedom" project, a rates rebate of 75% in the first two years is applicable, while 50% of rates are rebated in the first year of operation. In addition, Social Housing Institutions (SHIs) receive a 50% rate rebate every year, and there is a rebate in place for sectional title developments over a density of 80du/ha.
- A reduction in service connection or plan scrutiny fees.
- A specific relationship between ATC landowners/developers and financial institutions to ensure favourable lending rates for meeting specific objectives. Debt financing constitutes an important aspect of financing developments, with debt repayments making up a substantial portion of developer expenses. When a lending rate decrease is facilitated between financial institutions and landowners/ developers, it can be cut costs and increase the development surplus.

The SM needs to determine to what extent municipal rates reimbursements and lower charges could be provided to promote achieving ATC objectives.

8.2.6. Financial measures

A strategic objective of the ATC – recognising the multitude of spending demands on the SM – is that the project should largely fund itself, without additional municipal spending. The SM's main contributions rather relate to the allocation of development rights, the way its assets are used to enable the project, and supportive LUMS, infrastructure implementation, and fiscal measures.

Nevertheless, some proactive planning/budgeting for supportive infrastructure, public facilities, and environmental remediation/management from the SM can be expected, to meet specific municipal objectives related to, or in response to the ATC.

As part of the LSDF, the possible development contributions associated with bulk services required for the minimum and maximum bulk of development proposed have been calculated. This work is included as Appendix G.

It is understood that this work will be reviewed as the process proceeds (also checking the anticipated cost of infrastructure against infrastructure commitments already included in municipal plans and budgets). Critically, it appears that the extent of contributions required will cover the cost of infrastructure needed to serve the development (and, also serving needs in adjoining areas).

8.2.7. Asset management

In relation to government-ownership, the following land holdings are critical to the ATC:

- Van der Stel, the Plankenbrug River embankment (owned by the SM), and Papegaaiberg (owned by the SM).
- Droë Dyke (owned by the National Department of Public Works).
- The rail corridor and adjacent land (owned by PRASA).
- An undeveloped school site in Onder Papegaaiberg (owned by the WCG).

The preamble to the SM's policy on the management of its immovable property recognises the inequitable spread of ownership of immovable property throughout the municipal area, the historical causes thereof, and the leading role of the Municipality in redressing these imbalances by ensuring that the immovable property assets under its control are dealt with in a manner that ensures the greatest possible benefit to the Municipality and the community that it serves, and makes available economic opportunities. The preamble also recognises that the Municipality must manage its immovable property in a fair, transparent, and equitable manner. Section 5.1 states guiding principles for the policy, including:

- The use of the Municipality's immovable property to promote social integration, to redress existing spatial inequalities, to promote economic growth, to build strong, integrated and dignified communities and to provide access to housing, services, amenities, transport and opportunities for employment.
- The promotion of access by black people to the social and economic benefit of immovable property ownership, management, development and use.

The policy recognises three broad methods of property disposal:

- Competitive processes (through formal tenders, public auction, closed tenders, and/ or unsolicited bids).
- Non-competitive processes (where non-viable property is disposed to an adjacent owner regarded as the only party who can use the land, or viable property is disposed without a competitive process).
- The exchange of land (when it is advantageous to the Municipality and other parties to exchange land in their ownerships and will achieve best consideration for the municipality).

At the level of principle it is recommended that the SM and other public bodies who all have similar property related policy as the municipality employ property assets in their ownership to the benefit of the overall project objectives of the ATC, as opposed to a means to raise funding for general service delivery.

