

UNIVERSITY OF CAPE TOWN

INTEGRATED DEVELOPMENT FRAMEWORK (IDF) AND RELATED PRECINCT PLANS

Rondebosch Upper Campus, Rondebosch Middle and Lower Campus, Rosebank Residence Precinct, Mowbray Residence Precinct and Health Sciences Campus



REPORT SUBMITTED TO THE CITY OF CAPE TOWN FOR APPROVAL IN TERMS OF THE 'PACKAGE OF PLANS' PROCESS AND IN SUPPORT OF A NUMBER OF APPLICATIONS IN TERMS OF THE MUNICIPAL PLANNING BY-LAW, 2015, AS AMENDED, AND TO HERITAGE WESTERN CAPE FOR ENDORSEMENT, AS PART OF A HERITAGE AGREEMENT PROCESS IN TERMS OF THE NATIONAL HERITAGE RESOURCES ACT, 1999

Draft 12

May 2022



UNIVERSITY OF CAPE TOWN

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REPORT SUBMITTED TO THE CITY OF CAPE TOWN IN SUPPORT OF THE FOLLOWING APPLICATIONS IN TERMS OF THE MUNICIPAL PLANNING BY-LAW (MPBL), 2015, AS AMENDED:

(1) Approval of 'Package of Plans' comprising a Development Framework and Precinct Plans; Designation of Rondebosch Upper, Middle and Lower Campus, Rosebank Residence Precinct, Mowbray Residence Precinct and Health Sciences Campus as a Special Planning Area;
 (3) Subdivision and Consolidation and of certain erven; and
 (4) Rezoning of certain erven

THIS REPORT IS ALSO SUBMITTED TO HERITAGE WESTERN CAPE FOR ENDORSEMENT (IN SUPPORT OF A CONSERVATION FRAMEWORK, AN INVENTORY AND A HERITAGE AGREEMENT)



city planning and urban design. environmental planning and design. sustainable development

and

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in association with:

Stephen Townsend Heritage Consultant Urban Arch GIS Services Innovative Transport Solutions

Prepared for and in association with:

Campus Planning & Design, Properties & Services, UCT

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(i) Foreword to this Report

The first draft of the University's "Integrated Development Framework" (IDF) was prepared during 2013/2014 at the request of the National Department of Higher Education and Training (DHET) which required the submission of a "University Campus Master Plan" as a guide to capital expenditure in the following 5 to 20 years.

The IDF Executive Summary was approved by the University Council, having been endorsed by the University Building and Development Committee (UB&DC), and was subsequently accepted by DHET.

This report, an update and elaboration of the IDF Executive Summary, is formally submitted to the City of Cape Town for approval in terms of the 'Package of Plans Process' and in support of a number of land use applications in terms of the City's Municipal Planning By-Law (MPBL), as read with the Development Management Scheme (DMS). This approval process will also include public participation and key stakeholder engagement, as well as endorsement by other relevant authorities, including Heritage Western Cape.

In this report the IDF is presented and compiled in line with the Package of Plans Process as provided for in the DMS. It describes an overall Development Framework and growth management strategy for the University, as well as more detailed Precinct Plans for the various campuses, and recommended sectoral interventions such as student housing, sport, etc. The report has been informed by specialist studies in Transportation, Conservation and Landscape.

- Note that related strategic investments and land acquisition recommendations, as well as management and budgeting recommendations, whilst referred to in this report, do not form part of the land use or heritage applications.
- Further note that whilst included in the Conservation Framework, the Hiddingh Campus in the Central City is excluded from this IDF report and is the subject of a separate Precinct Plan.

In particular, this report is intended to create a strong degree of predictability to the future management of growth of the University, to ensure local authority endorsement of the proposals in terms of the 'Package of Plans' approach, and to streamline and simplify future approval processes. This report is submitted for approval by the City of Cape Town and Heritage Western Cape and will incorporate any further input as a result of the planned public participation process.

(ii) Source Material

There is an incredibly rich history of planning for the University. Since the first design for Upper Campus by Solomon in 1917, and for several decades following, many studies have been conducted and reports published that form an invaluable source of detailed analysis and information, strategic thinking, and sectoral investigation. The Dewar, Southworth and Louw report of 2005 and the UCT Physical Planning Unit's subsequent revisions to this work in 2010 have been important sources of reference material.

In parallel with this strategic spatial planning exercise, a multiplicity of more contemporary work has been conducted in the fields of integrated transport planning, heritage conservation, landscape frameworks, environmental sustainability, student housing, sport, as well as specific studies for precincts such as Hiddingh, and the Lower Campus. These too have informed this report. It has therefore been one of the singular challenges of the IDF to meaningfully assimilate, interpret and integrate this previous work into a comprehensive whole that seeks to link spatial planning to growth management, in a form that can be the subject of local authority approval.

(iii) Acknowledgements

The contribution of the following people in the preparation of this report is gratefully acknowledged:

- The Director: Campus Planning & Design, Properties and Services. UCT Mr Nigel M Haupt
- The Executive Director: Properties and Services, UCT Mr Mughtar Parker
- The former Executive Director: Properties and Services, UCT Mr Andre Theys
- Capital Planning, UCT Ms Maura Sanderoff and Ms Liesle van Wyk
- IDF Task Team Members appointed by the UB&DC: Ms Jane Prinsloo, Mr Peter de Tolly and Mr Derek Stuart-Findlay (with gratitude also to the late Mr Doug Roberts)
- The Previous Chairman of the UB&DC Alderman Owen Kinahan
- The past and current Members of the UB&DC
- Ebrahim Daniels CAD and GIS at BlueGreen Planning
- Dr Stephen Townsend Heritage Practitioner
- Claire Abrahamse Heritage Practitioner
- Lynne Pretorius Transport Engineer, Innovative Transport Solutions (ITS)
- Frik Vermeulen Town Planner and Heritage Practitioner, MLH Architects & Planners, who has edited the final draft of this report, and will be responsible for the management of this document and related applications through the City of Cape Town land use approval process.

Author. Derek R Chittenden. Pr. Pl. A/572/1988

(iv) Glossary/Abbreviations

CAMP	Campus Access Management Plan
CIfA	Cape Institute for Architecture
CoCT	City of Cape Town
DMS	CoCT Development Management Scheme
DHET	National Department of Higher Education and Training
FF	Floor Factor (also known as Floor Area Ratio)
GSCID	Groote Schuur Community Improvement District
GMP	Growth Management Plan
HPOZ	Heritage Protection Overlay Zone
HWC	Heritage Western Cape
IACom	HWC Impact Assessment Committee
IDF	Integrated Development Framework
IGIC	HWC Inventories, Grading and Interpretation Committee
ITT	UCT's Infrastructure Task Team
MPBL	CoCT Municipal Planning By-Law
MSDF	CoCT Municipal Spatial Development Framework
PG	Postgraduate
PGWC	Provincial Government Western Cape
P&S	UCT Properties and Services Department
PPLC	Physical Planning and Landscape Committee
RFP	Request for Proposals
SAC	Space Allocation Committee
SDF	Spatial Development Framework
SDP	Site Development Plan
TOD	Transit Oriented Development
UG	Undergraduate
UCT	University of Cape Town
UB&DC	University Building and Development Committee

EXECUTIVE SUMMARY

The University of Cape Town aspires, through its mission statement, to be a medium-sized, research intensive, residential university.

This plan is intended to assist the University in meeting its growth needs, in accordance with this mission, over the next several decades, and provides an 'integrated development framework' to guide the growth of the University from approximately 29,000 to 32,000 undergraduate and post-graduate students on campus by 2030, for which approximately 51,000m² of new academic space is required.

To meet the imperatives of student housing, at least a third of the students of the university are intended to be housed in residence, on campus, i.e. approximately 10,600 student beds, of which approximately 4,000 more beds are required.

The Development Framework (opportunities for expansion) is founded on the Conservation Framework (imperatives for protection) as its primary spatial informant, and includes the other 'sectoral' considerations such as movement frameworks, landscape frameworks, and the like.

The plan is also premised on the vision of, 'creating a liveable, pedestrian dominated, well connected, legible, green and efficient campus, where the identity and unique sense of place of the University is celebrated, and to carefully expand and develop the Campus as a place of vibrancy, safety, accessibility, residency, high quality of open space and buildings, intricacy and human scale'.

The principle of 'intensification and densification' implicit in the vision, requires better use of the university's land to create a campus 'sense of place', and the IDF has determined that the growth trajectory can easily be accommodated on the university's landholdings, with the exception of student housing, where obtaining certain Provincial Government properties is recommended.

Importantly, there is a need for 'predictability and certainty' for the University in its planning; this plan is intended, through a 'Package of Plans' process, to reduce the complexity of overlapping decision making and sequential approval processes. The purpose of the IDF is however *not* to obtain enhanced development rights; in fact, all the precincts will be significantly below the floor space permissible in terms of their applicable zoning. The aims of the IDF include the appropriate distribution of floor space within each precinct, to rectify cadastral anomalies through subdivisions and consolidations and to avoid the need for ad hoc parking departures for new developments.

Approval is sought for the following Land Use Management components of this Integrated Development Framework:

- (1) Approval of **'Package of Plans'** comprising a Development Framework and Precinct Plans i.t.o. Item 136 of the City of Cape Town's Development Management Scheme (DMS);
- (2) Designation of UCT's Rondebosch Upper, Middle and Lower Campus, Rosebank Residence Precinct, Mowbray Residence Precinct and the Health Sciences Campus in Observatory as a Special Planning Area (SPA) i.t.o. Item 136 of the DMS;
- (3) Rezoning of certain erven i.t.o. Section 42(a) of the MPBL;
- (4) **Exemption** for certain subdivisions and consolidations i.t.o. Section 42(s) of the MPBL, as contemplated in Section 67(1) of the MPBL;
- (5) Subdivision of certain erven i.t.o. Section 42(d) of the MPBL and
- (6) Consolidation of certain erven i.t.o. Section 42(f) of the MPBL.



Map indicating the proposed Special Planning Area (SPA) of \pm 97ha and the five precincts within it.

In parallel, the endorsement / approval of Heritage Western Cape is sought for:

- (1) a Conservation Framework for the built environment of UCT;
- (2) a **Heritage Inventory** (grading of buildings and sites) i.t.o. Section 30 of the National Heritage Resources Act (NHRA) and
- (3) a **Heritage Agreement** i.t.o. Section 42 of the NHRA, to be concluded between the University of Cape Town and Heritage Western Cape.

An integrated public consultation process will be undertaken for the land use and heritage applications.

The Development Framework identifies overall policy, broad goals, and principles for development, as specified in Item 136 of the DMS. While reference is made to potential initiatives beyond UCT's landholdings, this land use application, including the Special Planning Area (SPA) and Development Framework, is confined to UCT's landholdings within the proposed SPA (Main Campus).

The precinct plans and floor area table show the conceptual infill proposals within the five precincts in the Special Plannning Area. All development in each precinct is *well* below the total permissible floor area of applicable zoning of its land parcels. The potential academic floor space identified in the Rondebosch Upper, Middle and Lower Campus is approximately 56,130m², with a further 16,000m² of academic floor space on the Health Sciences Campus – **72,130m²** in total. In addition, **48,000m²** of residential floor space (± 1,250 additional student beds) is proposed in the Rosebank and Mowbray Residence Precincts, over and above the 500 bed Phase 1 Avenue Road Residence, which was completed in November 2020.

In due course, detailed Precinct Plans and/or Site Development Plans will confirm the built form and actual floor space per development parcel.

<u>Note</u>: The portion of Erf 27431 to the north of Anzio Road, which accommodates the Groote Schuur Hospital ± 16, 8ha in extent, is excluded from the proposed Special Planning Area and the five planning precincts.

Existing and Proposed Floor Areas per Precinct

Rondebosch Upper Campus

•	Precinct extent	38,9980 ha zoned CO2
		2,1438 ha zoned OS2
		Total: 41,1418 ha
•	Permissible floor space	CO2 portion (FF 2.0): 779,980 m ²
		OS2 portion (FF 0.0): 0m ²
		Total: 779,980 m²
•	Existing assignable floor area	approx. 216,100 m²
•	Existing floor space	approx. 237,700 m²
٠	Current floor factor	0.60
•	Proposed floor space	approx. 22,350 m²
٠	Total floor space	260,050 m²
•	Proposed floor factor	0.66
•	Remaining floor space	519,930 m²

Rondebosch Middle and Lower Campus

•	Precinct extent	0,3767 ha zoned CO1 20,3245 ha zoned CO2
		Total: 20,7012 ha
•	Permissible floor space	CO1 portion (FF 0.8): 3,014 m ²
		CO2 portion (FF 2.0): 406,490 m ²
		Total: 409,504 m²
٠	Existing assignable floor area	approx. 56,682 m²
٠	Existing floor space	approx. 62,350 m ²
٠	Current floor factor	0.30
٠	Proposed floor space	approx. 33,780 m ²
٠	Total floor space	96,130 m²
•	Proposed floor factor	0.46
•	Remaining floor space	313,374 m²

Rosebank Residence Precinct

	Precinct extent	11,4159 ha zoned CO2	
		0,1125 ha zoned GR4	
		Total: 11,5284 ha	
•	 Permissible floor space 	CO2 portion (FF 2.0): 228,318 m ²	
		GR4 portion (FF 1.5): 1,687 m ²	
		Total: 230,005 m ²	
•	 Existing assignable floor area 	approx. 36,233 m ²	
•	 Existing floor space 	39,856 m²	
•	Current floor factor	0.35	
•	 Proposed floor space 	approx. 7,500 m ²	
•	 Total floor space 	47,356 m²	
•	 Proposed floor factor 	0.41	
•	 Remaining floor space 	182,649 m²	
* I	Mowbray Residence Precinct		
•	Precinct extent	7,0984 ha zoned CO2	
		3,7607 ha zoned GR4 and GB1	
		0,3235 ha zoned SR1	
		Total: 11,1826 ha	
•	 Permissible floor space 	CO2 portion (FF 2.0): 141,968 m ²	
		GR4 and GB1 portion (FF 1.5): 63,932 m ²	
		SR1 portion (FF 1.0): 3,235 m ²	
		Total: 209,135 m ²	
•	 Existing assignable floor area 	approx. 51,378 m ²	
•	 Existing floor space 	approx. 56,516 m ² *	
•	 Current floor factor 	0.50	
•	 Proposed floor space 	approx 40 582m ²	
•	 Total floor space 	97,098 m²	
•	Proposed floor factor:	0.86	
•	 Remaining floor space 	112,037 m ²	
	Health Sciences Campus		

Health Sciences Campus

•	Precinct extent	4,6278 ha
•	Permissible floor space (FF 2.0)	92,556 m²
•	Existing assignable area	approx. 53,038 m²
•	Existing floor space	approx. 58 340 m ²
•	Current floor factor	1.26
•	Proposed floor space	approx. 16,000 m ²
•	Total floor space	74,340 m²
•	Proposed floor factor	1.60
٠	Remaining floor space	18,216 m²

* Including the recently-completed Avenue Road Residence Phase 1

1. INTRODUCTION

1.1 Context

The University of Cape Town was first established in 1829 as the South African College in what had been the Menagerie, a part of the Dutch East India Company's Gardens. During the next century it expanded to fill the precinct now known as the Hiddingh Campus. However, in the 1920's the Upper Campus was developed on Rhodes' Estate (Groote Schuur) just above the suburb of Rondebosch and since then, the University has expanded to occupy large parts of Rondebosch, Rosebank, Mowbray and Observatory and, in 1992, to leased land in the V&A Waterfront (Breakwater Campus). The University currently comprises a community of 34,200 people (29,272 students and 4,928 staff) on all its campuses, including the Hiddingh and Breakwater Campuses.

The University's Main Campus occupies an iconic location, perhaps one of the most dramatic university settings in the world, on the edge of the Table Mountain National Park. UCT features in the City's IDP and is a key part of the City of Cape Town's vision to be a word class city.

The University has a profound impact on the local economy due to its size, spread, and large numbers of students and staff.



The University's Rondebosch Upper and Middle Campus viewed from the north-east

1.2 The Brief – Objectives of this Report

The formulation of this report has been done in accordance with a number of 'pre-application' meetings with the City of Cape Town. The Objectives of this document are as follows:

- To ensure that the UCT Development Framework and its relevant Precinct Level Plans, follow due legislative process and achieve formal status in terms of the City's Development Management Scheme. The mechanism of a Special Planning Area and the "Package of Plans" system will be used in this process. (Refer to Annexure B)
- 2. Certain rezonings to the current base zones are anticipated where these base zones are not consistent with the University use of the property concerned. These are to be formally approved as part of this land use process.
- 3. Subdivisions and consolidations are required to be formally approved to regularise the very complex underlying situation of multiple erven, zonings, and large swathes of UCT property being covered by metropolitan road networks.
- 4. The need to designate appropriate and reasonable parking requirements that give recognition to the university's Jammie Shuttle initiative, that reflect the situation on campus and avoid / reduce ad hoc parking departures for each new development and extension that is not accompanied by additional off-street parking.
- 5. The approval of the IDF is intended to create greater levels of certainty and predictability for the University and will provide the framework for the future development on the various Campuses and Precincts. All future development in accordance with such approved frameworks, (Development Framework and Precinct Plans) will allow the streamlining of future approval processes at Site Development Plan (SDP) level.
- 6. To ensure alignment of process and procedure with the NHRA and to ensure HWC's endorsement of the Development Framework, and Precinct Plans, as an adjunct to the proposed Heritage Agreement, encompassing the Conservation Framework, Inventory and recommended gradings.
- 7. It was noted that the agreed Contextual Frameworks in regard to the Package of Plans Process would be the relevant District Plans:
 - In respect of the Health Sciences Campus, the Table Bay District Plan applies
 - In respect of Mowbray, Rosebank and Rondebosch, the Southern District Plan applies.
- 8. It was also agreed with the City land-use officials that even though the study area falls within two City districts the Table Bay District and the Southern District the IDF will be processed as *one* land use application, with *one* designated Case Offficer.

1.3 Study Area

Figures 1 and 2 indicate the significant extent of the UCT landholdings in the Rondebosch, Rosebank, Mowbray and Observatory area and clearly illustrate the University's dramatic juxtaposition with the Table Mountain National Park to the west, and the urban fabric of the city around the Main Road corridor to the east. To the south is the large area dedicated to ministerial housing on the lower Groote Schuur Estate.



Figure 1. Context of the University – various precincts embedded between the slopes of Table **Mountain and the urban fabric of Rondebosch, Rosebank, Mowbray and Observatory.** Refer to Figure 2 overleaf for a naming of the precincts.

1.4 The Precincts /Campuses

Figure 2 indicates the agreed UB&DC delineation of the Precincts of 'Main Campus', namely:

- 1 Rondebosch Upper Campus
- 2 Rondebosch Middle and Lower Campus
- 3 Rosebank Residence Precinct
- 4 Mowbray Residence Precinct
- 5 Health Sciences Campus

Notes :

- The above Campuses and Precincts constitute 'Main Campus' (sometimes previously referred to as Rondebosch Observatory Campus, as distinct from Hiddingh Campus in Gardens and the Graduate School of Business on the Breakwater Campus in the V&A Waterfront).
- For clarity, areas of academic learning are referred to as Campuses, all other areas are referred to as Precincts.
- Other University landholdings (primarily off campus student residences) are indicated in black outline below, but do not form part of the Main Campus.
- Hartleyvale Sports Precinct and Rhodes Recreation Ground form part of the Sports Framework, but are not included in the proposed Special Planning Area or the Package of Plans submission, as these sites do not fall within UCT's landholdings.



Figure 2. Campuses and Precincts of 'Main-Campus'.

1.5 Properties Included and Conditions of Title

The study area includes 30 properties, approximately 96,8ha in total extent and all owned by the University of Cape Town. These properties are listed and described in **Annexure C**.

Rondebosch Upper Campus consists of a portion of Erf 44201¹, Erven 44278, 30332 and 30349 Cape Town; Rondebosch Middle and Lower Campus consist of of a portion of Erf 44201, Erven 46041, 46339, 47242, 108992, 44217² and 103239³ Cape Town; Rosebank Residence Precinct consists of Erven 32100, 30803, 30804 and 44230 Cape Town; Mowbray Residence Precinct consists of Erven 176381, 28366, 28543, 28503, 28495, 28445, 28368, 28367, 28369, 30334, 30306 and 30295 Cape Town and the Health Sciences Campus consists of Erven 28365, 166381, 27431⁴ and 27432 Cape Town.

A deed search has been undertaken by Fairbridges Wertheim Becker Attorneys and conveyancer's certificates have been prepared for all the properties ⁵. Digital copies of the title deeds and conveyancer's certificates will be uploaded to the case file as part of the LUM submission.

The deed search found a number of restrictions, servitudes and special requirements, including conditions in terms of the Rhodes Will. The applicable conditions are set out in **Annexure D** of this report. There are however <u>no</u> title conditions that prohibit the development of the subject properties in accordance with the high-level development proposals contained in this IDF report.

1.6 Exclusions – Extended University Landholdings

The University also owns or leases several properties throughout the Western Cape that are *not* the subject of this report. These discrete landholdings will be dealt with by means of separate 'Precinct Plans'. Some of the key satellite parts of the University include:

- Hiddingh Campus in the Cape Town City Centre (refer to separate Precinct Plan, dated 2013)
- The Breakwater Campus (Graduate School of Business) in the V&A Waterfront
- The Groote Schuur Hospital (as distinct from the Health Sciences Campus)
- The Red Cross Children's Hospital in Rondebosch
- The Protea Hotel at Valkenburg, Observatory
- Rondebosch Cottage Hospital
- Montebello Design Centre, Newlands
- Sports Science Institute of SA, Newlands
- UCT Rowing Club, Zeekoevlei
- Bains Kloof Field Station (Botany Department)
- Laingsburg Field Station (Geology Department)

¹ Erf 44201 has two portions – one on each side of Erf 44278 (Erven 44201-0-1 and 44201-0-2). Furthermore, one portion of Erf 44201-0-2 is located on Upper Campus and one portion on Middle Campus.

² Erf 44217 has two portions – one on each side of Woolsack Drive (Erven 44217-0-2 and 44217-0-1)

 $^{^{\}rm 3}$ Erf 103239 has two portions – one on each side of Woolsack Drive

⁴ Erf 27431 has two portions – one accommodates the UCT Anatomy Building (Erf 27431-0-1) and the other forms part of the Groote Schuur Hospital (Erf 27431-0-2). The portion of Erf 27431 to the north of Anzio Road, which accommodates the Groote Schuur Hospital and is \pm 16,8 ha in extent, is **excluded** from the study area.

⁵ While there are 30 properties, there are 29 conveyancers's certificates, as Erven 44201 and 46041 are held in terms of the same Deed of Grant.

2. INSTITUTIONAL, POLICY AND LEGISLATIVE CONTEXT

A. Institutional Context - Mission, Vision and Strategic Goals of the University

"The fundamental goal of the university system is to create the conditions that will enable dependent adolescents to become wise adults – men and women of dignity and honour – who will be the country's future leaders, whose discoveries and innovations will be the source of national prosperity in the coming centuries, and whose personal ethics will be the standards both of government and of corporate South Africa".⁶

2.1 Key Informants

Key documents that inform the Mission of the University, the 'Vision' of the Integrated Development Framework, and the Strategic Goals elaborated below include:

- The Talloires Declaration (1990)
- The Green Campus Policy Framework (2008)
- The 'Size and Shape ' Report (2011)
- The ISCN/GULF Sustainable Campus Charter (2012) **

Principles embodied in the Sustainable Campus Charter (signed by the Vice Chancellor in May 2012) include:

- 1. Demonstrate respect for nature and society; sustainability integral to planning, construction, renovation and operations.
- 2. Ensure long term sustainable campus development, **campus wide master planning** and target setting to include environmental and social goals
- 3. Align core mission with sustainable development, facilities, research, and education to link to 'living laboratory' for sustainability

2.2 Vision and Mission

The VISION of the university is "to be an inclusive and engaged, research intensive African university that inspires creativity through outstanding achievements in learning, discovery and citizenship; enhancing the lives of its students and staff, advancing a more equitable and sustainable social order and influencing the global higher education landscape."

It is UCT's MISSION to be an outstanding teaching and research university, engaging with the issues of our social and natural world. It is central to the University's mission to advance scholarship in Africa through building partnerships across the continent and the rest of the world; provide a vibrant and supportive intellectual environment, attracting people from across the world; produce graduates and future leaders influential locally and globally; be underpinned by values of engaged citizenship and social justice, producing graduates having a positive impact on society and the environment; actively advance transformation, and nurture an inclusive institutional culture which embraces diversity.

⁶ Adapted from: Lewis, H.R., Excellence without a Soul: How a Great University Forgot Education (New York: Public Affairs Books, 2006) - from Report from the Ministerial Committee on the Review of the Provision of Student Housing at SA Universities, Sept 2011

2.3 Vision of the Development Framework

A Vision Statement is a normative planning tool that informs the intent of the Development Framework and is derived from the Vision and Mission of the University elaborated above. The **Overarching Vision of the University,** can be described as follows:

UCT aspires to become the premier academic meeting point between South Africa, the rest of Africa and the world; and to be a medium sized, research intensive, residential university.

This overall vision is supplemented by the following **Vision for Main Campus**, derived and workshopped with key stakeholders in the preparation of this report, and which informs the Integrated Development Framework:

To create a liveable, pedestrian dominated, well connected, legible, green and efficient campus; where the identity and unique sense of place of the University is celebrated, and to carefully expand and develop the Campus as a place of vibrancy, safety, accessibility, residency, high quality of open space and buildings, intricacy and human scale.

2.4 Strategic Goals – 'Size and Shape'

The *Size and Shape* report accepted by UCT Council in December 2011, contained a number of strategic recommendations, notably that UCT, as indicated in the Mission Statement above, remains a **'medium size' institution**, and **should strive to house a third of its students in university residences.**

The report was based on the notion (unsubstantiated by detailed physical or spatial investigation) that UCT has limited physical capacity for growth, and recommended that enrolments be capped at just over 28 000 by 2020. It was noted at the time that, "a satellite campus would be required to accommodate the university's physical and infrastructural needs for 35 000 students if it were to continue its recent annual growth pattern of approximately 3.5%". However, the findings of this IDF report are that there is indeed sufficient capacity for significant infill development within the various Precincts, and that growth in student numbers to the projected target of 32,000 students is feasible within the existing university landholdings.

The Integrated Development Framework accordingly explores options for an expansion to **32,000** students on Campus by 2030 through more efficient use of land and other resources, including a 'densification and intensification' (infill) strategy for the Upper, Middle and Lower Campuses, and the longer term acquisition of properties in the 'corridor' between UCT's Rondebosch/Rosebank Campuses and the Health Sciences Campus. The IDF assumes a goal of concurrent expansion of student housing, aligned with the original *Size and Shape* proposal, of providing accommodation for at least a third of its students – i.e. at least **10,600** students.

2.5 **Giving Substance to the Mission Statement**

It is emphasised that the Mission, Vision and the Strategic Goals set out above need to be translated into concrete action and implementation programmes through the integrated work of the various committees responsible, including, inter alia, the University Finance Committee (UFC) and the University Building and Development Committee (UB&DC).

The UB&DC is tasked to facilitate the process of developing a physical plan, guided and prepared by Capital Planning within the UCT Department of Properties and Services, in line with the academic growth model and objectives. The UFC should develop a financial model consistent with the vision, which ensures financial viability of the plan and the integration of the physical plan with the future short, medium and long term expenditure requirements. In particular, it is critical to ensure that the management and human resource capacity exists to translate the vision and goals into action, and that sufficient financial resources are made available for this purpose.

B. Policy Context

2.6 Growth Management and an Integrated Spatial Development Framework

Whilst this report is concerned primarily with the spatial dimension of planning, it is emphasised that this only occurs in a broader context of management planning.

The diagram below indicates the need to link spatial planning with a robust management framework. The focus of planning to date on the University has been primarily on the spatial dimension (the 'where'), but it is imperative to address the 'how' and the 'what' of future development to give effect to the spatial framework. Therefore the Growth Management approach is concerned with budgeting for implementation, but equally should address administrative and institutional decision-making.



- Related to Vision, Mission. Goals
- WHERE growth (development) and conservation is to occur

- component of broader Growth
- Location, timing, and character
- Governance and Administration
- HOW decisions are made
- WHAT type of development is undertaken

Figure 3. Integrating Spatial and Management Frameworks

Other key elements of the growth management approach are firstly, that the plan is agreed to and endorsed through an inclusive participatory process, secondly that it is focussed on implementation and action, and for this reason, is reliant on sound financial planning and budgeting.

2.7 An Integrated Set of Framework Plans

The diagram below illustrates how the overall integrated development framework is described and 'unpacked' by means of a series of 'framework plans' that deal with the host of sectoral concerns, both spatial and a-spatial in nature. It builds on and attempts to integrate a large body of related work in the field of transport planning, conservation strategy, landscape planning, and the like.



Figure 4. An Integrated Series of Framework Plans leading to the Composite Development Framework

2.8 Guiding Framework – a 'Package of Plans Approach'

The guiding framework for the recommendations in this report is the Package of Plans, as described in the City's DMS – part of the MPBL, and summarised in the diagram below.



Figure 5. Diagram indicating Package of Plans Framework

Item 136 of the DMS describes the general purpose of a package of plans, which is" *to provide for a mechanism to* **plan and manage the development of large or strategic urban development areas**. It is a phased process of negotiation, planning and approvals, whereby increasing levels of planning detail are approved together with conditions for such approvals. Areas where the package of plans approach is used will be generally referred to as Special Planning Areas (SPA), and must be recorded in Annexure B".

Figure 6 below indicates the extent of the proposed UCT Special Planning Area. **Annexure C** to this report contains the full schedule of properties.

The detailed requirements of each level in the Package of Plans are contained in Annexure B.

2.9 The City's Policy Framework

It is not the intent of this report to elaborate in any detail on the policy framework of the City, other than to note the following policy documents that will have a bearing on the Integrated Development Framework, the adjudication of which must ensure consistency with these policy frameworks:

- The City's Integrated Development Plan (IDP)
- The City's Economic Growth Strategy
- The Municipal Spatial Development Framework (MSDF)
- The Urban Design Policy
- The Transit Oriented Development (TOD) Strategic Framework
- The Densification Policy
- The applicable District Plans (the Table Bay and Southern District Plans)

Along with the MSDF, the two applicable District Plans are considered to comprise the spatial and policy component of the **"Contextual Framework"** as per the Package of Plans Process.

• Municipal Spatial Development Framework (MSDF)

The latest version of the MSDF has been approved by the City of Cape Town in terms of the Municipal Systems Act in April 2018. Fundamental to the MSDF is ensuring spatial transformation via *dense* and *transit-oriented* growth and development anchored by an efficient transport system.

While the 2012 MSDF projected long-term growth along two northern corridors, the 2018 MSDF, proposes targeted investment and land use management based on *inward growth*. The MSDF motivates for land use intensification based on transit-oriented development (TOD). This implies a greater mix of residential and non-residential land use (diversification) through the increased use of space, both vertically and horizontally (densification).

This is to be achieved within existing areas or properties and new developments with an increased number of dwelling units and should be encouraged in locations with good public transport access, concentrations of employment, commercial development and other amenities.

The desired urban form for the city is to be achieved through a number of policy statements, including the following:

Policy 1: "Support the intensification and diversification of land use in areas supportive of transitoriented development" This means that the City will "support a mix of land uses and higherdensity residential development in appropriate locations in support of TOD"

This is achieved through the medium-density infill development proposed on the UCT campus - a location that is highly accessible to / within walking range of *all* modes of public transport.

Policy 12: "Identify, conserve and manage heritage resources, including cultural landscapes"

The IDF and Precinct Plan proposals are premised on the heritage informants contained in the UCT Conservation Framework and Inventory and are sensitive to the heritage significance of the buildings, squares and cultural landscapes that make up campus.

Policy 14: "Create an enabling environment for urban regeneration that allows buildings and sites of historical and architectural significance to make a positive contribution to the economy and quality of urban life"

- Policy Guideline P14.1 states: "Encourage investment in the adaptive reuse of historical sites, facilitate integration between the conservation and adaptive reuse of heritage buildings, and promote urban regeneration strategies."
- Policy Guideline P14.2 adds: "Discourage the demolition or inappropriate alteration of historical sites where there is a possibility that these can be retained and integrated into a new development without undermining the viability or inclusive potential of the development."

The proposed development proposals contribute to student life and optimisation of land, while conserving buildings and sites of historical and architectural significance. No demolitions or inappropriate alterations of historical buildings or sites are proposed.

Policy 19: "Promote appropriate land use intensity."

• The MSDF states that "the City will support land use intensification in all areas of the city, but differentiated by context: Higher levels of intensification (densification and diversification) will be encouraged within the Urban Inner Core."

The majority of the study area falls within the Urban Inner Core and the various proposals are characterised by densification and diversification.

Policy 39: "Reinforce and enhance metropolitan development corridors anchored by the Integrated Public Transport Network (IPTN). The City will support the development of metropolitan development corridors by:

- o investigating land use, procedural and financial incentives;
- unlocking the development potential of vacant and partially developed land through proactive rezoning and / or instituting processes required to remove restrictive conditions of title"

The redevelopment and infill proposals will unlock the development potential of vacant and partially developed land. The Health Sciences Campus, Mowbray Residence Precinct, Rosebank Residence

Precinct and the Lower and Middle Campus fall in a mature development corridor. The proposals will reinforce and enhance this metropolitan development corridor, while also supporting public transport.

Policy 40: "Encourage medium-density and higher-density forms of urban development to locate on or adjacent to bus, rail or intermodal stations, as well as along development corridors and in urban nodes".

The various components of campus are strategically located in relation to public transport and the the Jammie Shuttle supports the metropolitan public transport network.

The basis for growth management in the city is through four primary 'Spatial Transformation Areas':

- o An Urban Inner Core
- o Incremental Growth and Consolidation Areas
- Discouraged Growth Areas
- Critical Natural Assets

UCT's Health Sciences Campus, its Mowbray Precint, and its Lower and Middle Campus falls within the '**Urban Inner Core**' where the MSDF supports "*the prioritisation of public investment and incentivised private sector investment in support of growth areas in the Urban Inner Core*". In addition to the Urban Inner Core designation, shown in blue on Figure 6 below, the area along southern suburbs Main Road to Muizenberg is designated as a '**Structuring Corridor**', shown in a black cross-hatch on Figure 6. Coridors are broadly defined as "*urban areas of high-intensity* (*i.e. dense and diverse*) *nodal or 'strip' development focussed around (a combination of) rail, highcapacity road and trunk bus routes. They are characterised by a dynamic, mutually supporting relationship between land use and the movement system.*"



Figure 6. Extract from the MSDF Consolidated Spatial Plan Concept (Source: City of Cape Town)

Most of Upper Campus falls within a '**Consolidation Area**', where the City is "committed to servicing existing communities and where new development will be subject to infrastructure capacity." Here the MSDF advocates "optimisation of existing zoning categories as per the City's Development Management Scheme (DMS) with a focus on intensified land uses in existing economic nodes."

Erf 30332, located in the north-western corner of Upper Campus and accommodates a reservoir and lawn, falls within '**Critical Natural Assets**' which by definition are "*areas that contribute significantly to the City's future resilience and/or have protection status in law. They include a number of protected natural environments and conservation areas outside the urban inner core or incremental growth areas." The site does in fact not play any significant ecological role, has no biodiversity value and has no current or potential protection status. On the lower portion of Erf 30332 a bus terminus is proposed and due to the property's Open Space (OS2) zoning, a rezoning of the lower portion to Community Zone (CO2) was required. Also, due the the property's Critical Natural Assets designation, the City's Spatial Planning Department has advised that application for a deviation from the MSDF was required. This rezoning was the subject of a <i>separate* land use application (Case ID 70504849), which was approved by the MPT in April 2021, including the deviation from the MSDF, based on site-specific circumstances.

The proposed intensification of development within the Urban Inner Core and Consolidation Area, as proposed in the UCT IDF, is in full compliance with the objectives of the Cape Town MSDF.

• District Plans

The City's eight District Plans are medium term (10 year) plans that aim to guide spatial development processes and land use management within the district and are approved by the Council of City of Cape Town as policy in 2012. A process for updating the District Plans has recently commenced.

The Health Sciences Campus falls within the **Table Bay District Plan** and the balance of the study area, including Mowbray, Rosebank and Rondebosch, falls within the **Southern District Plan**.

Spatial planning categories relevant to the UCT study area include:

- 'Mixed Use Intensification' all business areas associated with identified urban nodes and business strip areas, including Main Road where densification is encouraged. Mowbray CBD and Rondebosch CBD are Regional and District nodes respectively where mixed-use intensification of development is advocated
- 'Urban Development' standard urban areas to be considered for a wide variety of urban uses such as housing development, public open spaces, community facilities, mixed use / business development.
- The Health Sciences Campus, Mowbray, Rosebank and Upper, Middle and Lower Campus are indicated as 'Open Space' campus and sports grounds at UCT where development should not compromise open space linkages; This is a curious designation, as a mature, densely developed university campus should not be be designated as 'Open Space', but as 'Urban Development', which includes community facilities.

• In 'Buffer 2' areas "low impact activities may be appropriate.Where possible, all new utility infrastructure, services and structures should be located outside of these areas". It states that "low impact activities may be appropriate" and that "essential utility service infrastructure, cemeteries outside the urban edge, and areas zoned public open space may be accommodated in Buffer 2 areas". However, the report also states that "where possible, all new utility infrastructure, services and structures should be located outside of these areas".



Figure 7. Extract from the Spatial Development Plan for the Table Bay District, updated May 2014 (Source: City of Cape Town)



Figure 8. Extract from the Spatial Development Plan for the Southern District, updated May 2014 (Source: City of Cape Town)

The site on Upper Campus where the North Stop bus terminus is proposed (consisting of Erf 30332 and Erf 30349), is shown as '**Buffer 2**' (see Figure 8 above). It is also located **outside the Urban Edge**. A deviation from the Southern District Plan was therefore required. As mentioned above, the rezoning of Erf 30332 was the subject of a *separate* land use application, which was approved by the MPT in April 2021, including the deviation from the Southern District Plan, based on site-specific circumstances.

<u>C. Legislative Framework</u>

As mentioned above, the primary legal framework at Municipal level is the **City of Cape Town Municipal Planning By-Law (MPBL - 2015, as amended).**

The requirements of the By-Law in terms of development approvals, zonings, subdivisions and consolidations, as well as Special Planning Area approvals in terms of the Package of Plans system are the particular focus of this report. The boundaries of the proposed Special Planning Area (SPA) is indicated on Figure 9 overleaf.

Other legal instruments of a planning nature include: The Spatial Planning and Land Use Management Act (SPLUMA) No.16 of 2013, the Western Cape Land Use Planning Act (LUPA) No.3 of 2014, as well as the Regulations promulgated in terms of both of these Acts.

The legal framework is further comprised of a raft of legislation that will have a bearing on the approval of the recommendations of this report. Of particular importance will be the integration of approvals with other legislative mandates including heritage legislation enshrined in the **National Heritage Resources Act (NHRA) No.25 of 1999** administered by Heritage Western Cape (HWC). (*Refer to the Conservation Framework described later in this report*).

3. GUIDING PRINCIPLES

Under the Vision Statement, namely "to create a liveable, pedestrian dominated, well connected, legible, green and efficient campus, where the identity and unique sense of place of the University is celebrated, and to expand and develop the Campus as a place of vibrancy, safety, accessibility, residency, high quality of open space and buildings, intricacy and human scale", the following key guiding principles (or 'performance criteria') are summarised below in point form. All strategic recommendations need to be framed by and tested within the overall Vision, and against these guiding principles.