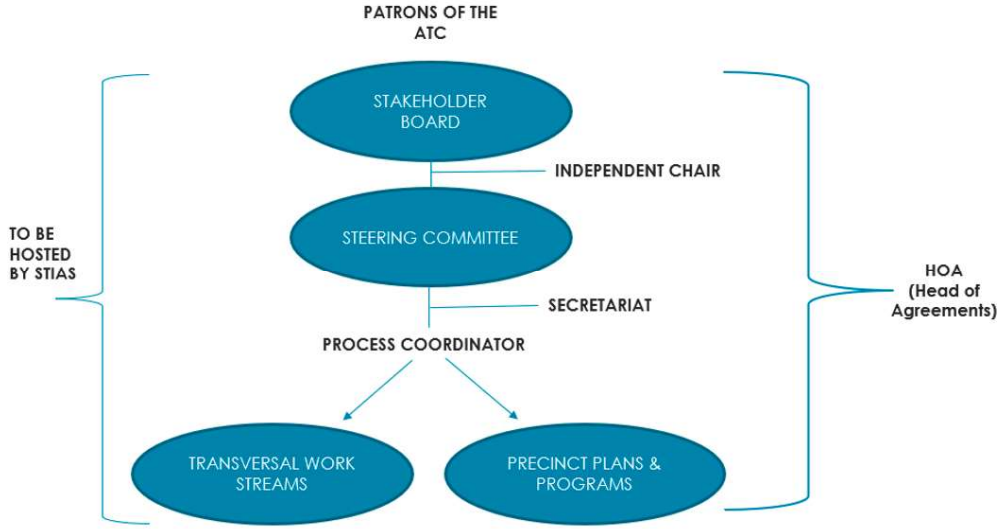
8.2.8. Process and institutional arrangements

As indicated in section 1.3, ODA was appointed by the project partners in 2019 – following on the pre-feasibility work, finalization of the concept ATC Development Framework and its testing for engineering and macro-economic impact – to frame recommendations on the governance and management of the development process going forward.

ODA found that the ATC development process lacks the necessary governance and management arrangements – and is under resourced – when considering the preparatory work required as the process attempts to progress to the planning and mobilisation and implementation phase(s) of work. The main reason for this may lie in the lack of appreciation of the need for collective proposals, decisions and commitments required from the main landowners (starting with the private landowners) to enable the approval and allocation of additional land use rights. In this context ODA noted that:

- The conceptual phase work was predominantly produced via a STIAS Fellowship, the MSDF preparation process, and voluntary action funded by a limited number of private sector stakeholders.
- The current process is governed by an Interim Steering Committee with draft terms of reference, and one project manager with a