1. Equity/Access

- To ensure equitable access to all of the opportunities and activities of the University and that no one should be disadvantaged by its operation.
- To place emphasis on walking as a primary mode of movement, supplemented by efficient bicycle and public transport networks.
- To create dedicated and safe corridors for walking and the creation of a quality pedestrian environment across campus.
- To ensure universal access.
- To ensure convenient academic staff and visitor access to well-located parking.
- To implement parking controls and to relocate parking where it derogates from the pedestrian experience.

2. Integration

- To promote integration within the University and all its various components and precincts.
- To promote improved integration between the University and the City/surrounding community.
- To develop 'public space' as a key structuring element for social and cultural integration.
- To promote controlled public access and sharing of facilities
- To integrate movement systems and linkages to the City's public transport system.

3. Intensification

- To ensure efficient use of land and resources through the renovation, infill and development of existing university property prior to the acquisition of new land.
- To embrace densification and compactness.
- To ensure a residency based campus where a third of students are housed in residence
- To recognise that intensification improves pedestrian accessibility and public transport viability.

4. Sustainability

- To promote an approach to planning where social, ecological and economic goals are met.
- To protect and enhance green corridors, and to conserve worthy spaces and buildings.
- To promote energy efficiency and waste management.
- To design adaptability and flexibility into the plan so that it is able to respond to growth and change.
- To promote mixed use development and to encourage the multiple use of space where appropriate.
- To rely on the surrounding urban system attributes ensuring the non-duplication of amenities and services.

5. Heritage and Conservation

• To respect, and conserve those elements of cultural significance on Campus, including architectural, landscape, cultural and natural assets.

6. Safety and Security

- To promote a permeable and legible public space system with "eyes on the street".
- To ensure that precincts and buildings are safe and that public or exposed routes are continuously under surveillance.
- To ensure the safe transition of space from the public to the private and to design appropriate 'gateways' to signal University space.
- To continue to support the Groote Schuur Community Improvement District (GSCID) partnership.
- To safequard campus from the threat posed by veldfires in the Table Mountain National Park and to prevent the spreading of fires within campus.

7. Flexibility

- To provide for adaptability in the plan to respond to change (financial, physical, student numbers)
- To design for phased and incremental growth.

8. Landscape, Place-Making and Legibility

- To provide human scaled, well defined and enclosed public spaces.
- To ensure aesthetically pleasing and coherent systems of places, linkages and landscape networks.



4. THE INTEGRATED DEVELOPMENT FRAMEWORK (IDF) SUMMARY

This section summarises the key structuring elements of the overall integrated development framework before elaborating the key 'sectoral' recommendations in the following Sections of this report, in particular the Institutional Framework in Section 5, the Conservation Framework in Section 6, whereafter the Development Framework and Precinct Plan level spatial recommendations are further elaborated in Section 7 and 8. The following sections of the report deal with the Landscape Framework, the Transportation Framework, the Student Housing Framework and the Sports Framework.



4.1 Contextual and Conceptual Framework

Figure 10a. 'Contextual' Framework. The Setting of Main Campus.

The context of the University illustrates the notion of "Town and Gown", characteristic of many great institutions "embedded" within their city fabric. UCT is unique in its fine grained urban and stunning natural context, juxtaposed between the city and the mountain. Fine buildings in an arcadian setting, remnant stream courses, and historical walkways are still visible, with the various campuses set within a green web of sports facilities, and historic avenues of trees.

The disparate nature of the various academic campuses and residential precincts, separated by the main road network of the southern suburbs is apparent, as is the challenge to ensure a respectful 'fit' of the university within its residential context. A powerful aspect of the context of the university is its proximity to the southern suburbs rail network, and the Main Road activity spine.



Figure 10b. 'Conceptual' Framework. Main structuring elements of the integrated conservation and development framework.

Series of discrete and legible precincts: academic, residence, sports, and open space

- Primary pedestrian and cycle routes the east west boulevards, the historical avenues and the pedestrianisation of University Avenue
- Pedestrian dominated, well landscaped connectors and cycle ways
- Important public spaces at 'knuckles' in the connection framework
- Important crossing points over or under main road networks
- New Jammie Shuttle stops
- Sensitive, appropriate, well located infill development

The Conceptual Framework illustrated above in spatial terms, is expressed and further described as 'Objectives' below.

4.2 Objectives

The Development Framework, premised on the Conceptual Framework (Figure 10b), is based on the following key 'structuring elements' expressed as a series of **Objectives**:

- To create a "liveable, pedestrian dominated, connected, safe and green campus"; linked by a system of pedestrian boulevards and intersecting public spaces;
- To effect **appropriate and sensitive infill development** in zones outside of identified heritage curtilages in order to meet the projected growth trajectory;
- To create a well-defined **pedestrian**, cycle and accessibility 'web' that links the various precincts, recognising the challenges of the east-west gradients, and the opportunity of north-south 'boulevard' connections;
- To create 'legible' precincts comprising academia, residence, administration and sports, within an overarching landscape framework, that preserves and enhances the 'arcadian' elements of the campus ⁷;
- To identify opportunities for **student accommodation** as an necessary priority;
- **To overcome the 'barriers'** to connectivity presented by the freeway and other main road networks;
- **To integrate the campus** into the surrounding fabric of the city, whilst also protecting its unique identity, and maximising the connections to the city's public transit network.



The University embedded into the fabric of Rondebosch, Rosebank, Mowbray and Observatory

⁷ Subject to adherence to veldfire related guidelines, particularly at the urban / natural interface.

4.3 Description of the Key Elements of the Spatial Framework

The key components of the Development Framework , illustrated in Figure 11, can be broadly described as follows:

- 1. The plan is structured around and attempts to **fit within and into the surrounding urban fabric** including the metropolitan and local road and rail network. Some of these elements act as barriers to movement, and some as key connectors.
 - a. The Main Road corridor (including the suburban rail line) is a key connecting element and contains not only the metropolitan public transport systems, but many of the commercial activities that support university life. Main Road is also the 'activity spine' that forms a focus for the location of many residential opportunities.
 - b. Rhodes Drive (M3), Woolsack Drive, the N2 and to a lesser extent, Rhodes Avenue form barriers to efficient pedestrian movement and safe connectivity between the Campuses, and the extension of key linkages over (or under) this system are shown on the IDF.
- 2. Fundamental "seams" in the plan are the **landscaped pedestrian and cycle ways**, comprising the 'north-south' and 'east-west' connector pedestrian boulevards and streets.
 - a. The 'north-south' boulevard links run generally with the contour and are a key part of the system to achieve a pedestrian friendly and accessible campus, given its dispersed nature.
 - b. The 'east-west' connectors generally run 'up-contour' from the rail stations and the Main Road spine to connect to the 'north-south' boulevards. (Japonica Walk, image below, being a key component of this system)
 - c. The intersections of the north-south and east-west connectors are identified as important places for the creation of 'public squares' to celebrate 'gateways' in the movement system.



- 3. A further key element is the creation of a **pedestrian-dominated University Avenue** with associated improved public squares and spaces.
 - a. This involves the relocation of car parking, and the construction of structured parking areas elsewhere on Campus.


Images. University Avenue on Upper Campus is dominated by inappropriate car parking and other vehicular clutter, and unsuitable surfaces. It could be a fundamentally more attractive and useable space, in accordance with the Vision Statement of a vibrant pedestrian campus. This intervention is seen as one of the most critical, whereby massive improvements to a "sense of place" can be achieved at relatively low cost.



- 4. The plan identifies locations for academic building infill and densification on Campus, including:
 - a. New Middle Campus buildings in the existing parking area above Bremner, below All Africa House, and the School of Economics. (*Image below*)
 - b. The possibility of a redevelopment of the Bremner building for academic purposes, and the relocation of the administrative functions elsewhere on Campus.
 - c. Two new academic buildings, ideally associated with new structured parking, on Upper Campus.
 - d. An extension to the Sports Centre on Upper Campus to accommodate social facilities for students and meeting rooms.
 - e. Opportunities for infill buildings to the north of the College of Music.
 - f. A new academic building to the east of the cricket grounds adjacent to the School of Dance.
 - g. A new building on the triangular site to the north of Woolsack Residence above Woolsack Drive.
 - h. A new Medical Sciences building in the current parking area adjacent to the Anatomy Building on the Health Sciences Campus.
 - i. A new building on the site of the current Animal Unit on the Health Sciences Campus.
 - j. Infill of the courtyards behind the Wernher & Beit North Building on the Health Sciences Campus.



Large terraced area currently used for parking above Bremner (the level change can be utilised for structured parking)

- 5. Land acquisition projects are identified which are founded on the long established intent of expanding the University to the north, in order to link Middle and Lower Campus to the Corridor Precinct, and beyond to the Health Sciences Campus. The land acquisition projects include:
 - a. The historic De Meule property on Rhodes Drive (M3), proposed as a land swap with the University owned property at 'La Grotta', ideally situated adjacent to the National Government's ministerial housing precinct.⁸
 - b. The Trig Survey property on Rhodes Avenue. This would ideally support the intent to relocate and consolidate administrative functions not directly related to core academic enterprises in what constitutes the natural centre of the expanded campus.
 - c. Two sites on Main Road for student accommodation projects adjacent to 'Obz Square' residence.
- 6. The proposed infill development, along with the land acquisition projects mentioned above, is intended to **meet the space requirements of approximately 51,000 square meters** to support the growth trajectory to 32,000 students and approximately 4,000 academic and professional administrative support staff on campus to 2030.
- Student Accommodation forms a very important part of the plan in support of the vision for a residential university. Opportunities to meet the University's target of a further approximately 4,000 beds are based on the following projects: (Refer to Section 9)
 - a. The "Avenue Road" precinct, where two phases of development will provide approximately 800 beds. (Phase 1= 500 beds as per RFP, plus 536 seater dining hall, with construction recently completed)
 - b. A proposed development for residence purposes on the site to the south of Welgelegen, on the vacant land, currently used as a BMX cycle track.
 - c. Infill opportunities on underutilised land in the Forest Hill precinct which could deliver nearly 600 beds.
 - d. Redevelopment of the current inefficient Glendower Residence which could deliver a net gain of 200 beds.

⁸ Update: It is noted that both the De Meule complex and La Grotta have sustained severe fire damage on 18 April 2021.

- e. Two potential developments on Main Road (adjacent to the existing Obz Square) as identified above on land currently belonging to the Provincial Department of Transport & Public Works, which could provide up to 2,000 beds.
- f. Further Public-Private Partnership opportunities on well located private land could easily provide the additional beds required.
- 8. **Transportation network and parking improvements** (as identified in the 'CAMP 3' report by Aurecon and Parking Supply Management Plan by ITS Engineers) which include:
 - a. A new 'North' and 'South' Stop for the Jammie Shuttle, which eliminates the costly operational loop around Madiba Circle in order to access back to the metropolitan road network.
 - b. Introduction of one-way circulation system on the periphery of Upper Campus.
 - c. Opportunities for terraced parking are identified on the large parking area below the Sports Centre on Upper Campus, as well as 'infill' mixed use academic and structured parking projects on Rondebosch Upper Campus.
 - d. Agreement on appropriate parking ratios for the area including Upper, Middle and Lower Campus to the south of Woolsack Drive.
- 9. **Sports facilities** are shown as important structuring element in the open space system. A key recommendation is the joint development of the 'Hartleyvale Sports Precinct' with the City of Cape Town, the Provincial Government and community sporting associations.
- 10. **The open space networks** are broadly shown and generally comprise historic remnants of open spaces, such as Japonica Walk, and the 'Heritage Park' backdrop to the Main Campus, as well as the sports fields on the various precincts.
- 11. **Improved Amenities** are recognised, and infill opportunities for insertion of better designed and integrated food outlets etc. are identified on campus.





The following sections of the report now deal in further detail with the various '**Sectoral interventions**' and recommendations. The structure of the following sections of the report is as follows:

- <u>Section 5</u> deals with the **Institutional Framework** required to effect the implementation and approval of the IDF.
- <u>Section 6</u> deals in summary form with the **Conservation Framework** which has been prepared in parallel with the IDF. This work identifies the architectural and heritage assets of significance and is a fundamental informant to the Development Framework because it assists in identifying areas of opportunity and interventions necessary for sustaining and enhancing the sense of place.
- <u>Section 7</u> deals with the **Development Framework** where the opportunities are identified for infill development on the various precincts of Campus. This section also identifies, where triggered, approvals required in terms of the DMS for subdivision, consolidation or rezoning, all dealt with under the Annexures Section of the report.
- <u>Section 8</u> deals with the **Precinct Plans** level of detail, which integrate the various development recommendations and elaborate a high level Urban Design and Landscape Framework, and deal with the various sites at preliminary site plan scale.
- <u>Section 9</u> deals with the **Accommodation Framework**, particularly student residence accommodation as a key part of the opportunities identified in the Development Framework. Staff housing requirements are also dealt with briefly under this section.
- <u>Section 10</u> deals in summary form with the **Transportation Framework**, the subject of a detailed specialist reports the Campus Access Management Plan (CAMP) report prepared by Aurecon Engineers and the Proposed Parking Supply Management Plan, prepared by ITS Engineers. Transport includes all motorised (public transport and private vehicles) and non-motorised transport (cycle and pedestrian).

<u>Section 11</u> deals with the **Sports Framework**, with a brief analysis of needs and shortfalls in the arena of sports facilities on Campus, and highlights the potential sporting opportunities if the development of the Hartleyvale Sports Precinct is realized.

- <u>Section 12</u> deals with the Landscape Framework, prepared by P&S Captial Planning & Projects, and based on earlier work by Oberholzer at al.
- <u>Section 13</u> deals with the **Legal Framework**, and elaborates the raft of approvals necessary, both at Heritage Western Cape and the City of Cape Town, to give effect to this Development Framework and its constituent parts.
- <u>Section 14</u> is the **Conclusion** to this report.

5. INSTITUTIONAL FRAMEWORK

This section summarises the key structuring elements of the overall integrated development

5.1 Approvals Required – City of Cape Town and Heritage Western Cape.

<u>Objective</u>: To ensure local and provincial authority approval of the Integrated Development Framework and the detailed Precinct Plans, to allow for streamlined and efficient decision making and implementation, the creation of predictability and the reduction of complexity in forward planning, design and implementation. **The following approvals are required:**

- 1. The Conservation Framework, Inventory and Heritage Agreement, which have fundamentally informed the IDF, are to be submitted to Heritage Western Cape (HWC) in parallel with the planning authorisations outlined below. These endorsements and approvals will be an important step to facilitate the City's consideration of the IDF identified in 2 below; and the Inventory of Buildings/Proposed Gradings will be submitted for approval in terms of Section 30 of the NHRA, as will the proposed Conservation Framework, campus urban design frameworks, and plans for endorsement / comment, as will the Heritage Agreement for approval in terms of Section 42 of the NHRA.
- 2. **The Development Framework,** having been approved by the University, is submitted to the City of Cape Town for approval as a **Package of Plans** in terms of <u>Item 136 of the Development</u> <u>Management Scheme (DMS).</u>
- 3. The designation of UCT as a Special Planning Area (SPA) in terms of Item 136 of the DMS.
- 4. Application for the **rezoning** of various land parcels belonging to the University to Community Zone CO2 (Regional) in terms of <u>Section 44(a) of the Municipal Planning By-law (MPBL)</u>.
- 5. Application for the subdivision of certain land parcels in terms of Section 42(d) of the MPBL
- 6. Application for the **consolidation** of certain erven in terms of <u>Section 42(f) of the MPBL</u> of to rationalise underlying cadastral boundaries and allow for the distribution of floor space within each precinct.
- 7. The exemption from the City in terms of <u>Section 67(1) of the MPBL</u>, for the subdivision of certain land parcels registered as UCT property and the cession of those portions currently accommodating public roads to the City of Cape Town for Road Purposes. Also for the consolidation of land parcels that are straddled by existing buildings⁹

⁹ Section 67(1) of the MPBL makes provision for the exemption of a subdivision from approval in terms of the MPBL if it arises from "(*k*) the cession of land to the City for inclusion into a road reserve" and "(*j*) the consolidation of land units where an existing building constructed in terms of approved building plans and in accordance with such plans straddled the boundaries of two or more contiguous land units prior to the commencement of this By-law".

UCT Integrated Development Framework - BlueGreen Planning & MLH – Draft 12, May 2022

The processes described above will involve a **strategic public participation** exercise as per the requirements of the MPBL. A public participation process will be designed and agreed for the approval of this Package of Plans and related approvals, which will as far as possible be aligned with the public consultation process required by Heritage Western Cape for the endorsement of the Conservation Framework, the approval of the Heritage Inventory and the execution of a Heritage Agreement.

Note that it is intended that the statutory public participation process for both the land use management and the heritage aspects will be advertised and dealt with simultaneously.

5.2 Implement the Size and Shape Recommendations

<u>Objective</u>: To ensure the **implementation of the 'Size and Shape' Goal** which defines UCT as a "medium sized, research intensive, residential university". The following recommendations are made:

- 1. To ensure that the **appropriate physical development** is carried out timeously and efficiently to realise the capacity objectives of 32,000 students on campus by 2030, and to recognise the increased space implications of the increasing numbers and proportion of postgraduate students and the particular space requirements of this component.
- 2. In this regard, the plan must be sufficiently **adaptable and flexible** to allow that significant additional growth may occur in the Health Sciences should the required funding be secured to facilitate this growth.
- 3. Flexibility in the plan is also required to allow appropriate responses to the demand for on-line and blended mode teaching options, and to recognise that increased distance learning offerings may possibly generate increased staff and space needs. Distance learning however also increases the demand for student accommodation, particularly for students with a socio-economic disadvantage, as student residences enable remote learning, with easier access to online resources, such as access to PCs and free internet with adequate bandwith. ¹⁰

5.3 Ensure Financial Sustainability

<u>Objective</u>: To ensure financial sustainability and the allocation of adequate financial resources to fund the long term spatial development programme and integrated infrastructure development plan, the envisaged land acquisitions, and the management and staffing requirements of the University. The following recommendations are made:

- To recognise that significant amounts of funding are required to undertake the initiatives indicated in the Integrated Development Framework, and that the current South African economic context presents significant challenges to the University in this regard, rendering the opportunity to undertake significant development extremely challenging.
- 2. Given the scale and cost of anticipated developments, a mix of funding sources and vehicles will be required, including cash reserves, operating surpluses, investment income, state funding, special purpose vehicles, joint ventures and public private partnerships.

¹⁰ Equitable access to digital resources for distance has been one of the major challenges experienced by students during the COVID-19 lockdown.

5.4 Appropriate Phasing, Land acquisition and Creation of Academic and Administrative Zones

<u>Objective</u>: To purposefully phase the movement of all administrative (non-academic) functions, not directly related to the academic enterprise, out of Middle and Lower Campus to make space available for academic purposes, and to find an appropriate location for the relocation of these key administrative functions.

- The preferred location for the relocation and consolidation of these key administrative functions is at the 'Trig Survey' (Chief Directorate Surveys and Mapping) site once this property has been acquired (Note that DHET is aware of UCT's interest and has approved the on-going process to facilitate this).
- 2. The adjacent De Meule site, also possibly to be acquired from Government, by means of a land swap with the La Grotto property, could also form a suitable location for additional administrative functions. Prior to any transfer, the De Meule portion has to be subdivided from the larger Erf 28002, of which the remainder, to the west of the M3, is the City Gateway Park.
- 3. UCT has recently purchased three contiguous properties on Main Road in Mowbray Erf 28565 (the former FNB branch), Erf 30405 (the former Standard Bank branch and Erf 146813 (the former CANSA offices) 3,824m² in total extent. It is proposed to redevelop these properties for administrative purposes, so as to free up floor space on campus for teaching purposes. Assuming a height of 3 storeys and coverage of 60%, approximately 6,800m² of assignable floor area can be created.
- 4. UCT has also acquired the former SHAWCO House Erf 31049 on Main Road in Rosebank and it is proposed to use the exiting building for administrative purposes for UCT Properties & Services.