A: Conceptual/Planning Phase



B: Pre-implementation

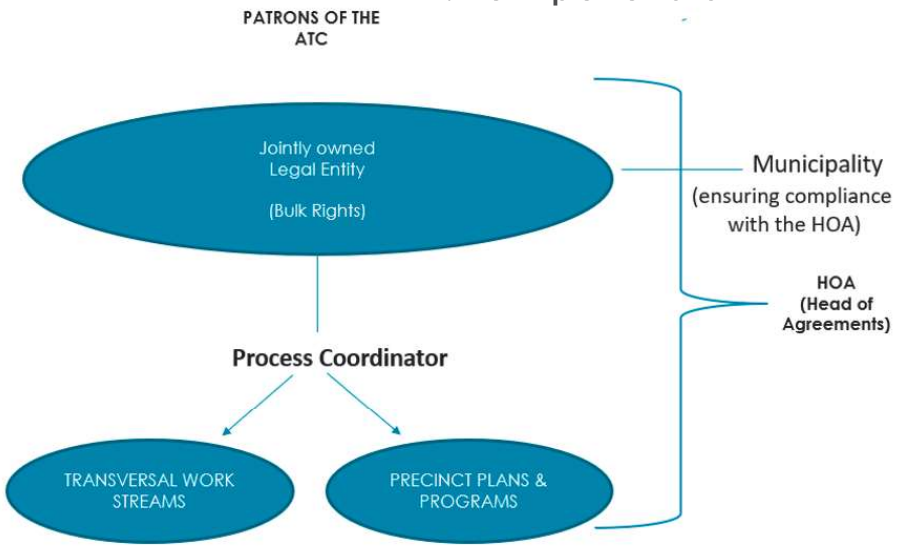


Table 30. Roles and responsibilities related to the governance structure

INTERIM STEERING COMMITTEE	PROCESS COORDINATOR	STAKEHOLDER BOARD	PATRONS
The interim steering committee must build consensus on the following matters: • The long-term vision for the town and its environs and the role of the ATC development process in pursuing this vision. • The values and principles that should guide the unfolding of the ATC development process. • The beneficiation model that will guide the ATC development process. • The duties and obligations (terms and conditions) on which the land use rights to be defined in the HOA will be premised. • The structure and ultimate composition of the steering committee, stakeholder board and finally the legal entity that will be the custodian of the bulk rights to be allocated. • The appointment of patrons to the process. • The immediate term resourcing arrangements required to take the process forward.	**Develop and maintain the process architecture and management arrangements to deliver on:** • The overarching planning, infrastructure and environmental aspects of the ATC development process. • The overarching finance and beneficiation framework for the ATC development process. • The model for innovation and incubation to support the ATC development process. • The overarching communication and consultation plan in support of the ATC development process. • The framework for documentation, research and learning in support of the ATC development process.	**Consider the interim steering committee's recommendations on:** • The ultimate composition of the steering committee and stakeholder board. • Candidates who could serve as patrons to the process. • The HOA (i.e., the SM's requirements pertaining to the duties, obligations and conditions on which the issue of land use rights will be premised). • The appointment of the proposed process coordinator. • The resourcing of the process over the next 18-36 month period. • The framework for the consolidated management of land use rights (i.e., the legal structure to guide the ATC development process over the medium to long term).	• To be the guardians of the vision and the values that drives the process; • Patrons must be provided with the higher ideals and values of underpinning the process when approached; • Patrons should be chosen with due recognition for and appreciation of personal positions and interests; and • The choice of patrons should allow for inter-generational "handing-of-the-baton".

Table 31. Short-term process/institutional actions

1st Quarter 2020	2nd Quarter 2020	3rd Quarter 2020	4th Quarter 2020	1st Quarter 2021
• Wrap-up pre-feasibility phase and produce proof of concept in form of a Prospectus or similar document. • Settle process leadership, governance, management and resourcing arrangements for next phases of work (make the required appointments). • Initiate strategic planning/visioning and next phase communication and consultation process.	• Settle HOA with the main landowners and those who have been invited to join the process.		• Secure the appropriate land-use framework. • Prepare interim use, demonstration project and incubator strategy.	• Develop lead project strategy.

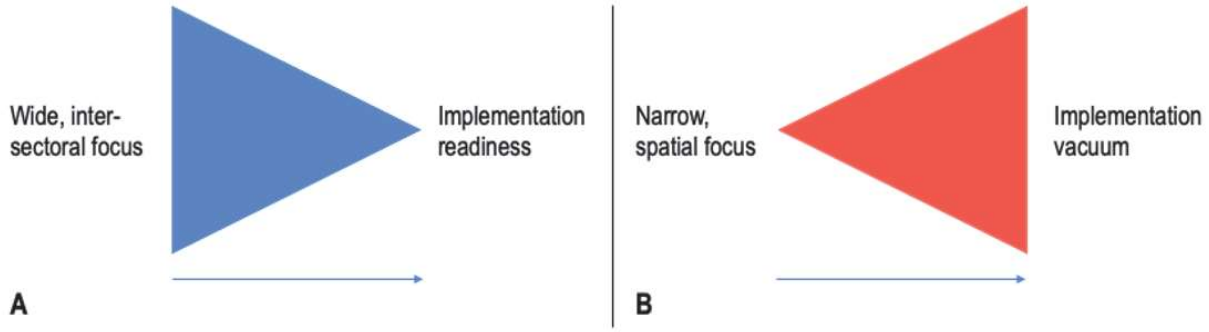


Diagram 7. Contrasting approaches to the ATC task

limited budget relying on an ad hoc resourcing model (the services of this project manager was termination towards the end of 2019).

- The current process requires significant capacity enhancement on the side of the SM to deliver the required planning policy and land use framework.
- The current attempts at building a "coalition of interest'' relies heavily on a stand-alone corridor-based spatial concept.