5.5 A Robust Management Framework

In parallel to the physical interventions addressed in this report, and in line with the broader Growth Management objectives of planning, it is important to address the management capacity of the University to implement the integrated development plan. This fundamentally includes financial, but also involves additional human resources. Accordingly, a number of strategic recommendations can be made:

- To enhance the capacity of the Properties and Services Department by the appointment of more full time professional and technical staff to deal with strategic development issues.
- To ensure improved digital information management and broad access to documentation pertaining to planning and design.
- To better integrate the University into the fabric of the City/southern suburbs, to ensure 'fit' within the community in which it is located; in particular to engage with the Groote Schuur Community Improvement District (GSCID) and to embrace the 'Main Road Corridor' as a key urban system vital to the functioning of the University.
- To recognise that the University is one of the large landowners and 'developers' in Cape Town, as well as a large employer, thereby performing an important role as an economic generator in the City. The University can be a force in promoting necessary urban regeneration. Universities thus perform a broader social, economic and development role as 'anchor institutions'.

- To recognise that participatory and inclusive planning is a fundamental requirement of relevant legislation and therefore the future iterations of the plan must encompass appropriate engagement with the City and other role-players.
- To recognise and mediate inherent conflicts at the 'Campus edge' in the spheres of parking conflict and proximity to student housing.
- To strive for a balance between academic and community needs, such as the sharing of facilities and improved parking and pedestrian strategies.
- To recognise the role of partnerships in achieving the University's vision and strategic goals, including public, private and non-profit sectors.
- To work with South African National Parks to (a) pursue development projects of mutual interest and (b) to safeguard the University from veldfires, as was brought to the fore by the substantial fire damage suffered on 18 April 2021.

6. CONSERVATION FRAMEWORK



6.1 Introduction

In parallel with the preparation of this IDF, a detailed conservation strategy ¹¹ for the University has been prepared by Dr Stephen Townsend assisted by Claire Abrahamse. The methodology of the strategy included a, "thorough discussion within the University including the University's Building Committee, its physical planning office, and the many consultants and experts who have conducted analytical, planning or heritage studies of the several campuses in recent years so as to clarify the University's rights and responsibilities towards its property holdings as heritage".

The work went through several versions, approved by the UB&DC, and UCT Council, culminating in the *Conservation Framework*, ('Phase Three'), which comprises the following key components:

- **1.** A Conservation Framework for the Built-Form of the University of Cape Town Submitted to UCT Council March 2016
- 2. A Survey and Inventory of the Heritage Resources of the University of Cape Town. ¹² Submitted to UCT Council March 2016
- **3.** A Draft Heritage Agreement to be signed with Heritage Western Cape.. Submitted to UCT Council March 2016

It is not the purpose of this section of the IDF report to attempt to summarise the detail contained in the Conservation Framework, and its supportive documents, which must be viewed as a key specialist report forming one of the fundamental foundations of the development strategy elaborated in the following section. This section will however summarises the key

¹¹ A Conservation Framework for the Built-Form of The University of Cape Town by Stephen Townsend Architect, Statutory Planner, Conservationist assisted by Claire Abrahamse Architect, Urban Designer, Conservationist. October 2019. It should be noted that while the Framework Report and the Report Accompanying a Survey and Inventory are dated October 2019, only certain of the zoning and similar maps have been made consistent with this Integrated Development Framework; there are numerous other changes in the campuses since March 2016 (including the name changes to the Sarah Baartman Hall and Steve Biko Place, demolitions and new buildings constructed) that have not been up-dated since March 2016. All of these many changes will be captured with the submissions made during the public circulation and comment process.

¹² A Report Accompanying a Survey and Inventory of the Heritage Resources of The University of Cape Town by Stephen Townsend Architect, Statutory Planner, Conservationist., assisted by Claire Abrahamse Architect, Urban Designer, Conservationist. October 2019.

recommendations of the Conservation Strategy, particularly as they relate to the identification of heritage places, and recommendations regarding 'significance', as these form the backdrop to the identification of opportunities for infill development where no heritage impacts are anticipated, or where they can be adequately mitigated. In other words, the Conservation Framework identifies the limits within which conservation constraints could affect development proposals and implies opportunities for the sense of place.

6.2 Previous Reports

Work conducted previously, by Robinson et al *(refer to References)* emphasised the need to prepare holistic conservation management plans for the various Precincts of Campus, and critically, to agree and finalise 'Heritage Gradings'.

6.3 Key Recommendations of the Conservation Strategy

The report states, "UCT's history and socio-political status gives its campuses special significance; and the architectural excellence and townscape coherence give several of the campuses very great visual and spatial significance. These university-related meanings and significances should dominate earlier agricultural and suburban-derived significances. As a consequence, in the assessing of the significances of the elements in the environment we have in many cases assigned higher significances (and gradings) to these buildings, spaces and places because of their university-associations or, in other cases, we have assigned lower significances than may otherwise have been anticipated to agricultural- and suburban-related elements".¹³

These are important findings and distinctions in the way UCT needs to be viewed into the future.

The Conservation Strategy recommends:

- 1. Formalising a Heritage Agreement with Heritage Western Cape.
- 2. Agreement on proposed Gradings (Significance) as per the Inventory
- 3. Possible exclusion of UCT-owned properties from Heritage Protection Overlay Zones, where they overlap with the proposed Special Planning Area (part of a separate process)
- 4. Identifying where further study is required, in particular the development of detailed precinct plans.

6.4 Proposed Heritage Significance/Gradings

A key outcome of the Conservation Framework, and a key input to the IDF, is the set of recommendations relating to Heritage Significance (both buildings and 'curtilages') of the buildings and places on the University. These recommendations are contained in the report 'A Survey and Inventory of the Heritage Resources of the University of Cape Town'.

Townsend et al note that the, "proposed gradings are often rather different from previous assessments: First, they now explicitly recognise the necessity for growth and change on the campuses, second, they take account of the necessity to have a rational and clear division of

¹³ A Report Accompanying a Survey and Inventory of the Heritage Resources of The University of Cape Town by Stephen Townsend Architect, Statutory Planner, Conservationist., assisted by Claire Abrahamse Architect, Urban Designer, Conservationist. October 2019, pp21-22.

regulatory authority, third, they take account of what we have called "heritage curtilages", fourth, in many cases the new gradings, taking the University's significance into account, are rather higher than previously assessed, and finally, given our down-playing certain significances derived from preuniversity uses, in many cases the new gradings are rather lower than previously assessed".¹⁴

These gradings and the areas of significance are represented and summarised in the following figures, sourced from the Townsend/Abrahamse reports, but captured at the same scale as the Precinct diagrams in Section 8 of this report. (Note that the University awaits the result of the public participation process in terms of getting broader community commentary on the proposed gradings.) The full descriptive narratives of each precinct/building/curtilage are contained in the Inventory, and are not repeated here.

¹⁴ A Conservation Framework for the Built-Form of The University of Cape Town by Stephen Townsend Architect, Statutory Planner, Conservationist assisted by Claire Abrahamse Architect, Urban Designer, Conservationist. October 2019, p24.



Figure 12. Heritage Grading - Rondebosch Upper Campus

- The entire extent of Upper Campus is recommended (part of it already proclaimed) as a Grade II Provincial Heritage Site (PHS)
- o Many of the individual buildings on Upper Campus are recommended as Grade II PHS
- The remaining buildings have been indicated as either Grade III (A, B or C);
- Some of the buildings on the upper parts of campus have little or no heritage significance.
- The 'backdrop' to the university of the existing pine forest, which also adjoins the Table Mountain National Park is a critical part of the heritage landscape.

2. Rondebosch Middle and Lower Campus



Figure 13 Heritage Grading - Rondebosch Middle and Lower Campus

Several parts of Middle and Lower Campus are recommended as Grade II PHS, and include:

- The Belvedere (Summer House) and Japonica Walk
- The Woolsack and its forecourt
- o Glenara, Stubenholm, and the Baxter Theatre
- Some of the remaining buildings, and related 'curtilages' have been identified as Grade III (A,B or C), including:
 - The Cricket Oval
 - \circ $\;$ The landscape precinct below the Bremner Building,
 - The School of Dance
 - The Kramer Law Building

3. Rosebank Residence Precinct



Figure 14 Heritage Grading - Rosebank Residence Precinct

- Welgelegen and its immediate curtilage is the only part of this Precinct recommended as Grade II PHS.
 - Other elements of Grade III significance are:
 - Burnage Grade IIIA

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- The SS Mendi Memorial Grade IIIA
- The visual axis to the east of Welgelegen Grade IIIA
- Graca Machel Hall's forecourt Grade IIIC

4. Mowbray Residence Precinct



Figure 15 Heritage Grading - Mowbray Residence Precinct

This Precinct contains three examples of Grade IIIA heritage resources:

- o Ivan Toms Building (former Princess Christian Home)
- Avenue House and
- Cadboll House

It is important to note that the University House barracks have been accorded no significance warranting protective measures in the Conservation Framework/Inventory and further consideration is given in the following sections of this report to its redevelopment potential. Heritage/urban design informants for such redevelopmjent would be required to mitigate potential impacts on the backdrop of the Ivan Toms Building and the setting / views towards Mostert's Mill from the M3.

The remainder of this Precinct has been the subject of two urban design studies (around the Avenue House subprecinct, and the Forest Hill sub-precinct) to provide the framework for the urgent implementation of new student housing development, which will be able to improve the accommodation thresholds and sense of place and coherence of this Precinct.

Further recommendations are made in this regard in the following section of this report.

5. Health Sciences Campus



Figure 16 Heritage Grading - Health Sciences Campus

This Precinct contains a fine collection of significant buildings, including:

- Wernher & Beit North and South, Wolfson Pavilion, Mortuary Building, forecourt proposed Grade II PHS
- o Individual buildings and complex Medical Residence and Library Grade IIIA and C

6.5 Exising Heritage Protection Overlay Zones (HPOZ)

Figure 17 below shows the existing HPOZ's that impact on UCT properties within the proposed Special Planning Area.

- HPO # 22 Mowbray Rosebank
- HPO # 24 Upper Rondebosch.

As pointed out in the Conservation Framework, the overlapping of decision making between the the provisions of the proposed Heritage Agreement with HWC, as well as this IDF report, leads to unnecessary complexity and obviate the need for parallel consent applications to Council in terms of the Development Management Scheme, to build within an HPOZ.

Possible future amendments to the HPOZ boundaries would however form part of a separate process associated with the City's regular review of the Development Management Scheme and HPOZ's.



Figure 17 Existing Heritage Protection Overlay Zones

6.6 Other Campuses

In relation to the other Campuses, the Conservation Framework report also makes the following recommendations:

- Hiddingh Campus, City Centre entire campus as Grade II heritage resource;
- Breakwater Campus, V&A Waterfront Grade II heritage resource.

6.7 Heritage Agreement

The Heritage Agreement is intended to clarify the University's responsibilities towards its property holdings, and to clarify the protections and restrictive controls to be imposed on the heritage components of UCT's landholdings, by the planning authorities (City of Cape Town) and heritage authorities (Heritage Western Cape) in the future, and to rationally guide the intensification of use of the various campuses. The Conservation Framework and the Survey/Inventory form the basis of the Heritage Agreement, to be signed between UCT and HWC, in terms of Section 42 of the NHRA.

The purpose of the Heritage Agreement is accordingly to enable the parties to conserve, manage and maintain the Campuses in a manner that is consistent with the NHRA; the Municipal Planning By-Law; the Conservation Framework; this IDF and its related Precinct Plans, Site Development Plans, and Building Plans, to be prepared in the future.

Further, the purpose is to provide a high degree of predictability regarding both the outcomes and the time necessary for the approval in terms of the NHRA of any proposed improvements and to reduce and/or minimise any potential adverse implications for Heritage Resources on the Campuses, and to formally protect all identified Heritage Resources located on the Campuses.

The Agreement will thereby enable exemptions from Section 34 (buildings older than 60 years) and Section 38 (Notifications of Intent to Develop) of the NHRA, and will ensure clear administrative processes where these, and other sections of the NHRA, as well as heritage related sections of the MPBL, could be applicable.¹⁵

¹⁵ Townsend and Abrahamse, 2019, Conservation Framework, pp10-11.

6.8 Conclusions of the Conservation Framework

The Conservation Framework makes the following conclusions:

"This Conservation Framework and the accompanying Survey/Inventory articulate the significances of the University's built form, identify the buildings, landscapes and townscapes which warrant some form of protection, outline the University's rights to use and develop its property holdings, and, most importantly, outline the protective mechanisms which will be brought to bear by the authorities, the provincial heritage resources authority, Heritage Western Cape and the City of Cape Town. These two documents, this Conservation Framework and the Survey/Inventory, are the central components of the Heritage Agreement between the University and the provincial heritage resources authority, Heritage Western Cape, enabling the University to be confident of the degree and nature of scrutiny to which its proposals would be subject; and to be confident of the processes (time) and of the outcomes (approval or refusal) of development applications." The Heritage Agreement outlines of the responsibilities of the University and the authorities when making and considering development applications, more detailed precinct plans, and inventories of heritage resources. **This Conservation Framework is an important component and informant of the Integrated Development Framework which, it is intended, will itself be formalised as a component of the City of Cape Town's Municipal Planning By- Law 'Package of Plans' process."¹⁶**

"In effect the Heritage Agreement with the Conservation Framework and Inventory, read together, articulate the significances of the heritage resources on or comprising the campuses, they clarify the powers and responsibilities of the authorities under both the heritage resources law and under the municipal planning by-law, and they identify a number of actions to be taken by the University, Heritage Western Cape and the City Council". ¹⁷

<u>Note</u> - As is the case in the V&A Waterfront's Package of Plans process, more detailed Precinct Urban Design Plans and Site Development Plans will be required in the future and will be submitted to Heritage Western Cape for approval.

¹⁶ Townsend and Abrahamse, 2019, Conservation Framework, p36.

¹⁷ Ibid

7. DEVELOPMENT FRAMEWORK

The 'headline recommendations' of the IDF have been summarised in Section 4. This section of the report describes the key elements of the Development Framework, before more detailed Precinct level recommendations are made in Section 8.

7.1 Space Requirements

The approximate additional space requirements for the University to 2030 are summarised below. They are provided by the University's Institutional Planning Department and Properties and Services. These figures are an important input to the Integrated Development Framework, which is tasked with ensuring that the spatial needs of the University's intended growth trajectory are provided for.

The figures are based on the assumption (as contained in the Size and Shape report) that the student enrolment target of **32,000 students by 2030** is split 60/40 undergraduates (UG) and post graduates (PG), respectively.

Table 7.1 Estimated Additional Space Requirements	s (*UG – Undergraduate PG – Postgraduate)
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UG & PG*:	Classrooms & Class Laboratories:	7 680 m²
UG & PG:	Open Laboratories:	20 500 m²
PG:	Research Laboratories:	10 240 m²
PG:	Office Space:	768 m²
PG	Post Docs	1 800 m²
Total Future Estimated Student Academic Space Requirements: 40		40 988 m²

Staff Required (Academic) = 534 at average 18 m^2 per staff member = 9 612 m^2 .

Therefore academic and staff total floor area required : 40 988m² + 9 612m² = 50 600 m²

Hence, approximately 50 600m² of total floor space needs to be found in new infill development areas across all the UCT Campuses for academic and staff purposes. This figure does *not* include student housing requirements.

The following sections of this report provide the framework for where this infill growth is anticipated. The report also analyses the permissible and residual development rights, taking account of existing development, in terms of the underlying zoning restrictions.

7.2 Objectives : Strategic Internal 'Infill' Development

A key objective of the Development Framework, as described in Section 4.2, is to strategically develop land within the current university landholdings (rather than land acquisition) in accordance with the principles of densification, intensification and efficient use of resources, elaborated in the guiding principles in Section 3.

In this regard, it is noted that significant opportunities exist for new buildings, particularly on parts of Upper, Lower and Middle Campus. Given the heritage significance of these precincts, it is imperative that the Institutional Framework recommendations above are implemented to avoid unnecessarily long lead times in planning and heritage approvals.

However, the underlying zoning provisions regarding the permissible bulk/floor areas of these properties (primarily zoned as Community Zone 2 – Regional) suggest that there are inherent opportunities for sensitive and appropriate infill. The remaining floor areas per Precinct are also further unpacked in this report.



Figure 18 Figure Ground Diagram (*Source: Phase One Conservation Framework for the University of Cape Town. October 2013. Figure 9*). The 'arcadian' setting of much of Upper, Middle and Lower Campus is evident, with large areas devoted to sports facilities and open spaces. There is ample available space for the growth requirements of the University within the existing campuses, and indeed, sensitive and well-considered insertions of new buildings can do much to improve the quality and the sense of place of the various precincts of UCT.

7.3 Summary of Infill Opportunities to meet the Space Requirements to 2030/2040

The following properties represent the opportunities for development on current UCT landholdings: (All the identified strategic development sites have been previously summarised in Section 4 of this report, and are further detailed in the Precinct Plans and Site Plans following).

 On Rondebosch Upper Campus – Two new academic buildings (incorporating structured parking) are envisaged, in the north west corner 'above' the Molecular Biology, and in the south west above the Leslie building. Both these sites are currently occupied by open parking areas. In addition, a social space and meeting facilities in an east wing extension to the Sports Centre are being planned, as well as new structured parking in the existing parking area north of the Sports Centre. Such increased parking capacity is necessary to allow for the pedestrianisation of University Avenue.

- 2. On Rondebosch Middle Campus Two new academic buildings are envisaged above Bremner, on the parking areas east of All Africa House and the School of Economics. In the long term, the Bremner Building itself could be redeveloped to academic purpose and the administration functions relocated. (As presently envisaged, to the recently acquired site to the north of Mowbray Library on Main Road and to the Trig Survey building, subject to the conclusion of negotiations with Department of Public Works). A further development site is has been identified on the triangular piece of land adjacent to Woolsack Drive and Woolsack Residence. This site is highly suitable for academic or residential purposes. Building plans have recently been approved for its development as the UCT School of Design Thinking ('dschool') and construction has commenced. Smaller infill opportunities for academic buildings exist around the cricket oval on Middle Campus; and will be subject to detailed site assessments of existing landscape. These sites will strengthen the pedestrian access towards Upper Campus.
- 3. On Rondebosch Lower Campus a number of infill development opportunities are identified including new academic buildings around the Cricket Oval adjacent to the School of Dance, in the areas around the Old Administration Building and in the area west of Glenara. One such development on the 'Up-Along' site, adjacent to the School of Dance, is a new School of Education and construction has commenced. Further infill is possible on the land currently used for parking to the south of the Baxter Theatre. These sites will further strengthen the east-west pedestrian access between main Road and Upper Campus.
- 4. In the Rosebank Residence Precinct a large area is available for infill development to the south of Welgelegen (it is anticipated this should be a student residence building). In the long term, a redevelopment of the 'sports sub-precinct' (above Graca Machel residence, incorporating the squash courts, scuba club and gym) is probable.
- 5. In the Mowbray Residence Precinct significant new development opportunities for student housing are envisaged, in the Avenue Road sub-precinct and the Forest Hill sub-precinct.
- 6. **On the Health Sciences Campus** a new Medical Sciences Building has been proposed for some time on the parking area to the south of the Anatomy building. Additional infill structures are also proposed at the Animal Unit site and at Wernher & Beit North.

Figure 19 indicates these infill development opportunities at 'Development Framework' level. The development opportunities as described are firmly founded on the Conservation Framework informants described in the previous section of this report, which are indicated on Figure 16. All infill development opportunities have been identified outside of any important heritage and landscape curtilages, and in this way should simplify future development approvals.

The following sections of this report deals with these development opportunities in further detail at Precinct level.

8. PRECINCT PLANS (Key Urban Design and Landscape Structuring Elements)

The Development Framework described and illustrated above is elaborated in this section at the level of more detailed Precinct Plans. The plans in this section illustrate at a high level the 'precinct scale' interventions which are structured around key urban design and landscape elements. Where relevant, parking and transport related interventions are described.

Section 8.8 of this report, and Annexure G deal with floor area calculations as per the requirements of the DMS.

8.1 RONDEBOSCH UPPER CAMPUS (Figure 20)

- 8.1.1 The key urban design and landscape interventions at Upper Campus include:
 - 1. The Pedestrianisation of University Avenue. (*This intervention is one of the most important and will meet a wide range of the Guiding Principles defined in Section 3 of this report*).
 - 2. The improvement of internal pedestrian linkages throughout Campus,
 - 3. Two new academic buildings, a conference centre, and structured parking, on the P8/16, and P11/12 parking areas,
 - 4. The improvement of public spaces, particularly the area between Fuller and Smuts Halls, currently occupied by parking.
- **8.1.2** Parking and Transport related improvements, elaborated in following sections of this report, include:
 - 1. The creation of a one-way internal ring road system
 - 2. The creation of new parking areas, to replace the parking bays lost on University Avenue. These include:
 - a. Investigation of structured parking on P1 area
 - b. As mentioned above, structured parking within the two development areas identified
 - c. Whilst not a specific recommendation of this report, as it involves SANParks land, it is worth recording that additional parking is possible on this adjacent land. Such parking was envisaged as part of the upgrading and improvement of the Old Zoo site, which was proposed in the Groote Schuur Estate Conservation and Development Framework. Opportunities exist to provide combined university and public use of extended parking facilities to support the upgrading of the Zoo site.
 - 3. The creation of a two new Jammie Shuttle termini on Upper Campus the 'North Stop' and the 'South Stop' as per the recommendations of the transport engineers.

<u>Note:</u> Due to the location of Upper Campus adjacent to the Table Mountain National Park, cognizance be taken of the City's Veldfire Related Planning Guidelines (2004).



8.1.3 Site Development Plan Scale – Indicative Diagrams and Urban Planning Guidelines of Potential Infill Development Sites on Rondebosch Upper Campus

The sites identified in the above Precinct Plan scale urban design and landscape proposals are illustrated in further detail below at the Site Development (SDP) scale. Note these are simply two-dimensional identifications of the applicable land parcels at this stage; whilst some indicative figures are proposed for potential floor area, further three-dimensional urban design and architectural investigations will be needed to further inform the SDP level.



Fig 20a Proposed location of new mixed use buildings incorporating structured parking

As indicated at Precinct Plan level, there are two opportunities for infill development on Upper campus at either end of the upper row of buildings on campus, which could form "bookends" to the current urban form, as indicated above. The development potential of these two sites is indicated in further detail below. Any redevelopment of these properties should include structured parking to meet the need to replace current 'street-parking' on Campus – in particular to permit the Pedestrianisation of University Avenue.



Fig 20b Upper Campus south west (P11/12) - above Leslie. This site is approximately 3,000m² in extent. It should be developed with the retention of the at-grade pedestrian access as indicated.

Indicative assumptions regarding height and bulk for this site are as follows;

- Site area: approx. 3,000m² x 3 floors parking (= approx. 250-300 bays),
- plus 3 floors academic space = approx. 9,000m² (i.e. basement + 5 floors)



Fig 20c Upper Campus north west (P8/16) above Molecular Biology. This site is approximately 3,700m² in extent, and is used for surface parking.

Indicative assumptions regarding height and bulk for this site are as follows:

- Site area: 3,700m² x 3 floors parking (= approx. 350bays),
- plus 3 floors academic space = approx. 11,000m² (i.e. basement + 5 floors)



Fig 20d Potential Structured parking on Parking Area 1 (P1)

To further relieve the pressure for on-street parking on Upper Campus, and to create the opportunity to free up space for the pedestrianisation of University Avenue and other key public space across campus, there will be a need to explore further structured parking opportunities. One of the potential sites for investigation is the large parking area north of the Sports Centre (P1). This site has particular challenges in relation to visual impact given its proximity to the M3 (scenic drive), and any redevelopment will need to ensure a 'staggered green building' with maximum use of landscaping at all levels to soften the impact from Rhodes Drive. A preliminary assessment and feasibility study has been done of a structured parking solution, which will require further detailed exploration.

The development footprint will need to carefully consider existing trees to be retained to mitigate visual impacts. Indeed, any development exploration will require a thorough Landscape and Visual Impact Assessment. (VIA)

As a very preliminary estimate of potential parking, the areas indicated in blue in Fig 17d above cover an area of approximately 9,500 m² and are set back sufficiently from the site edges to permit as much retention of existing mature trees as possible, and to allow appropriate landscaping and pedestrian zones. At 30m² per bay, (which allows for circulation space) and an assumed 3 to 4 levels (depending on basement and roof deck parking) a potential of 900 to 1,200 bays is possible, which will go a long way to relieving current parking congestion on Campus, but in particular, permit the pedestrianisation of University Avenue.



Fig 20e The approved Jammie Shuttle North Stop, incorporating pedestrian linkages to Upper Campus. (Source: Viridian Landscape Architects)



Fig 20f Proposed Jammie Shuttle South Stop (Parking Area P5)



Fig 20g Proposed Extension to the Sports Centre on Upper Campus

At the south-western corner of the UCT Sports Centre, it is proposed to build an extension to the building to accommodate a students' union social space / student activity centre, as well as meeting rooms and a covered terrace. The building is likely to range between one and three storeys in height, will have a floor space of \pm 2,350m² and should be sympathetic to the modernist architectural style of the existing Sports Centre.

8.2 RONDEBOSCH MIDDLE AND LOWER CAMPUS (Figure 21)

- **8.2.1** The key urban design and landscape interventions at Rondebosch Middle and Lower Campus include:
 - The improvement and enhancement of pedestrian linkages, both the 'east-west' linkages between Main Road and through to Upper Campus, and the 'north-south boulevard' pedestrian linkages to the Rosebank Residence Precinct (ensuring safe pedestrian crossings over Woolsack) and beyond to the Mowbray Residence and Health Sciences Precinct – the "North-South Boulevard". These interventions are further described in the Landscape Framework Section of this report.
 - 2. A number of infill development opportunities exist on Middle and Lower Campus. These could strongly contribute to enhancing the overall urban design objectives of the creation of a more "intensive campus sense of place". Identification of infill development sites for new academic buildings, as described in Section 7.3 are further elaborated below.
 - 3. The improvement and enhancement of public spaces, notably the opportunity to create a new 'public square' below the Cricket Oval at the intersection of the main 'north-south boulevard' and an 'east-west' connection up to Middle Campus.
 - 4. The Conservation Framework identifies the need for an urban design framework to ensure that these interventions contribute to and enhance the sense of place.

There are no significant parking and transport related improvements in this Precinct, other than the improvement of cycleways (Refer to Section 10).



8.2.2 Site Development Plan Scale – Indicative Diagrams and Urban Planning Guidelines of Potential Infill Development Sites on Rondebosch Middle and Lower Campus

The sites identified in the above Precinct Plan scale urban design and landscape proposals are illustrated in further detail below at the Site Development scale. Note these are simply two-dimensional identifications of the applicable land parcels at this stage; whilst some indicative figures are proposed for potential floor area, further three-dimensional urban design, landscape and architectural elaboration will be needed to further inform the SDP level.



Figure 21a Previous work in this precinct similarly identified a range of infill development opportunities for academic buildings. (Reference: Draft Lower Campus Precinct Plan, 2011)



Figure 21bRondebosch Middle Campus - Infill opportunities above Bremner Building,indicating key pedestrian linkages)

Figure 21b represents two significant potential sites for new academic buildings on the existing parking areas above Bremner Building. There is potential for structured parking (at semi-basement level) given the fall of land, and the building footprints will fit well into the 'grid framework' already established in the School of Economics and All Africa House Precinct; as well as link into the grid of pedestrian networks emanating from Japonica Walk. Building style would be either a similar courtyard footprint as All Africa House; or larger pavilion building as per Kramer. A three storey height limit is suggested, excluding parking sub-basements.

These 2 sites are approximately 2,000 and 2,200m². At three stories, plus three levels of basement parking), they could accommodate approximately 12,000m² of academic space, and approximately 300 - 350 parking bays)



Fig 21c Infill opportunity Erf 46041

Figure 18c indicates in broad terms a potential development footprint (indicated in blue) on the existing parking area on Erf 46041, zoned for CO2 purposes. This is a particularly important site being at the nexus of several important pedestrian links, which culminate at this space before proceeding under Rhodes Drive/M3 onto Upper Campus, and it is not used to best advantage to the University as a parking area. A mixed use academic/student services/administrative building, fronting onto a landscaped square will be a far better use of this valuable property, providing an 'arrival' point at the end of the subway, and providing surveillance of this space. The proposed public square (indicated in green) can continue to provide vehicular access (Stanley Road) to the university properties to the south.

Estimated site area $-1,000m^2$ at modest two storey building would provide approximately $2,000m^2$ of space, with commensurate loss of some 80 parking bays. Some covered parking will need to be included as part of this development.



Figure 21d : Indicative development footprint of infill site adjacent to Woolsack Drive and the Woolsack Residences.

This site is outside any identified conservation or landscape curtilage, as indicated in Section 6. It occupies an elevated position adjacent to a busy metropolitan road. It has potential for academic purposes as it occupies a position on important pedestrian linkages, (indicated in yellow – the pedestrian bridge over Woolsack, and the pedestrian bridge over the access road into Middle Campus, and under the freeway onto Upper Campus).

The triangular site area above is approx. $2,100m^2$. Assuming an approximate 60% coverage and a three storey building, partly buried in the topography – approximately $3,800m^2$ of floor space is possible. Building plans by KMH Architects were approved by the City in 2020 and construction of the UCT School of Design Thinking ('d-school') on this site is currently underway. This building will have $\pm 3,800m^2$ of floor space and 18 structured parking bays.



Figure 21e : (Cricket Oval sub-precinct) Indicative development footprints of proposed infill sites on Clubhouse and School of Dance sites, (blue) illustrating importance of pedestrian linkages, (yellow) and public spaces (green). Any development in this precinct must be based on a detailed tree survey and landscape plan.

Development infill has been contemplated for some time by the university around the cricket oval. The area is surrounded by mature trees, and will be sensitive to development, but with sensitive infill, and protection of significant trees, represents a profound opportunity to achieve a greater intensity of development on Middle Campus, and one that can strengthen the 'east –west' pedestrian corridor indicated on the Development Framework and Precinct Plan. Any development will need to ensure the needs of cricket are retained and enhanced, as well as respond to existing vegetation.

Site 1 approx. 2,000m²: Two storey building – approx. 2,500m² possible floor space, subject to detailed design and accommodation of cricket needs.

Site 2 approx. 2,800m² : Three - four storey/atrium building, of which one storey below ground – approx. 4,400m² possible floor space. Building plans by Jacobs Parker Architects as well as a landscape plan by Tarna Klitzer Landscape Architects have recently been approved by the City and it is currently under construction. The Development will accommodate new offices, classrooms and a below-ground lecture theatre for UCT's School of Education. This building will have a floor space of ± 3 500m² and will accommodate ± 750 students, 37 offices and 9 new parking bays.



Figure 21f. Indicative development footprints of potential development parcels (blue) in College of Music/Baxter sub-precinct, indicating important pedestrian links (yellow) and public space areas (green).

As identified in the Conservation Framework, there are several isolated buildings of heritage significance in this sub-precinct, including Glenara, Strubenholm, C Sharp Cottage, the Old Admin Building and Baxter Theatre; however the remainder of the precinct lacks cohesion, other than being set in a very green/well treed environment. The potential infill sites identified are intended to strengthen a 'sense of place' in this precinct, as well as reinforce the pedestrian linkages and potential public space at the 'knuckle points' on this network. The Conservation Framework identifies the need for an urban design framework to ensure that these interventions contribute to and enhance the sense of place.

The potential infill areas cover approximately 5,000m² floor area (excluding 'Site 2' adjacent to the Cricket Oval, dealt with above), and at a modest 2 to 3 storey height limit, could accommodate approximately 10,000m² of new academic space. This rough estimate will require confirmation by means of more detailed urban design and landscape studies at SDP level.
8.3 Summary Table – Potential Infill Development vs Identified Growth Needs (Upper, Middle and Lower Campus)

Before proceeding to assess the remaining Precincts making up the Development Framework (which comprise primarily the Residential Campuses), the potential academic space identified in the Rondebosch Upper Campus and the Rondebosch Middle and Lower Campus is assessed below, compared to the approximately 50,600m² of space identified in Section 7.1 (Table 7.1) of this report.

UC	T INFILL DEVELOPMENT OPP	ORTUNITIES			
RONDEBOSCH UPPER MIDDLE AND LOWER					
CA	MPUS				
	Infill Site	Site Area m ²	Possible Parking	Estimated Floor Area (m ²)	Factor approx
	Upper Campus				
	SW P11/12	3,000	250	9,000	3.0
	NW P8/16	3,700	350	11,000	3.0
	Structured parking P1 (est)		1,000		
	Sports Centre Extension	1,150		2,350	2.0
	Middle Campus				
	Upper Bremner A and B	4,200	300	12,000	2.9
	Erf 46041 (at Stanley Road)	1,000	-80	2,000	2.0
	Woolsack Triangle	2,100	18	3,800	1.8
	Up-Along Site (lower Oval/School of Dance)	2,800	9	3,480	1.2
	Cricket Oval Pavilion	2,000		2,500	1.3
	Lower Campus				
	Baxter/SoM sub-precinct	5,000		10,000	2.0
	(4 sites cumulative)				
	Approx Total Potential				
	Infill Development	24,950	1,847 (net)	56,130	2.24
	Estimated Requirements			50,600	
	Net surplus			5,530	

Table 8.1Indicative Floor Space Achieved

As indicated in the above table, in 'approximated principle', the infill development opportunities on these campuses can potentially meet the long term requirements for academic and teaching space, (with an estimated surplus of approximately 5,530m², giving some future flexibility in phasing and choice of sites). It is important to note that these are indicative and 'high level' estimates, and will need to be verified by detailed site development level planning. The floor factor indicated is indicative only and subject to detailed study. Also note the table excludes the Health Sciences Campus, which could accommodate a further approx. 16,000m² in new academic development.

The table also indicates that approximately 1,900 new parking bays could be provided within new structure. A detailed assessment will need to be carried out in regard to parking potential, and net loss, in particular the loss of parking from University Avenue will need to be deducted from this figure to assess potential net gain.

Currently, only 76 cars are provided with parking in University Avenue. Their displacement to nearby structured parking opportunities will release significant social, environmental, and economic benefit by relinquishing private space for a truly great pedestrianised 'spine' through the 'heart' of Upper Campus, and will meet most of the Principles and Objectives as described earlier in this report. The importance of pursuing this initiative cannot be overstressed.

8.4 ROSEBANK RESIDENCE PRECINCT (Fig 22)

8.4.1 The key urban design and landscape interventions in the Rosebank Residence Precinct include:

1. The improvement and enhancement of pedestrian linkages and cycle ways, particularly the two proposed 'north-south' pedestrian routes on-contour, provisionally named as "Upper Boulevard" and "Lower Boulevard" (the previously named 'Great Street' proposal of the unpublished 2005 report. Some distinctive and resonant names for these corridors should be decided). These links connect the Rosebank Residence Precinct (including two safe pedestrian crossings over Woolsack Drive, one being the existing bridge, and a further bridge proposed above Graca Machel) southwards to Middle Campus and northwards to the Mowbray Residence and Health Sciences Precinct. These interventions are further explored in the Landscape Framework Section of this report.

2. A number of infill development opportunities, as described in Section 7 are indicated, including a proposed student residence building to the south of Welgelegen on the current 'BMX' track.

3. A proposed public-private partnership initiative with the City of Cape Town to develop the underutilised land above the sports fields of the Rhodes Recreation Ground. As further described in Section 11 of this report (Sports Framework) UCT is in serious need for more sports facilities, and this land could provide home for shared facilities with the public. (Note this land is encumbered by the conditions of the Deed of Grant).

4. The improvement and enhancement of public spaces, particularly around the Mendi Memorial, and the improvement of landscape along key movement routes, including the bermed area on the Hare's Hockey field, and the soccer field at Kopano.

5. The Conservation Framwork identifies the need for an urban design framework to ensure that these interventions contribute to and enhance the sense of place.

There are no significant parking and transport related improvements in this Precinct, other than the improvement of cycle ways, more fully described in the Transport Framework section of this report.



8.4.2 Site Development Plan Scale – Indicative Diagrams and Urban Planning Guidelines of Potential Infill Development Sites

The sites identified in the above Precinct Plan scale urban design and landscape proposals are illustrated in further detail below at the Site Development scale. Note these are simply two-dimensional identifications of the applicable land parcels at this stage; whilst some indicative figures are proposed for potential floor area, further three-dimensional urban design, landscape and architectural exploration will be needed to further inform the SDP level.



Figure 22a Proposed sites for new development. The diagram above indicates the following infill development opportunities:

(a) Site 1. 'Welgelegen South'. (Erf 32100)

This property represents a significant infill development opportunity for the University, and the potential location of students close to Campus. The property is already appropriately zoned Community Zone 2 (Regional). The site is highly accessible to the core of academic buildings and is linked by existing pedestrian bridges over Woolsack Drive, linking to the pedestrian underpass under the M3. Whilst it is a highly disturbed site, having been used for BMX bicycle tracks, it is also visually prominent, and being adjacent to the M3 Scenic Drive, will require very careful consideration in design.

The Conservation Framework has identified the heritage significance and curtilages around Welgelegen, which supports the possibility of a development footprint as broadly indicated above and on Figure 22.

A detailed urban design and development assessment, including heritage, architectural, traffic and visual issues needs to be completed to establish the potential building envelope and design parameters for this site, but the following high level urban design recommendations should include:

- Landscaped berms should be implemented around the property to mitigate visual impact,
- Added landscaping should be implemented within the off ramps to further enhance the landscaped setting, and to screen the building from the Scenic Drive
- Parking should ideally be in basement or sub-basement, to eliminate any visual impact of external parking areas
- The building should be a maximum of three stories; potentially of a courtyard configuration
- Attention should be given to enhance the connectivity to the existing pedestrian link over Woolsack.

In terms of an estimate of student accommodation, the following assumptions are made:

- Courtyard configuration approximate footprint is 2,500m²
- Assuming a three storey building, with communal facilities on ground floor, approximately 7,500m² space is available
- At net 20m² per unit, this site could therefore accommodate approximately **375** students.

(b) Rhodes Recreation Ground – SDP level recommendations

It is proposed that future discussions are held between the university, the City, and the Mowbray Residents association and other interested parties on the future use, and leasehold, of the Rhodes Recreation Ground, in particular the area of the old bowling club, which could in principle accommodate some development which could "activate" and provide surveillance over the proposed main pedestrian boulevard.

8.5 MOWBRAY RESIDENCE PRECINCT (Fig 23)

8.5.1 The key urban design and landscape interventions in the Mowbray Residence Precinct include:

1. The improvement and enhancement of pedestrian linkages and cycle ways, particularly the continuation of the proposed 'north-south' "Lower Boulevard" along Avenue Road towards the Hares hockey field.

2. A Public space is proposed where this pedestrian and cycle boulevard crosses Rhodes Avenue – see detail below. This is an important "knuckle" point in the pedestrian and cycle linkages across Campus.

3. A number of infill development opportunities for student residences, further described in Section 9 are indicated, including;

- A proposed student residence building behind Avenue House and Cadboll (Phase 1), completed in November 2020;
- The redevelopment of the Edwin Hart Annex site (Phase 2);
- The possible future student residence building on the site of the old University House barracks (Phase 3).
- The development of the large courtyard space in the Forest Hill Residence complex

4. A proposal to investigate a pedestrian bridge over the N2 to continue and directly connect the "Lower Boulevard" and Broad Street to the Health Sciences Campus via Falmouth Road.

5. The Conservation Framwork identifies the need for an urban design framework to ensure that these interventions contribute to and enhance the sense of place.

There are no other significant parking and transport related improvements in this Precinct, other than the improvement of cycle ways.



Buildings		UCT Buildings				
Curtilage (Urba	n)	Key Public Spaces				
Curtilage (Gree	en)	Infill Amenity Sites				
n th South Pedestrian		Proposed Structural Landscape				
		[] Proposed Academic Infill Sites				
West Pedestrian		Proposed Student Housing Infill / Indicative Sites				
d Pedestrian and Cycle nents		Number of floors excluding basements				
RECINCT	Sca	Ale @ A3 1:2000				

8.5.2 Site Development Plan Scale – Indicative Diagrams and Urban Planning Guidelines of Potential Infill Development Sites

The sites identified in the above Precinct Plan scale urban design and landscape proposals are illustrated in further detail below at the Site Development scale. Note these are simply 2-Dimensional identifications of the applicable land parcels at this stage; whilst some indicative figures are proposed for potential floor area, further 3-Dimensional urban design and landscape studies will be needed to further inform the SDP level.