In support of the ODA findings, the case studies undertaken following the ATC conceptual phase indicated that successful large transformation projects all developed special purpose core capacity with clear mandates to assist in executing the vision and plan to the "side" of accountable institutions mandated by law to undertake local spatial planning and land use management. Comparing these projects with the ATC, the case study work concluded that the ATC will require institutional arrangements enabling:

- Coordination of the detailed planning initiatives by the various landowners within the framework set by the LSDF, the Adam Tas Corridor Local Area Overlay zone, and associated agreements/measures.
- Assistance in preparing and monitoring of applications related to the ATC area for decision-making by the SM and other statutory bodies.
- Assisting in preparing detailed planning for precincts requiring an active role by the Municipality (e.g., the George Blake and Kayamandi North areas).
- The storage and dissemination of knowledge related to the project on behalf of stakeholders.
- Advocacy and fundraising related to the project.

In concluding its initial work, ODA recommended that clear process governance proposals should be set for the different work phases.

In parallel with preparation of the LASDF, ODA undertook further work in line with their earlier recommendation. The further work – discussed with key corporate and institutional partners in the ATC process – is attached as Appendix H. Included are principles guiding the institutional design process, as well as the purpose, functions, composition, tasks, financing and legal form of two bodies proposed, an Independent Mediating Body (referred to as the ATC Development Trust), and a collective ATC landowners organisation.

8.2.9. Advocacy

In terms of the Constitution and associated legislation, local government in South Africa has far-reaching obligations and responsibilities. Key is to direct – within the context of national and provincial policy – the provision of services, promotion of a safe and healthy environment, and social and economic development, in a manner which is sustainable. Determining and managing the direction, nature, and form of spatial development within the municipal area, is a key function. Elected representatives carry significant authority in relation to decision-making. Their task is a difficult one. While acting upon the technical work and inputs of officials, elected representatives are often required to deal with and mediate between different needs and requests on a daily basis, whether emanating from a specific sector (e.g., one functional area struggling from a lack

of resources to fulfill its services), a community, individual citizen, or the corporate sector.

Arguably, they are also not expected – or have the time – to fully comprehend the technical detail embodied in the work of officials. They should, however, lead at the level of principle, and direct, inspire, and monitor accordingly. The same applies to private sector leadership.

What can a municipal leadership and advocacy agenda look like? What should be foremost on the mind of leadership? What should they be particularly vigilant about, advocate for, and monitor in every initiative?

Table 32 below begins to outline such an agenda from the perspective of LSDF.

A more detailed exploration of public benefit framework is provided in Appendix I. Arguably, this framework is key to a leadership advocacy agenda.

8.2.10. Knowledge management

Knowledge management is a key instrument contributing to efficient, appropriate and meaningful urban development and governance. It has numerous dimensions: Municipalities provide and manage services based on various knowledge streams, including technical information related to various services and information related to citizen need. Citizens interact with municipalities based on what is known to them, or what they can expect. Citizens also use places and associated opportunity based on knowledge, or the lack thereof. Arguably, the more knowledge is available, and the more all stakeholders contribute to the formation of knowledge, the more viable and appropriate interventions will be, the better municipal partnerships, and the more value can be extracted from the places they engage with by citizens. Critical also, knowledge management is important throughout the project cycle, from project inception to execution, and management of the development completed.

Table 32. An advocacy agenda for the ATC

Issue	Specific Concerns Relating to Issue
Public Benefit	• The extent to which local residents will benefit from opportunity created through the project (throughout the project cycle)
The "balance" of the overall development	• The extent to which the project exhibits a balance of uses providing for a vibrant, diverse, and 24/7 living environment.
Appropriateness to context	• The extent to which the project meets local needs (e.g., housing of different kinds, employment, entrepreneurial opportunity, and so on). • The extent to which the project recognises aspects of history and enables cultural expression.
Project institutionalisation	• The extent to which institutional arrangements for the project are appropriate to ensure speedy delivery. • The extent to which the project harnesses public, private, and community resources towards common objectives.
Project resourcing	• The extent to which the project is sufficiently resourced to ensure implementation. • The extent to which the project can fund itself and assist to alleviate pressure on government resources for infrastructure, housing, public facilities, and so on.