Fig 23a Location of Proposed Public Space on 'Lower Boulevard' below Edwin Hart complex.

Figure 23a indicates the opportunity to create an enhanced public space (green outline) on Rhodes Avenue at the intersection of the 'Lower Boulevard' (yellow stipple line) along Avenue Road and Cecil Road. Rhodes Avenue provides the pedestrian linking route between Main Road, the Mowbray Residence Precinct, and the pedestrian Bridge over the M3 (green stipple) to Upper Campus, and is an important street for landscape intervention and pedestrian improvements.

Infill development opportunities for Student Housing

This precinct contains significant opportunities to increase the number of student beds on Campus, in line with the objectives, namely to house at least a third of students in university accommodation. (Refer to Section 9 for a quantitative analysis of student accommodation)

The following figures and short narrative describe the main development opportunities in this precinct.

Considerable work has been done by the university in the development of the Avenue Road site and a full Heritage Impact Assessment process was undertaken for this project in 2000.



Figure 23b: Location of Student Housing projects in the Avenue Road area

• Avenue Road Infill Opportunities (Fig 23b to d)

The current Conservation Framework established definitive curtilages around the buildings of heritage significance in this precinct, including Ivan Toms, Cadbol and Avenue House. The remaining fabric has been found to have no heritage significance, and this creates the opportunity for possible additional student accommodation infill development, indicated on Figure 23b.

Figure 23c illustrates the Phase 1 and Phase 2 proposals for a new student residence. These proposals have already been approved by HWC and the City. Phase 1, with Jakupa Architects & Urban Designers as project architects, has been completed in November 2020. Phase 1 consists of 500 new beds, along with a large new dining hall.

Phase 2 of the Avenue Road precinct will involve the demolition of Edwin Hart Annex and three of the University House barracks and the construction of a new residence of 173 beds. The total approved student and warden accommodation in Phases 1 and 2, including the existing Ivan Toms and University House buildings retained, will be 800 beds and the net gain, after demolitions, is 788 beds.

A possible future Phase 3 of the precinct development could involve the demolition of the remaining University House barracks¹⁸, except for one and the insertion of another courtyard type residence of \pm 175 beds, ranging between one and two floors in height and consistent with the building typology of the approved Phase 1 and 2 proposals.

¹⁸ Refer to Conservation Framework – these buildings have been ascribed no heritage significance



Fig 23c Approved Avenue Road Residence SDP - Phases 1 & 2. (Source: MLH Architects & Planners)

• Forest Hill Infill Opportunities (Fig 23d and e)

Potential exists for an infill development for student housing in the Forest Hill sub precinct. MLH Architects & Planners have been commissioned to explore this opportunity, and, as further discussed in Section 9 of this report, opportunity exists to create more opportunities for well-located student residences by inserting two courtyard buildings in the existing very large open space within the existing residence area.

Approximately **592 additional beds** are possible in a new four storey development.



Figure 23d Forest Hill Infill Strategy – Proposed new double courtyard 4 storey building (Source: MLH Architects & Planners)



Fig 23e: Indicative diagram of student housing infill projects at Forest Hill (Source: Architects & Planners)

8.6 HEALTH SCIENCES CAMPUS

8.6.1 The key urban design and landscape interventions in the Health Sciences Campus include:

1. The improvement and enhancement of pedestrian linkages and cycle ways, particularly the continuation of the proposed 'north-south' "Lower Boulevard" which effectively terminates in this Precinct, and should be strengthened by the landscaping and pedestrian amenity of the connector links to the Main Road Corridor.

2. A site for a new Medical Sciences Building (Fig 24a) on the parking area adjacent to the M5/N2 ramps. Preliminary proposals for a new building on a site of approx. 1,800m² footprint; assuming 5 - 6 floors to achieve approximately 12,000m² and then a further two floors for parking (see Figure 21a below)

3. A Pedestrian Bridge is recommended to be investigated over the N2 to strengthen the potential of this Boulevard to become activated and to tie these discrete parts of Campus together (see Figure 24a below).



Figure 24a. Site for New Medical Sciences Building, and position of pedestrian link over N2

4. The ±420m² site at the intersection of Anzio and Falmouth Road, which currently accommodates the Animal Unit, has been earmarked for a new development of 6 floors to achieve a floor area of approximately 2 400m² (see Figure 24b below).



Buildings		UCT Buildings			
Curtilage (Urban)		Key Public Spaces			
Curtilage (Gree	en)	O Infill Amenity Sites			
en th South Pedestrian		Proposed Structural Landscape			
		Proposed Academic Infill Sites			
West Pedestria	n	Proposed Student Housing Infill / Indicative Sites			
d Pedestrian and Cycle nents		Number of floors excluding basements			
MPUS proposals	Sca	Figure:			

5. Each of the two ±270m² parking courtyards behind the Wernher & Beit North Building have been earmarked for three storeys of light-weight, contemporary infill development. Building plans have been approved by Heritage Western Cape and the City and construction will commence in 2021. This will yield a floor area of approximately 1 630m² (see Figure 24b below).



Figure 24b. New infill development on the northern portion of the Health Sciences Campus

6. To the east of this Precinct, vacant and underused land on the Main Road Corridor belonging to Provincial Government provide opportunities to develop further student residences on this important public transit corridor.

In general, the Health Sciences Campus lacks legibility, with no sense of arrival, or any form of 'heart'. The first phase of an urban design study for the entire precinct has recently been undertaken and upgrades to the public environment are proposed.

8.7 LAND ACQUISITION FOR LONG TERM GROWTH AND SUSTAINABILITY

Note - Possible land acquisition projects, land swap initiatives with National Government and PPP initiatives with Provincial Government, including for student housing projects are more fully described in the 'Master Plan' submitted to Department of Higher Education and Training (DHET) and are briefly referred to here. These land parcels are **not** yet within UCT's landholdings and hence, they are not included in the proposed Special Planning Area, the Development Framework or the Precinct Plans. No detailed development proposals or floor space allocation have been made at this stage.

Whilst the strategic infill development sites (for both academic space and student residences) identified in the Precinct Plans will cater for the growth needs of the University for decades to come, it is worth noting in this IDF that the University, as part of its long term growth management plan may negotiate with other organs of state to acquire strategic land and buildings, particularly within the Rosebank and Mowbray Residence Precincts in the future. Such longer term property acquisition will ensure that the University has sufficient land and buildings for greater flexibility for growth in the future; should the current 'Size and Shape' objectives be superseded. The University will need to do the following in earnest to advance these objectives:

- 1. Seek funding for strategic land acquisitions,
- 2. Pursue ongoing negotiations with Provincial and National Government Departments.
- 3. Recognise the long lead times to achieve the acquisition of State land and
- 4. Actively pursue and conclude the following strategic key land acquisitions for purposes of the University's long term expansion needs:
 - a. Trig Survey, Rhodes Avenue (National Government Department of Public Works); including the identification and acquisition of alternative land/buildings to effect a land swap. Property (Remainder Erf 30811) is 1,72 hectares in extent. The site is strategically located and will form a link between the Avenue Road student accommodation area to the north, and the Middle Campus to the south. It could provide ample and suitable accommodation for the UCT administrative functions and contains extensive parking. The relocation and consolidation of the university's administrative functions to this building will unlock buildings on Lower Campus for academic purposes.
 - b. Rhodes Recreation Ground, Cecil Road (City of Cape Town as custodians; land was gifted by CJ Rhodes by Notarial Deed of Donation to 'the citizens of Mowbray').
 To retain and enhance current use by means of an extension of the lease with the City of Cape Town, and the investigation of a possible recreational/sports related development on the upper terrace of land currently occupied by the Bowling Club.
 - c. De Meule, Rhodes Avenue (National Government Department of Public Works) To explore a land swap with DPW for the UCT property 'La Grotta' ¹⁹which is located adjacent to the Groote Schuur Estate Ministerial Housing precinct. The site is extremely well located to enhance the 'northern corridor', but given De Meule's very high heritage value, it is likely that stringent restrictions will be imposed and only a limited new development footprint (if any) will be possible. Nevertheless, the site has excellent potential to link to Trig Survey to the north-east and Welgelegen to the south (by re-instating the historic axis). It also provides linkage to the existing pedestrian bridge crossing over Rhodes Drive.
 - d. Properties belonging to Western Cape Government on **Main Road, Mowbray**, adjacent to Obz Square. These two properties have for some time been earmarked for student housing by UCT and the Department of Transport & Public Works.

¹⁹ <u>Update:</u> Both De Meule and La Grotta have suffered extensive fire damage on 18 April 2021.

8.8 PRECINCT LEVEL FLOOR AREA CALCULATIONS

8.8.1 Introduction

As per the requirements of the DMS identified in Annexure B, one of the requirements of the Package of Plans is to identify a "basket of permissible floor area."

As described in the DMS (Item 136) one of the key requirements of the Package of Plans, as described in 136(6) is that, "the City shall determine the total floor space or density permitted within the development which must be imposed as a condition of approval." This requirement was also highlighted in the pre-application consultations with the City.

This section of the report consequently provides the calculations of existing floor area (Annexure G deals in detail with the existing floor area calculations), proposed floor area as per the development framework proposals, and compares these figures to 'permissible floor area' as per the applicable zoning – CO1, CO2, GR4 or SR1. These calculations are presented below in summary form at Precinct level, rather than the entire Development Framework level, as that would be extremely unwieldy. Note that the figures for proposed infill accommodation in the two Residence Precincts, dealt with in the following section of this report, are also included in these tables.

8.8.2 Methodology

The tables following, presented per Precinct, employ the following methodology:

- The University's Properties and Services Department provided detailed schedules of each building on university land, and the internal gross assignable areas were captured to the spreadsheets on a building by building basis. (These are contained in Annexure G)
- In order to calculate existing floor space (bulk), 10% was added to the existing assignable areas.
- All information was compiled into Precinct level analysis –and directly related to the subdivision and consolidation diagrams which provided a net land area per Precinct.
- The total permissible floor space / bulk (total site area of each Precinct multiplied by the applicable floor area factors was calculated
- From this total permissible figure, the existing floor areas in Annexure F were subtracted.
- An estimate of the proposed infill floor areas as per the Development Framework/Precinct Plans is was indicated.
- A total floor space (existing + proposed) and floor area factor were then calculated.
- The net residual floor area per Precinct was then calculated once existing + proposed floor space had been subtracted from the permissible floor space.

8.8.3 General Findings

Given the large extent of land holdings of the University, and the relatively high permissible floor factor in the applicable use zones, combined with the relatively low development density on all the Campuses and Precincts, there is generally a high residual floor area left for the University to consider its longer term development, beyond the horizon of this plan (approximately 2030).

8.8.4 Existing, Proposed, and Residual Floor Areas per Precinct (Refer to Annexure G)

Rondebosch Upper Campus

•	Precinct extent	38,9980 ha zoned CO2
		2,1438 ha zoned OS2
		Total: 41,1418 ha
٠	Permissible floor space	CO2 portion (FF 2.0): 779,980 m ²
		OS2 portion (FF 0.0): 0m ²
		Total: 779,980 m²
•	Existing assignable floor area	approx. 216,100 m ²
•	Existing floor space	approx. 237,700 m²
٠	Current floor factor	0.60
٠	Proposed floor space	approx. 22,350 m ²
•	Total floor space	260,050 m²
٠	Proposed floor factor	0.66
•	Remaining floor space	519,930 m²

Rondebosch Middle and Lower Campus

•	Precinct extent	0,3767 ha zoned CO1 20,3245 ha zoned CO2
		Total: 20,7012 ha
٠	Permissible floor space	CO1 portion (FF 0.8): 3,014 m ²
		CO2 portion (FF 2.0): 406,490 m ²
		Total: 409,504 m²
٠	Existing assignable floor area	approx. 56,682 m²
•	Existing floor space	approx. 62,350 m²
٠	Current floor factor	0.30
٠	Proposed floor space	approx. 33,780 m ²
•	Total floor space	96,130 m²
•	Proposed floor factor	0.46
•	Remaining floor space	313,374 m²

Rosebank Residence Precinct

•	Precinct extent	11,4159 ha zoned CO2
		0,1125 ha zoned GR4
		Total: 11,5284 ha
•	Permissible floor space	CO2 portion (FF 2.0): 228,318 m ²
		GR4 portion (FF 1.5): 1,687 m ²
		Total: 230,005 m ²
•	Existing assignable floor area	approx. 36,233 m ²
•	Existing floor space	39,856 m²
•	Current floor factor	0.35
•	Proposed floor space	approx. 7,500 m ²
•	Total floor space	47,356 m²
•	Proposed floor factor	0.41
•	Remaining floor space	182,649 m²
∲ М	owbray Residence Precinct	
•	Precinct extent	7,0984 ha zoned CO2
		3,7607 ha zoned GR4 and GB1
		0,3235 ha zoned SR1
		Total: 11,1826 ha
•	Permissible floor space	CO2 portion (FF 2.0): 141,968 m ²
		GR4 and GB1 portion (FF 1.5): 63,932 m ²
		SR1 portion (FF 1.0): 3,235 m ²
		Total: 209,135 m ²
٠	Existing assignable floor area	approx. 51,378 m ²
٠	Existing floor space	approx. 56,516 m ² *
•	Current floor factor	0.50
•	Proposed floor space	approx 40 582m ²
•	Total floor space	97,098 m²
•	Proposed floor factor:	0.86
•	Remaining floor space	112,037 m ²
♦ Не	ealth Sciences Campus	

Health Sciences Campus

* Including the recently-completed Avenue Road Residence Phase 1

<u>Note</u>: The Remainder of Erf 27431-0-2 Cape Town (Groote Schuur Hospital and portion of Anzio Road), \pm 16, 8ha in extent, is excluded from the proposed Special Planning Area and the planning precincts.

8.8.5 Conclusion

The above tables comply with the requirements of the DMS by establishing the total permissible floor space (bulk) in each precinct, based on the applicable zoning and floor factor.

All proposed future development indicated in this Development Framework and Precinct Plans is well within the permissible floor area of the applicable zoning within each precinct.

Detailed Urban Design studies and Site Development Plans will further confirm the actual floor space per development, as well as compliance with the other restrictions of the base zone, as detailed in **Annexure B**.

9. STUDENT ACCOMMODATION FRAMEWORK



9.1 Objectives

- 1. To recognise that, whilst the key aims of UCT is education and research, the accommodation of students is a key factor in the university's vision and mission.
- Accordingly all opportunities to increase the student accommodation numbers to approximately 10,600 beds by 2030 (1/3rd of 32,000 enrolment target) is being proactively pursued in light of a critical shortage of affordable student accommodation.
- 3. To investigate the role of the private sector in assisting with meeting this objective, in line with the policy framework of the National Department.
- To recognise the goal of a liveable pedestrian-dominated Campus, and accordingly to ensure that student accommodation is as close as possible to the academic areas and transport nodes. (See Guiding Principle #1 equitable access to opportunities and activities). The importance of sports facilities close to student accommodation is also recognised.
- 5. To ensure that **safety and security** of students underpins the approach, as well as the creation of accommodation that meets the social and cultural needs of students.
- 6. To ensure that accommodation is **affordable**.

9.2 Student Residences – Capacity Analysis

Figure 25 below indicates the existing location and planned extensions to the student residences on campus, as described in the preceding sections of this report. The proposed acquisition of strategic public land on Main Road is also a central pillar to this objective. The following tables analyse the existing and potential capacity.

Note: These infill opportunities have already been described in the Development Framework, and Precinct Plan sections of this report. This section focuses on a quantitative analysis.



Table 9.1	Student Accommodation Assessment – Existing ²⁰
-----------	---

Man Pof	Existing Residences	
Map Ref		224
	Fuller Hall Smuts Hall	231
	Woolsack	235
		367
	Kopano Graca Machel	
	Baxter	382
-	Leo Marguard	419
	Tugwell	419
	Forest Hill	776
	Groote Schuur	59
10	Groote Schuur Residence	64
12	Kilindini	32
	Dullah Omar	72
	Obz Square	548
	Liesbeeck Gardens	434
	College House	119
15	Carinus House	363
	Clarendon House	264
	Glendower Residence	138
	Rochester	322
	University House	108
	Varietas	146
	Meulenhof	46
	Medical Residence	103
A	Sub Total 1st 2nd Tier	6073
	Third Tier	
	11 Woodbine Road	6
	8 Avenue Road	6
	Amalinda	5
	Edwin Hart	33
	Ex Air Residence	42
	Forest Hill F	42
	Harold Cressy	58
	Linkoping	4
	North Grange	49
10	Obs Square Post Grad	332
	Rondeberg Flats	36
	T B Davie Court	28
	J P Duminy Court	42
В	Sub Total Third Tier	683
		6756
	Total A + B	0/50

Table 9.1 indicates that there are currently 6,756 beds on Campus (including Health Sciences Campus). This calculates to a shortfall of 3,844 beds to meet the total target of 10,600 beds (i.e. approximately one third of students in residence of the projected 32,000 students)

²⁰ Information supplied by UCT P&S

Table 9.2	Student Accommodation Assessment – Possible Infill Opportunities

	LL DEVELOPMENT OPPORTUNITIES					The second second second second	L
POTENTIAL STUDENT ACCOMMODATION		ROSEBANK A		IOWBRAY RI	ESIDENCE P	RECINCTS	L
Map Ref	Infill Site	Site Area m ²	FAR	Floor Area	No. of Bed	s	
	Rosebank Precinct						
19	Welgelegen South	2 500	3	7 500	375	estimated	
	Mowbray Precinct						
20	Avenue Road Phase 1				500	per MLH	
21	Avenue Road Phase 2 (Edwin Hart rede	velopment)			140	net gain	
	173-33 (Edwin Hart demolition)						
22	Ivan Toms refurbish				39		
23	Avenue Road Phase 3 (University House	•)			109	net gain	
	21+175-87 (UH cottages & barracks demo	lished)					
24	Forest Hill Infill				592	per MLH	
25	Glen Res rebuild (incl. JP Duminy)				220	net gain	
	Sub Total - On-Campus Opportunities	5			1 975		
	Other - PGWC Main Road						
26	Obz 2				1 200	Estimated	
27	Obz 3				800	Estimated	
	Sub total Off Campus land				2 000		
	Approx Total Potential Student						
	Rooms	2 500		7 500	3 975		
	Current Beds (Table 9.1)				6 756		
	Proposed 30% of 32,000 students				10 600	beds target	
	Estimated requirements				3 844	current shortfall	
	Estimated potential above				3 975		
	Net surplus				131		

Table 9.2 indicates that, with the addition of the Provincial Government land on Main Road, a total of nearly 4,000 new residence beds can be achieved. However, existing on-campus infill opportunities will fall well short of the total beds required, emphasising the necessity of obtaining these Provincial properties for student accommodation and / or pursuing partnerships with private sector developers.

9.5 Land Acquisition for Student Housing Purposes

As indicated in the analysis above, it is necessary for the university to pursue the following two key land acquisitions for purposes of student accommodation (refer to Figure 26):

- a. Erf 28044 Main Road (Provincial Government ownership)
 This property is approximately 9,000 m² in extent, and is zoned as Community Zone (1) Local.
 Preliminary heritage advice is that the old Observatory Boys' High School building of the
 1930s will not encumber future development of this site. An HIA may however be required in due course, when a development proposal is available.
- Erf 30470 Main Road (Provincial Government ownership)
 This unregistered consolidation of 14 erven is approximately 6,600 m² in extent and is zoned
 General Residential (Subzone 4). It is largely vacant, but contains a row of seven modest
 1930s terrace houses on Grange Avenue. An HIA may be required in due course, when a
 development proposal is available.

Notes in support of this recommendation:

- These properties are located adjacent to the Main Road, and are therefore very close to the urban facilities and transport opportunities in this corridor, including Mowbray Station, as well as the vibrant Lower Main Road precinct. Residential densification is therefore strongly aligned with the City's policies.
- They are also very close to the Health Sciences Campus, and along with Forest Hill to the south, will form a vibrant core of student housing in close proximity to Hartleyvale/Two Rivers Urban Park.
- As indicated above, these properties will make a critical contribution towards achieving the target of an additional ±4,000 beds.



Figure 26. Provincial Properties for Acquisition for Student Accommodation Purposes.

9.6 Staff Housing

To acquire additional residential accommodation units for UCT staff in the next 15 years, particularly academic staff, research staff and research fellows.

10. TRANSPORTATION FRAMEWORK

The transportation proposals have been informed by two detailed specialist studies - the *Campus Access Management Plan (CAMP*) report prepared by Aurecon Engineers in 2014 and the *Parking Supply Management Plan*, prepared by Innivative Transport Solutions (ITS) Engineers in 2021.

10.1 Objectives

- To implement the **north-south 'Connector Streets'**, as well as the important **east-west connector streets** in order to more effectively link the Middle and Lower Campus northwards through the Corridor Precinct to the Health Sciences Campus, and the city beyond. The streets are to be friendly to pedestrians and cyclists, encompass mixed use, and should be of high environmental and landscape quality.
- To adopt and implement the Campus Access Management Plan and the Integrated Transport Strategy.
- To obtain approval for an appropriate **Parking Strategy** for Upper, Middle and Lower Campus, so as to avoid constant applications for parking departures for new infil developments and extensions to existing buildings on campus.

10.2 Connector Networks

- Implement a series of landscaped 'connector streets' to link Upper, Middle, and Lower Campus and the 'Corridor Precinct', which are easily used by pedestrians and bicycles
- Minimise the impacts of vehicular traffic circulation and investigate one way systems around and across Upper Campus

10.3 Public Transport and Non-Motorised Transport (NMT)

- Promote increased use of public transport and NMT modes
- Progressively shift the modal split between private and public transport, walking and cycling.
- Promote cycling and implement cycle networks
- Improve access to Park and Ride schemes, and improve the Ridelink system
- Develop effective links to remote sports facilities especially Hartleyvale
- Implement the North Terminus on Upper Campus as well as the proposed turning Circle at Ring/Rugby Road Intersection and at South End (at access to Rhodes Memorial)
- Investigate a reserved bus lane on Woolsack Drive.
- Investigate improved connectivity with the City's public transport system, including MyCiti bus and rail networks.

10.4 Parking Proposals in the CAMP Report

- Reduce the impact of private vehicles on Campus and promote a pedestrian dominated Campus
- Implement improved visitor and disabled parking availability and ensure optimal parking for staff
- Investigate structured parking options in appropriate positions
- Investigate options for periphery parking, including on SANParks land
- Implement pay-as-you go parking, including other parking funding models

- Increase remote parking, with increase in shuttle services if necessary
- Improve parking monitoring and implement availability signage
- Improve on and off-campus enforcement and management of parking







Figure 28. Proposed Cycle Network Source : Cycle Routes for the University of Cape Town. Pendulum Consulting (2014)

Author's Note: The cycle network needs to be extended along the proposed 'north-south' boulevard to Health Sciences Campus, proposed in this report; shown in red dashed line above.



Figure 29. Jammie Shuttle Bus Services Routes and North and South Termini (Source Aurecon) *Note: Locations of both the North and South Stops have been amended since this work.*

10.5 Current Parking Requirements

Item 137 of the City of Cape Town DMS prescribes parking, loading and infrastructure requirements.

For a 'Place of Instruction' (post-school level), the off-street parking reqirements in terms of the DMS are 0,1 bays per student, plus 1 bay per classroom and 1 bay per office in Standard Area.

- *'Standard areas'* are areas with standard parking needs, or where public transport is not specifically promoted or available.
- *'PT1 areas'* are areas where the use of public transport is promoted, but where the City considers the provision of public transport inadequate or where the use of motor vehicles is limited.
- *'PT2 areas'* are areas where the use of public transport is promoted and the City considers the provision of public transport good, or where the use of motor vehicles is very limited.

In terms of item 137(c) of the DMS, "the City may approve and shall maintain a plan or plans which indicate the areas it deems to be PT1 and PT2 areas. Such plans shall be recorded in Annexure C and may be amended from time to time upon approval by the City as required."

The City of Cape Town has mapped the PT1 and PT2 areas, but still has to take these maps through a public consultation process. Until the PT maps have been formally adopted, the parking requirements set for Standard areas are applicable to all areas in greater Cape Town, except within the Cape Town CBD Local Area Overlay Zone, which has a zero parking requirement.

Previously, in terms of the City's draft PT maps, the Health Sciences Campus and most of Mowbray Residence Precinct, including Forest Hill were PT2 areas, Rosebank Residence Precinct and Rondebosch Middle and Lower Campus were PT1 areas and Upper Campus was a Standard area, which is odd, given that Upper Campus is the main campus and is well-served by the Jammie Shuttle service.

It is proposed that the Health Sciences Campus and Mowbray Residence Precinct be designated as PT2 areas and that Rosebank Residence Precinct and Rondebosch Upper, Middle and Lower Campus be designated as PT1 areas.

10.6 Current Parking Demand

The 2021 Parking Supply Management Plan, prepared by ITS Engineers found that there are 3 650 bays in total on Upper, Lower & Middle Campuses combined, with the combined peak parking demand of 3 028 vehicles in formal parking areas. This increases to 3 634 assuming a 20% increase in parking demand to account for informal and/ or illegal parking, as well as variations in parking demand.

ITS found that the current parking demand ratio varies between **0.11 -0.13 bays/ person on Upper Campus** and **0.2- 0.24 bays/ person on Lower & Middle Campus**. In total, it results in a ratio of 0.12-0.14 bays/ person.

The City of Cape Town's parking requirement in the DMS s expressed as 0.1 bay per student and 1 bay per office and lecture theatre (in the Standard area). This converts to 0.25 bays per person, applying UCT's student/ staff ratio for the purpose of comparing with the UCT parking ratio. Accordingly, UCT's current parking ratio in formal parking areas, is approximately half of what is required in terms of the DMS.

10.7 Current Modal Split

The combined model split for persons entering and exiting Upper and Lower & Middle Campuses indicates that **UCT's combined modal split is in favour of sustainable forms of transport with 43% of persons using cars**. ITS found that the proposed developments will result in additional parking required and some proposals are in fact located on current at-grade parking areas, which will result in a loss in parking. The overall impact of increased parking demand and loss in parking have been assessed for each campus.

- The current parking ratio on Upper Campus is 0.12 bays / person. It is proposed that a parking ratio of 0.1 bays / person be approved, which is aligned with a 30% modal share of private transport; ie. UCT's future envisaged private modal share.
- The current parking ratio on Middle & Lower Campus is 0.33 bays / person. It is proposed that a parking ratio of 0.12 bays / person be achieved, which is also aligned with the future modal share envisaged for private vehicles.

As stated in the Parking Supply Management Plan (ITS, 2021), "achieving the desired modal shift away from private vehicle usage and over time, decrease the demand for parking per person, will require significant interventions towards sustainable transport operations by UCT. This includes the continuation of the Jammie Shuttle, promoting walking and cycling as transport modes on Campus, and to manage the provision of parking on Campus as excessive parking provision can further encourage private car usage."

10.8 Proposed Parking Ratios

A parking ratio of **0.1 bays / person** is proposed for Upper Campus ('Parking Zone 1') and **0.12 bays / person** for Middle & Lower Campus ('Parking Zone 2').



Figure 30. Map indicating the two proposed 'Parking Zones 1 and 2'.

The following mechanisms exist to manage parking in terms of the Municipal Planning By-law.

- Section 100(2)(I) of the MPBL allows for the City to impose conditions of approval on the IDF planning application, including on parking supply, based on the high-level development proposals submitted. The attached Parking Supply Management Plan provides a sound, evidence-based motivation for the proposed parking rates on Upper, Middle and Lower Campus. The nature and wording of such conditions will be informed by the public and departmental comments received during the comment process.
- **Consolidations** i.t.o. Section 42(f) or exempted consolidations i.t.o. Section 42(s), read with Section 67 of the MPBL. Numerous consolidations are included in the IDF application, (1) to remove cadastral anomalies and straddling of boundaries and (2) to enable a greater sharing of parking between the erven on each campus, thereby reducing the number of potential parking departure applications in the future.
- At building plan stage, application for **alternative parking supply** in terms of Item 138 of the DMS by means of a notarial tie of one or more properties and the registration of such notarial tie or servitude against such land at the Deeds Office to link the properties concerned for the purpose of parking.
- If, at building plan stage, despite the mechanisms above, the off-street parking requirements of Item 137 can still not be complied with, application can be made i.t.o. Section 42(b) for a **permanent departure**.

11. SPORTS FRAMEWORK

11.1 Review of Requirements – Shortfalls in Facilities

A review of the UCT sports facilities was conducted in 2013 by means of a comparative analysis of major sporting codes with UCT's 'peer' universities including Pretoria University, Rhodes, Kwazulu-Natal, Stellenbosch and Wits. At the time, the analysis was conducted on weighted averages based on a projected student population of 28,500 students. Should the university grow to 32,000 students, as anticipated in the IDF, the projected shortfalls below will be greater.

The following shortfalls at UCT were described for the following codes based on this analysis.

Sport Code	Shortfall
Cricket	4 cricket fields
Football	8 football fields
Hockey	3 hockey fields (need to be artificial turf)
Netball	4 netball courts
Rugby	6 rugby fields
Swimming	2 (1 indoor heated and 1 recreational)
Tennis	16 courts
Volleyball	4 volleyball courts

Note that there are 36 different sporting codes catered for at UCT, many of which are also significantly underprovided with facilities

It is recommended that ongoing investigations relating to the sharing of facilities with other sporting codes continues, as well as possible after hours use of surrounding schools' facilities.

11.2 Objectives

- 1. To recognise that UCT is significantly under-provided with sports facilities across a wide range of sporting codes when compared to other SA Universities, which leads to over-use and competition for limited space;
- 2. To recognise that sport forms an important part of student life, and therefore to strive to upgrade and improve the sporting amenities both on and off campus
- 3. To pursue the "FFACT" vision of the UCT Sports Council (Funding, Facilities, Admissions, Coaching and Transformation)
- 4. To pursue the Hartleyvale Precinct opportunity as shared space with the City of Cape Town and other interested sporting associations and surrounding schools, and to improve transport links to Hartleyvale from Campus.
- 5. To pursue other opportunities with the City of Cape Town, such as access to underutilised halls for sports use.
- 6. To pursue more efficient use of the Rhodes Recreation Ground, and to investigate a new small scale multifunctional sports centre on the bowling club area which can be shared with the surrounding community.



Figure 31. Sports Framework . Indicates location of existing facilities. The University is largely underprovided with sports facilities. The potential redevelopment at Hartleyvale represents the only opportunity to enhance the provision of sports facilities.



Figure 32. Optimal Solution for a Shared Sports Facility at Hartleyvale. (*Prepared by Davis Langdon, Ariya Projects and Gapp Architects September 2011*)

12. LANDSCAPE FRAMEWORK



12.1 Objectives

To implement landscape and open space improvements across all components of the Main Campus and the satellite campuses.

12.2 Compliance with Green Campus Policy Framework

This policy framework for responsible resource use and environmental sustainability for the University entailed an initial scoping exercise towards integrated sustainable planning, development and management and a comment period. The policy framework is based on a vision of shifting UCT towards a carbon neutral, sustainable institute, and places energy savings alongside water conservation and waste management and re-cycling as factors that, when combined, can contribute to a targeted reduction in carbon emissions - approaches that are increasingly accepted as good practice for universities and other institutions both internationally and in South Africa. The responsibility for the overall management and monitoring of a Green Campus Plan will rest with Properties and Services. However, the success of the plan will depend on its adoption across all sectors of the University. *(Source : Energy Management News, September 2008)*

12.3 Summary Recommendations

The recommendations summarised below include those from the Landscape Framework Plan (Oberholzer, December 2006), the UCT Heritage Park Management Framework (Laros, July 2012), the Upper Campus Landscape Plan (OvP, 2014 and the Draft Landscape Framework (UCT Properties and Services, June 2015).

- 1. Recognise the multifunctional role of landscape and open space which plays an ecological, an educational and a recreational role.
- 2. Budget for and implement a programme of 'greening' across campus to repair the environment and improve open space amenity.
- 3. Review and reinstate, where necessary, the parkland areas that provide the backdrop and transition to the upper slopes of Table Mountain, in particular above Ring Road and around the Reservoir. This requires close cooperation with SANParks and compliance with the City's Veldfire Related Planning Guidelines (2004), including firewise planning and urban design, the establishment and maintenance of an Asset Protection Zone and Fuel Modification.

- 4. Consider the creation of an arboretum.
- Ensure that open spaces between buildings are provided with shade, wind shelter, are safe, accessible to the disabled, and are pedestrian friendly, and to repair and replant these spaces. (Note the PPLC has prepared a detailed vertical and horizontal movement plan for Upper Campus)
- 6. Improve the campus landscape by implementing a concerted planting programme that includes a greater diversity of species, particularly local endemic species.
- 7. Implement planting with clear reference to historic themes and indigenous themes (deciduous trees being recommended to maximise winter sun).
- 8. Soften the intrusion of vehicles on Campus by restricting cars to the perimeter, and treating parking areas as attractive 'paved courts',
- 9. Ensure that storm-water is effectively and environmentally managed.
- 10. Restore and reinforce historical precincts and gardens, many of which are obscured, such as Welgelegen, Glenara, and Japonica Walk to maximise amenity and educational value, and investigate linkages by means of a heritage walking trail.
- 11. Ensure a consistent 'language' of street furniture and signage, particularly lighting and waste bins to avoid visual clutter; consider increased seating in outdoor spaces, and improved facilities for bicycles.
- 12. Implement bold planting of suitable trees, particularly around sports fields and along arterial routes such as Woolsack Drive, and implement tree belts along Rhodes Avenue to provide visual screening and an environmental buffer for noise and air pollution.
- 13. Prepare more detailed plans on a project basis for the landscape projects identified in the Oberholzer and OvP reports, including:
 - a. Improvements to the woodlands below Bremner and along Stanley Road, and improvements to the Bremner arrival forecourt.
 - b. Heritage landscape restoration around the Summer House, Glenara, Baxter, Welgelegen and Cadboll House, and the implementation of a heritage trail.
 - c. **Removal of vehicles and parking from University Avenue** and improvement of public space, particularly the forecourt between Smuts and Fuller.
 - d. Infill planting on avenues with shade trees, and attention to outdoor spaces with surface improvements, shade planting and seating.
 - e. Improvements to hard landscaping and the implementation of consistent materials and surfaces, as well as elements such as seating and lighting, included in a proposed landscape design manual and operational and maintenance manual.
- 14. At development stage, design informants, such as toad-friendly fencing and in particular the Cape Rain Frog (*Breviceps gibbosus*) habitat on Lower and Middle Campus, must be be taken into consideration.
- 15. To review the role of the various committees relating to the campus environment (including the Environmental Management Group and the PPLC) including the review and approval process for all landscape works, both large and small to ensure consistency and adherence to the overall principles and landscape policies.
- 16. To incorporate the Landscape Framework Plan as a critical 'layer' in the Development Framework for the University. An updated Landscape Framework Plan has been prepared by UCT's Properties & Services Department in 2018 and is currently being reviewed.



Figure 33. Landscape Framework Plan - composite diagram (UCT P&S, 2018)
13. LEGAL FRAMEWORK

Recommendations in terms of the Municipal Planning By-Law and Development Management Scheme, as well as the National Heritage Resources Act.

13.1 Approvals Required : City of Cape Town

It is recommended that this report, which constitutes the University's Development Framework, is approved by the City of Cape Town in terms of its Municipal Planning By-law, as read with the Development Management Scheme.

The following approvals are required:

- The approval of Rondebosch Upper Campus, Rondebosch Middle and Lower Campus, Rosebank Residence Precinct, Mowbray Residence Precinct and Health Sciences Campus as a Special Planning Area in terms of Item 136(1) of the Development Management Scheme (DMS).
- 2. Approval of the UCT Development Framework and Precinct Plans as components of a **Package of Plans** in terms of Item 136(3) of the DMS.
- 3. The **rezoning** of the following properties in terms of section 42(a) of the MPBL:
 - (a) A ±7 360m² portion of Erf 28366 Cape Town from Single Residential SR1 to Community Zone CO2;
 - (b) A ±17 770m² portion of Erf 28367 Cape Town from General Residential GR4 to Community Zone CO2;
 - A ±1 200m² portion of Erf 28369 Cape Town from General Residential GR4 to Community Zone CO2;
 - (d) A ±2 540m² portion of Erf 28365 Cape Town from General Residential GR4 to Community Zone CO2;
 - (e) Erf 166381 Cape Town (591m² in extent) from Transport Zone TR2 to Community Zone CO2.
- 4. The **subdivision** of the following properties i.t.o. Section 42(d) of the MPBL:
 - (a) Erf 28366 Cape Town into two portions;
 - (b) Erf 28367 Cape Town into two portions;
 - (c) Erf 28369 Cape Town into two portions;
 - (d) Erf 28365 Cape Town into two portions.
- 5. The **consolidation** of the following properties i.t.o. Section 42(f) of the MPBL:
 - (a) Remainder of Erf 44201-0-1, Remainder of Erf 44278, Remainder 1 of Erf 44201-0-2, Erf 30332 and Erf 30349 Cape Town;
 - (b) Portion 2 of Erf 44201-0-2, Erf 108992 and Erf 44217-0-2 Cape Town;
 - (c) Erf 10329 and Erf 44230 Cape Town;
 - (d) Portion 1 of Erf 28366, Remainder of Erf 28367, Erf 28368 and Portion 1 of Erf 28369 Cape Town;
 - (e) Remainder of Erf 28369 and Erf 30334 Cape Town;
 - (f) Remainder of Erf 28365, Erf 166381, Remainder of Erf 27431-0-1, Erf 27432 and Portion 2 of Erf 27431-0-2 Cape Town.

- 6. **Exemption** i.t.o. Section 42(s), read with Section 67(3) of the MPBL for the following subdivisions and consolidations:
 - (a) Subdivision of Erf 44201-0-1 Cape Town into two portions;
 - (b) Subdivision of Erf 44201-0-2 Cape Town into four portions;
 - (c) Subdivision of Erf 44278 Cape Town into two portions;
 - (d) Consolidation of Portion 1 of Erf 44201-0-1, Portion 1 of Erf 44278 and Portion 1 of Erf 44201-0-2 Cape Town;
 - (e) Consolidation Erf 44217-0-1, Erf 30803 and Erf 30804 Cape Town;
 - (f) Subdivision of Erf 27431-0-1 Cape Town into two portions;
 - (g) Subdivision of Erf 27431-0-2 Cape Town into three portions.

13.2 Approvals Required : Heritage Western Cape

In parallel with the City's consideration of the Package of Plans and the related approvals described above, it is recommended that Heritage Western Cape (HWC):

- 1. Endorses the Conservation Framework;
- 2. approves the **Inventory** and its gradings i.t.o. section 30 of the NHRA and
- 3. approves the **Heritage Agreement** in terms of section 42 the NHRA.

HWC is also requested to endorse the **Development Framework and Precinct Plans** contained in this report in principle, as the guiding conservation and development framework for the University's Rondebosch Upper Campus, Rondebosch Middle and Lower Campus, Rosebank Residence Precinct, Mowbray Residence Precinct and Health Sciences Campus,-in order that the City may fulfil its mandate set out in section 13.1 above.

As mentioned in Section 6 above, more detailed Precinct / Urban Design Plans and Site Development Plans will, in some intances, be required in the future and will be submitted to Heritage Western Cape for approval, as is standard in a Package of Plans process.

14. CONCLUSION

This report constitutes the Draft Integrated Development Framework (IDF) for the University of Cape Town's Main Campus and is submitted to the City of Cape Town, as a formal application in terms of the MPBL, and in parallel to HWC, as described above.