Table 33. Aspects of knowledge management

Aspect	Explanation	Comment
Knowledge creation/acquisition	• How knowledge about what is possible in relation to the project is acquired and created, and by whom.	
Knowledge sharing	• Whether knowledge about the project is generally available to those seeking better understanding of what is planned/possible.	
Knowledge utilisation/adoption	• Whether knowledge about current ways of doing and precedent – and its consequences – are used to develop more appropriate responses.	
Knowledge recording/storage	• Whether understanding/learning about the project is actively recorded and stored for others to use/learn from.	

In relation to the ATC project, critical aspects of knowledge management requiring attention are outlined in the table below.

The history of the ATC project exhibits innovative ways of knowledge creation, including the involvement of STIAS through availing Fellowships and its space and facilities for the exploration of aspects related to the project.

At this stage, the following aspects of knowledge management appears critical:

- Packaging the LSDF work – including the way rights are to be allocated and the associated landowner obligations – in a manner which enables stakeholder discussions.
- Initiating an online platform for information dissemination and exchange on the project.

8.3. Summary of Incentives

Incentives should be carefully considered by the Municipality because they represent (in some cases) a "discount", or waived cost that remains a cost to be resourced from elsewhere on the Municipality's budget, i.e., incentives will need to be budgeted for and therefore affordable, and therefore will need to be costed. It is also critical that any incentives that may be offered are made explicit in decision-making processes to ensure transparency and fair competition on equal terms.

Arguably, the most significant incentives offered to landowners through the ATC process are the increased land development rights and associated streamlined development process. Table 34 below summarises a range of incentives that could be considered in further deliberations on the project.

Table 34. Summary of possible incentives

INCENTIVE	EXPLANATION	REQUIREMENTS	ACTIONS REQUIRED
National incentives			
Urban Development Zone	The UDZ is a tax incentive administered by SARS, and aims to encourage private sector-led residential and commercial development in inner-city areas with developed public transport facilities. The UDZ tax incentive has, in terms of the 2020 budget announcement, been extended for one year, from 31 March 2020 to 31 March 2021[1].	The UDZ allows businesses which fall within its area to benefit from significant tax savings for building development which fall into the following categories: • The erection, extension or improvement of or addition to an entire building. • The erection, extension, improvement or addition of a part of a building representing a floor area of at least 1 000 m². • The erection, extension or improvement of or addition to low-cost housing. • The purchase of such a building or part of a building directly from a developer.	• SM needs to confirm whether the UDZ incentive will be extended beyond March 2021. • •SM needs to apply to establish an UDZ to including the whole of the ATC area.
Restructuring Zones (RZs)	• RZs are areas identified by municipalities as areas where social housing will be accommodated. • Social Housing is a rental or co-operative housing option, which requires institutionalised management. It is provided by accredited Social Housing Institutions (SHIs) or in accredited social housing projects. Social housing provides good quality rental accommodation for the upper end of the low income market (R1 500-R15 000).	The state subsidises social housing in order to ensure provision of rental housing of exceptional quality, at affordable rentals in well located areas. This is done through capital grant funding called the Consolidated Capital Grant (CCG). The average cost of construction is R426 000 per unit (including land and bulk services) and the current quantum that the SHRA administers is R271 867 per unit.	SM needs to apply to geographically extend its RZs to include the whole of the ATC area.
Spatial planning related incentives			
Increased development rights	Increased development rights through a change in the Zoning Scheme By-law.	In the case of the ATC, the new development rights are arguably the most significant incentive granted to landowners, specifically as the current zoning applicable to most of the area is very restrictive in relation to the nature of uses which are permitted.	Agreement to the proposed ATC Local Area Overlay zone as outlined in the LSDF.
Density bonuses	Density bonuses are often applied to achieve agreed planning objectives, for example, if the maximum development density on the property is 80 units/ha, and the developer wants to provide an additional 20 affordable units, an equivalent density bonus is awarded, allowing the developer to provide these affordable units without decreasing the number of market-orientated units. Although extra costs are incurred by the developer with the provision of affordable units, revenue from the market units are retained.	Arguably, through the development rights to be allocated, the ATC incorporates "bonuses", aimed at both financial sustainability and achieving agreed societal objectives.	

1 https://www.sars.gov.za/ClientSegments/Businesses/My-Bus-and-Tax/UDZ/Pages/default.aspx

Table 35. Summary of possible incentives (continued)

INCENTIVE	EXPLANATION	REQUIREMENTS	ACTIONS REQUIRED
Spatial planning related incentives			
Parking requirements	Parking takes up considerable space and contribute to development costs. A lesser parking requirement can lower development costs and also contributes to other project aims such as promoting NMT.	• The City of Jo'burg is developing a mechanism to quicken the planning application approval to inclusionary housing developments through ensuring projects that better meet the mandate of the City are prioritised.	SM must agree on parking requirements applicable to the ATC area as a whole.
Faster plan approval	• Time delays in obtaining land rights through development applications and building plan approvals reflects in the opportunity cost carried by the private developers, while taxes and levies accumulate to make up considerable holding costs for the property. • Streamlining plan approval will save developers time and money while ensuring fast-paced property development, including housing provision.		• SM needs to decide whether the whole of the ATC or specific uses will qualify for faster approval. Making provision for specific uses only may not assist because there are dependencies between rolling out different activities. • The successful implementation of this incentive necessitates improved synchronisation of application procedures between municipal departments to truly fast-track development.
Other Municipal Incentives			
Bulk service contributions	Bulk services are payable to the municipality when rezoning takes place to increase the rights and built intensity of properties. The cost is designed to upgrade the bulk infrastructure in the area to accommodate higher intensity development. Bulk service contributions could be reduced for certain types of uses.	Ideally, in the case of the ATC, bulk service contributions, connections, and associated payment holidays should be determined for the area as a whole.	Incentives related to bulk services should be worked out as part of the overall services agreement for the ATC.
Services agreements for private sector design/ implementation of bulk services	The municipality can allow bulk municipal services to be designed and/or constructed by landowners/ developers in lieu of development contributions		
Bulk service infrastructure "holidays"	Delaying bulk payments helps curb the initial expenses of the developer. An advantage of this incentive is that the municipality still receives a financial contribution, albeit delayed, from the developer, negating a decline in municipal revenue.		
Bulk service connection times	Similar to the case of faster plan approvals, reducing connection time to bulk services saves the developer time and money.		

Table 36. Summary of possible incentives (continued)

INCENTIVE	EXPLANATION	REQUIREMENTS	ACTIONS REQUIRED
Other Municipal Incentives			
Municipal rates	With this incentive, a certain percentage of municipal rates are reimbursed. Current monthly rates payable by the developer to the municipality are determined by the property use and value.	The mechanism is implemented in the City of Jo'burg's Corridors of Freedom project. When certain development standards and density objectives are met with a development in this area, a rates rebate of 75% in the first two years is applicable, while 50% of rates are rebated in the first year of operation. In addition, SHIs receive a 50% rate rebate every year, and there is a rebate in place for sectional title developments over a density of 80du/ha[1].	The SM needs to determine to what extent municipal rates reimbursements could be provided to promote achieving ATC objectives.
Releasing public land for development without charge	Government land could be released at minimal or no charge in order to meet agreed development objectives.	Three sites are particularly significant in the ATC: the nationally owned Droë Dyke, municipally owned Van der Stel, and the provincial school site in Onder-Papegaaiberg.	Government can release their land to enable achievement of agreed development objectives.
Lending rates	A specific relationship could be established between ATC landowners/developers to ensure favourable lending rates for meeting specific objectives. Debt financing constitutes an important aspect of financing developments, with debt repayments making up a substantial portion of developer expenses. When a lending rate decrease is facilitated between financial institutions and developers, it can be an important incentive for private developers, cutting expenses and increasing the development surplus.		
Non-monetary incentives	Various non-monetary incentives could include policy support, institutional support for the development, technical assistance, and a favourable (or stream-lined) regulatory regime, leadership advocacy, and knowledge management support.		

1 https://www.sapoa.org.za/media/2948/inclusionary-housing_revised.pdf

8.4. A High-Level Implementation Plan

A high-level implementation plan for the ATC following completion of the Draft LSDF is indicated in Diagram 8.

The implementation plan illustrates that considerable work remains to be done prior to implementation of the ATC and following upon completion of the LSDF. Ideally, given the extent of development envisaged, discussion with major landowners should commence in parallel with finalisation of the LSDF (and prior to statutory LSDF public participation) with a view to obtaining high-level agreement on proposed land use rights, and the associated obligations, incentives, and processes.

Apart from proceeding as individual "developers" in response to the LSDF, landowners will have to act collectively, specifically in relation to the provision of shared public facilities and infrastructure (which may be designed and implemented by landowners/developers in agreement with SM). It would be appropriate to establish institutional arrangements for joint action early in the process.

As outlined elsewhere, the ATC LSDF and proposed Local Area Overlay zone is part of the same interdependent package. It would appear sensible to undertake related public participation as one initiative; advertising the LSDF and Local Area Overlay zone simultaneously.

Landowners can finalise precinct planning in parallel with the finalisation of service agreements related to shared obligations.

8.5. Monitoring and Evaluation

Monitoring and evaluation and evaluation will require a different focus as the project proceeds.

At this stage, progress on the following aspects appear most relevant for monitoring and evaluation:

- Landowner and SM administrative agreement on:
  - The Development Framework, the Local Area Overlay zone, and associated processes.
  - The phasing and manner of infrastructure provision.
  - Landowner obligations.
  - Government incentives in support of the project

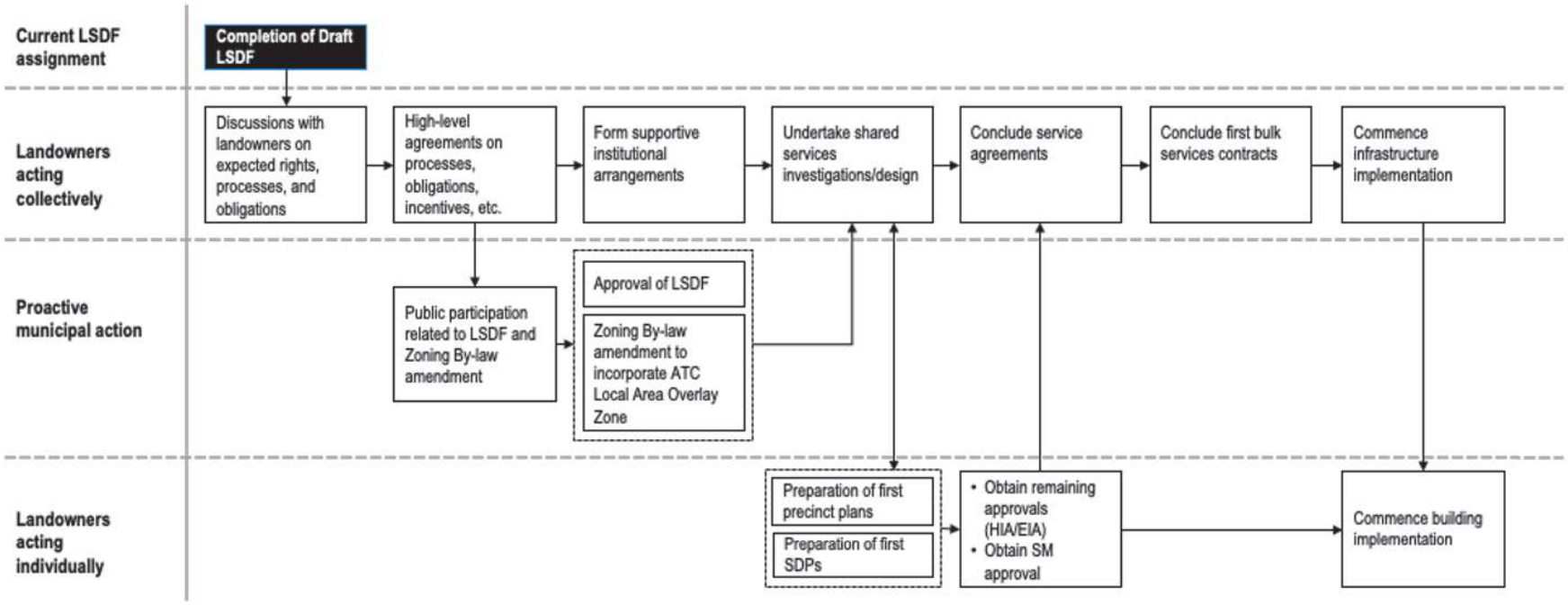


Diagram 8. High-level implementation plan

- Lead projects.
- Start-up institutional arrangements in support of the project.

- SM Council approval of the ATC LASDF, the Local Area Overlay zone, and associated processes and measures as set out above.

8.6. Essential processes distinct from but related to the LSDF

It should be clear from the work presented in the Implementation Framework that the completion of the LSDF on its own cannot secure the roll-out and implementation of the ATC. Other actions – not within the ambit of a LSDF or the present service provider appointment – are necessary. This includes:

Early discussions with the major landowners on inter alia the land use distribution and yields envisaged, phasing, anticipated landowner obligations, the manner of infrastructure funding/provision, and the proposed LUMS process. These discussions cannot only occur with landowners individually; there are shared needs for infrastructure, and other shared public obligations – including that related to housing, public facilities, and environmental remediation – which requires joint discussion and agreement.

- Early discussions on a package of incentives – over and above that implied through land use rights – available to landowners.
- The linkage or not of LSDF and LUMS approval; that is whether the LSDF and Local Area Overlay zone approval processes occur separately or together.
- Institutional arrangements in support of the SM, including arrangements for the landowners to frame responses and act to project demands collectively, project coordination and LUMS support for the SM, project related public interaction, and so on.
- A leadership agreement in support of collective public "messaging" and communication related to the project.

Also, it should be clear that it is not necessarily in the best interest of the project for different actions required for implementation of the ATC – including the LSDF – to be undertaken in a linear fashion. Considerable time towards implementation could be saved if the proposals and recommendations of the LSDF – also that related to the LUMS – are discussed with landowners as they are framed.

Part 8.
Conclusions

9. Conclusions

The ATC project has the potential to address many current and anticipated future development needs in Stellenbosch. It is a large project, potentially offering up to 4m m² in development bulk, allocated to a broad range of uses and activities typical of vibrant, mixed use urban districts. This includes 10 000 - 13 000 dwelling units in the form of apartments, for different market segments and addressing different household needs.

It can increase available livelihood opportunity in Stellenbosch for the better for many over generations to come.

Owing to the extent of the project, the anticipated lengthy development period, and the number of landowners and stakeholders involved, implementation aligned to the strategic objectives of the project will be challenging.

Through the early establishment of development rights and associated processes, it is believed that the LSDF contributes significantly to enable successful project implementation over time. Critical will be to provide for project leadership and support arrangements which can ensure ongoing coordination between landowners, extending the network of stakeholders supporting and contributing to the project, adherence to stated strategic objectives, and the fulfilment of shared obligations and programmes.

At the end those involved in further deliberations and decision-making about the ATC – spheres and institutions of government, landowners, business and institutional leadership, community organisations and citizens – should consider the alternative to supporting and implementing the ATC as presented in the LSDF; not presenting a shared vision, plan, and processes, and allowing ad-hoc development over time by individual landowners. The loss of opportunity over generations to come will be very significant.

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