In the context of the rapidly changing terrain in education and technology, particularly in the context of shifting budget priorities and resource constraints, both human and capital, the fundamental objectives of 'Growth Management', being flexibility and the ability to respond to change, underpins the philosophy of this 'Package of Plans'.

Most importantly, the IDF speaks to the VISION of the University, as described in the Size and Shape Report, namely to be a "medium sized, research based, residential university". The plan has thus been founded on a growth trajectory to 32,000 students and the additional academic and administrative support staff required to support this growth. The realisation of this vision needs ongoing iteration and testing, not only in spatial terms, but in financial terms, to ensure appropriate allocations are made in the budget to ensure implementation of the recommendations of this report.

The IDF described in this report is therefore comprised of an interrelated set of frameworks, dealing with the overlapping, and often competing, aspects of development, conservation, transport, infrastructure, sports, recreation, housing, open space and the related, but critical components of management and budgeting. The IDF is therefore intended to provide the University with the range of tools that it needs to plan, develop, conserve and manage ongoing growth and change. It further provides, most importantly, the legal framework to provide more predictability to the University in that future approval processes, at Site Development Plan (SDP) and Building Plan level, will be more streamlined.

Whilst a considerable amount of infill development is proposed (\pm 72,130m² of academic floor space and \pm 48,000m² of residential development), these proposals remain well within the permissible development rights in terms of the current zoning, i.e. the IDF is, in the main, *not* making application for enhanced rights - it is guiding the location, nature and scale of infill development on campus.

The preparation of this report has relied on an extensive background of work by the Properties and Services Department of the University, as well as an extensive volume of various specialist reports. It has been the subject of extensive deliberation within the various management committees within the University, in particular the University Building and Development Committee.

It is hoped that the IDF will be instrumental in the realisation of the vision expressed in this report, namely that UCT strives to create a liveable, pedestrian dominated, well connected, legible, green and efficient campus, where its identity and unique sense of is celebrated, and to carefully expand and develop the university as a place of vibrancy, safety, accessibility, residency, high quality of open space and buildings, intricacy and human scale.

Derek Chittenden Cape Town December 2018 (updated September 2021)



ANNEXURES

ANNEXURE A : REFERENCES

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- 28. Urban Dynamics. Assessment of Spatial Expansion Opportunities for UCT. (August 2011)

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- 29. City of Cape Town Densification Policy (2012)
- 30. City of Cape Town Municipal Planning By-Law (2015, as amended)
- 31. Cape Town Municipal Spatial Development Framework (2018)
- 32. City of Cape Town Southern District Plan (2012)
- 33. City of Cape Town Table Bay District Plan (2012)
- 34. City of Cape Town TOD Strategic Framework (2016)
- 35. City of Cape Town Urban Design Policy (2013)

ANNEXURE B : RELEVANT EXTRACTS FROM MUNICIPAL PLANNING BY-LAW AND DEVELOPMENT MANAGEMENT SCHEME

Item 136 of the DMS : Package of Plans

(1) The general purpose of a package of plans is to provide for a mechanism to plan and manage the development of large or strategic urban development areas. It is a phased process of negotiation, planning and approvals, whereby increasing levels of planning detail are approved together with conditions for such approvals. Areas where the package of plans approach are used will be generally referred to as Special Planning Areas (SPA), and must be recorded in Annexure B.

(2) The City may require a package of Plans to be submitted for approval in respect of the following base zonings and overlay zonings: ...

- (a) General Residential Subzonings GR2-GR6;
- (b) Community Zoning 2: Regional;
- (c) General Business Subzonings;
- (d) Mixed Use Subzonings;
- (e) General Industry Subzonings;
- (f) Risk Industry Zoning; and
- (g) Subdivisional Area Overlay Zoning.

(3) A package of plans consists of the following components that are listed in a hierarchy from higher-order to lower-order plans, and the lower-order plans must be in compliance with the higher-order plans.

(4) The City may require all or any of the following components of the package of plans.

(a) Contextual framework:

A contextual framework lays down broad land use policy for the development and the surrounding area. It may include principles or heads of agreement summarising the general obligations of the City and the developer in relation to the development. The contextual framework may be prepared by the City, or by a land owner or development agency under supervision of the City, and may not be in conflict with a spatial development framework or structure plan approved by the City.

(b) Development framework:

A development framework identifies overall policy, broad goals, and principles for development within the development. The development framework identifies the range of uses, general spatial distribution of uses, major transport and pedestrian linkages, infrastructure and any limits within the development, including but not limited to density and floor space.

(c) Precinct plans:

Precinct plans apply to specific areas within the development framework that have common features, functional relationships or phasing requirements. There may be several precinct plans that make up a development. A precinct plan describes in more detail the development objectives and intentions for a specific area in the development, as well as principles for urban form, land use, pedestrian links, traffic movement, floor space and environmental management.

(d) Subdivision plans

Subdivision plans, if required, are processed in terms of this By-Law to establish new cadastral boundaries and to facilitate the transfer of land units. Subdivision plans may be approved at any stage after the development framework has been approved, and the provisions of sub-item (6) shall apply.

(e) Site development plans:

Site development plans depict more detailed design and development provisions for one or more land units within a development. These provisions may include, but are not limited to, details relating to land use, floor space, building lines, height, parking requirements, municipal services and landscaping, as well as details relating to the position and appearance of buildings, open space, pedestrian links and traffic movement. A site development plan may be required before or after a subdivision plan, and should provide for the information as required in item 123(2). *(See below)*

(f) Building plans:

Building plans contain detailed specifications as required by the National Building Act, and once approved by the City, authorise building work to be performed.

(5) The City may require that the area covered by a contextual framework shall extend beyond the land under consideration if, in its opinion, the proposed development will have a wider impact, and the City may determine the extent of such area.

(6) In approving any component of a package of plans, Council shall determine the total floor space or density permitted within the development which must be imposed as a condition of approval.

(7) The allocation of floor space shall take into account the carrying capacity of internal and external infrastructure including but not limited to roads and utility services, and any urban design principles approved by the City as part of a rezoning or contextual framework.

(8) The approved floor space may remain as 'floating floor space' assigned to the overall development for later allocation, or may be assigned to particular precincts or properties when a precinct plan is approved; and in either case shall be allocated in individual subdivisions or site development plans.

(9) When a package of plans is required in terms of this development management scheme, the relevant components shall be submitted to the City for its approval before any development on a land unit can commence, provided that:

(a) Approval shall not be refused if it is consistent with the development rules of a base zone, overlay zone, or condition of approval; but

(b) The City may require amendments of detail to the relevant component to address reasonable concerns relating to access, parking, architectural form, urban form, landscaping, environmental management, engineering services or similar concerns.

(10) The provisions as contained in item 123 shall apply with regard to site development plans.

(11) An approval granted for a component of a package of plans referred to in sub-item (4)(a) to (c) does not lapse.

Item 123 : Site Development Plans

This Item is of particular importance for the following stages of design of the IDF. Items of particular relevance to the University are highlighted.

(1) In addition to the zonings that specifically require a site development plan, the City may require a site development plan in respect of the following development types:

(d) developments in conservation areas;

.....

(g) major developments where there are concerns relating to urban form, heritage, traffic or spatial planning in general.

- (2) The City may require some or all of the following information for a site development plan:
 - (a) existing bio-physical characteristics of the property;
 - (b) existing and proposed cadastral boundaries;
 - (c) the layout of the property, indicating the use of different portions thereof;
 - (d) the massing, position, use and extent of buildings;
 - (e) sketch plans and elevations of proposed structures, including information about external finishes;
 - (f) cross-sections of the site and buildings on site;
 - (g) the alignment and general specification of vehicle access, roads, parking areas, loading areas, pedestrian flow and footpaths;
 - (h) the position and extent of private, public and communal space;
 - (i) typical details of fencing or walls around the perimeter of the land unit and within the property;
 - (j) electricity supply and external lighting proposals;
 - (k) provisions for the supply of water, management of stormwater, and disposal of sewage and refuse;
 - (I) external signage details;
 - (m) general landscaping proposals, including vegetation to be preserved, removed or to be planted, external paving, and measures for stabilising outdoor areas where applicable;
 - (n) the phasing of a development;
 - (o) the proposed development in relation to existing and finished ground levels, including excavation, cut and fill;
 - (p) statistical information about the extent of the proposed development, floor space allocations and parking supply;
 - (q) relationship of the proposed development to the quality, safety and amenity of the surrounding public environment;
 - (r) relationship of the proposed development to adjacent sites, especially with respect to access, overshadowing and scale;
 - (s) illustrations in a three-dimensional form depicting visual impacts of the proposed development on the site and in relation to surrounding buildings; and
 - (t) any other details as may reasonably be required by the City.
- (3) The City may require that the area covered by a site development plan shall extend beyond the site under consideration if, in its opinion, the proposed development will have a wide impact. The City may determine the extent of such area.

- (4) When required in terms of this development management scheme, a site development plan shall be submitted to the City for its approval before any development on a land unit may commence.
- (5) <u>A site development plan shall not be refused if it is consistent with the development rules of a base zoning, overlay zoning, or condition of approval.</u>
- (6) <u>The City may require amendments of detail</u> to the site development plan to address reasonable concerns relating to access, parking, architectural form, urban form, landscaping, environmental management, engineering services or similar concerns.
- (7) The following provisions shall apply with regard to site development plans:
 - (a) Development of the property shall be generally in accordance with an approved site development plan;
 - (b) If the City considers it necessary, a transport or traffic impact statement or assessment may be required in conjunction with a site development plan, the extent of which shall be determined by the City depending on the magnitude of the development;
 - (c) If the City considers it necessary, a stormwater impact assessment and/or stormwater management plan may be required in conjunction with a site development plan, the extent of which shall be determined by the City depending on the magnitude of the development;
 - (d) In circumstances where a site development plan is required in terms of this development management scheme, no application for building plan approval in terms of the National Building Act shall be granted by the City, unless a site development plan has first been approved; and
 - (e) An approved site development plan shall be considered as setting additional development rules applicable to the base zoning, and any application for amendment shall comply with the City's requirements for such amendments.
- (8) A site development plan will only lapse if replaced by another site development plan.

Chapter 6. General Residential Zonings

The general residential zonings are designed to provide a healthy, safe, and pleasant environment for urban living at higher densities, in order to promote efficient urban development, manage the pressure of urban growth and reduce urban sprawl. Different zonings and subzonings permit different levels of development intensity, particularly relating to height and floor space. Within these zonings there are controlled opportunities for home employment and low-intensity mixed-use development.

Part 2: General Residential Subzoning GR4 (items 40 - 45)

The GR zonings promote higher-density residential development, including blocks of flats. Different development rules apply to different subzonings, particularly with regard to height and floor space, in order to accommodate variations of built form. GR2 accommodates flats of relatively low height and floor space, GR3 and GR4 cater for flats of medium height and floor space, while GR5 and GR6 accommodate high-rise flats. The dominant use is intended to be residential, but limited mixed-use development is possible.

Item 40 Use of the property

The following use restrictions apply to property in these subzonings:

- (a) Primary uses subject to paragraph (c) are dwelling house, second dwelling, group housing, <u>boarding house</u>, guest house, <u>flats</u>, private road and open space. (author's emphasis)
- (b) Consent uses are utility service, <u>place of instruction</u>, place of worship, institution, hospital, place of assembly, home occupation, shops, hotel, conference facility, rooftop base telecommunication station and veterinary practice. (author's emphasis)

Item 41 Development rules for flats, boarding houses and hotels

The following development rules apply to flats, boarding houses and hotels:

- (a) <u>Coverage (GR4 subzone): 60%</u>
- (b) Floor factor (GR4 subzone): 1.5
- (c) Height (GR4 subzone)
 - (i) The maximum height of a building, measured from the existing ground level to the top of the roof, shall be 24m.
 - (ii) Earth banks and retaining structures are subject to item 126.
- (d) Building lines (GR4 subzone)

Street boundary building line

- Points up to 25,0 m above existing ground level : 4,5m
- Points over 25,0 m above existing ground level: N/a

Common boundary building line

- Points up to 25,0 m above existing ground level: 4,5 m or 0,6 H (0,0 m up to 15,0 m in height where intersecting a street boundary, for a distance of 18,0 m measured perpendicular from such street boundary)
- Points over 25,0 m above existing ground level: N/a (unless a departure permitted in terms of this development management scheme has been approved)
- (e) Parking and access

Parking and access shall be provided on the land unit in accordance with Chapter 15.

(f) Screening

The City may require screening in accordance with item 125.

(g) Wind mitigation

The City may:

(i) require an assessment of how wind will affect the proposed building and its surroundings; and

(ii) impose conditions to mitigate adverse wind effects

Item 44 Institution, place of instruction and place of assembly

The development rules which apply to an institution, place of instruction and place of assembly in item 47 [i.e. Community Zoning 1: Local (CO1)] shall apply to these uses in this [GR4] zoning; provided that where the institution, place of instruction or place of assembly is situated within a building which is also used for flats or a boarding house, then the coverage, height and building line requirements for the flats or boarding house shall apply.

Item 45A Development rule for all uses in GR2-GR6, except dwelling house and second dwelling

Vehicle access to the property must be from an adjacent road reserve of at least 9m wide.

Chapter 7. Community Zonings

Community zonings are intended for social uses directed at community needs, such as educational, religious, welfare or health services. Community buildings are important social and urban design focal points, and prominent architectural forms should be encouraged. There are two community zonings, with CO1 serving predominantly local community needs, and CO2, which caters for a wider community and potentially a <u>greater intensity of development</u>. (author's emphasis)

Part 2: Community Zoning 2: Regional (CO2) (items 48 - 49)

The CO2 zoning provides for a full range of institutional and community needs, which can be of a local or regional scale, and includes health and welfare as well as religious and educational services.

Item 48 Use of the property

The following use restrictions apply to property in this zoning:

- (c) Primary uses are institution, hospital, place of instruction, place of worship, place of assembly, rooftop base telecommunication station, filming and open space.
- (d) Consent uses are boarding house, conference facility, cemetery, crematorium, funeral parlour, freestanding base telecommunication station, wind turbine infrastructure, veterinary practice and urban agriculture.

Item 49 Development rules. The following development rules apply:

- (a) Floor factor. The floor factor on a land unit shall not exceed 2,0.
- (b) Coverage. <u>The coverage for all buildings on a land unit shall not exceed 60%.</u>
- (c) Height

(i) The maximum height of a building, measured from base level to the top of the roof, shall be 18 m, provided that there is no height limit for a bell tower, steeple, minaret or similar architectural feature designed to accentuate the significance of a building.

(ii) Earth banks and retaining structures are subject to item 126.

- (d) Street boundary building line. The street boundary building line is 5 m, subject to the general building line encroachments in item 121.
- (e) Common boundary building line. Common boundary building lines are 5 m, subject to the general building line encroachments in item 121.
- (f) Parking and access. Parking on and access to a property shall be provided in accordance with the provisions of Chapter 15.
- (g) Loading. Loading bays shall be provided on a land unit in accordance with item 144.
- (h) Screening. The City may require screening in accordance with item 125.
- (i) Noise mitigation. The City may require the owner to implement noise mitigation measures if excessive noise is created or likely to be created.

Item 126 Earth banks, retaining structures, support structures and similar devices

Without the approval of the City:

- (a) no earth bank, retaining structure, column, suspended floor, other device or series of such devices shall be constructed that enables a ground floor of a building to be raised more than 1,5 m above existing ground level, provided that where such raising takes place, the height thereof shall still be measured from existing ground level;
- (b) no earth bank or retaining structure used for holding back earth or loose rock, whether associated with a building or not, shall be constructed to a height of more than 2 m above existing ground level; and
- (c) no series of earth banks or retaining structures shall be constructed to a cumulative height of more than 2,5 m above existing ground level, unless an approximately level area of at least 2 m wide is incorporated between successive embankments or retaining structures for every 2 m of cumulative height.

ANNEXURE C : SCHEDULE AND MAP OF PROPERTIES TO BE INCLUDED IN THE SPECIAL PLANNING AREA

	l		967 973 m²
30	Erf 27432 Cape Town	Health Sciences Campus	31 960 m²
20		and Falmouth Road reserves	21.000 2
		(2) Groote Schuur Hospital, M3, Anzio	17 147 m²
		reserve	
29	Portion of Erf 27431 Cape Town ²¹	(1) Anatomy Building; parking; M3 road	13 539 m²
28	Erf 166381 Cape Town	Private Road	591 m²
27	Erf 28365 Cape Town	Lung Institute; N2/M3 road reserve	10 982 m²
26	Erf 30295 Cape Town	North Grange	1 634 m²
25	Erf 30306 Cape Town	Forest Hill F Block	1 282 m²
24	Erf 30334 Cape Town	Forest Hill G Block	3 607 m²
		Meulenhof	
23	Erf 28369 Cape Town	Forest Hill A, B, C, D, E Blocks;	31 084 m²
22	Erf 28367 Cape Town	Astroturf Hockey Field	17 986 m²
21	Erf 28368 Cape Town	Varietas	4 067m ²
20	Erf 28445 Cape Town	15 Osborne Road	502 m²
19	Erf 28495 Cape Town	8 Avenue Road	592 m²
18	Erf 28503 Cape Town	6 Avenue Road	653 m ²
17	Erf 28543 Cape Town	18 Rhodes Avenue	1 488 m²
-		M3 road reserve	
16	RE Erf 28366 Cape Town	Astroturf Hockey Field; parking area,	18 169m²
15	Erf 176381 Cape Town	Avenue Residence	42 029m ²
14	Erf 44230 Cape Town	ExAir	1 125 m ²
13	Erf 30804 Cape Town	Kopano and Soccer Field	23 330 m ²
12	Erf 30803 Cape Town	Kopano	5 640 m ²
11	Erf 32100 Cape Town	Welgelegen	24 764 m²
		Music, Baxter Theatre	
		Innovaton, The Cottage, College of	
		Old Admin Building, Research &	
10		Leo Marquard, Isaac Albow, Glenara,	102 27 1 111
10	Erf 103239 Cape Town	Graca Machel Hall; Baxter Hall; Tugwell,	102 271 m²
9		UCT Gym and Swimming Pool	42 334 111
<u>8</u> 9	Erf 108992 Cape Town Erf 44217 Cape Town	Woolsack Residence Cricket Oval; School of Dance; Kopano,	41 827 m ² 42 334 m ²
7 8	Erf 46041 Cape Town	Stanley Road parking area	$2 904 \text{ m}^2$
6	Erf 47242 Cape Town	Cambria House	1479 m^2
5	Erf 46339 Cape Town	La Grotta	$11138\mathrm{m}^2$
4	Erf 30349 Cape Town	Upper Campus parking P1	27 439 m ²
3	Erf 30332 Cape Town	Upper Campus Reservoir	38 635 m ²
2	Erf 44278 Cape Town	Upper Campus	3 813 m ²
2	Fref 44279 Core Town	reserve	2.012 m ²
	Erf 44201 Cape Town	Upper & Middle Campus, M3 road	443 933 m²

²¹ The portion of Erf 27431 to the north of Anzio Road, which accommodates the Groote Schuur Hospital and is ± 168 098m² in extent, is **excluded** from the proposed Special Planning Area.



ANNEXURE D : APPLICABLE TITLE CONDITIONS

Erven 30332, 30349 and 108992 Cape Town are subject to a notarial servitude i.t.o. the Rhodes Will, which requires that:-

"No buildings for suburban residences shall at any time be erected on the said property and any buildings which may be erected thereon shall be used exclusively for public purposes and shall be in a style of architecture similar to or in harmony with [Rhodes's] residence [Groote Schuur]."

This condition is interpreted to mean that sururban development shall not be allowed and that buildings shall be for public purposes (including education) and shall be dignified in architectural style. It does not impact on the high-level development proposals contained in the IDF and Precinct Plans.

Erven 44201, 44278, 46041, 103239, 30803, the western portion of Erf 176381, Erven 28366, 27431 and 27432 Cape Town are subject to a notarial servitude i.t.o. the Rhodes Will, which requires, inter alia, that:-

"All buildings that shall at any time in the future be erected on the land above described shall be of a public character and shall be used for the purpose of and associated with the development and extension of the life and work of the university; such buildings shall in architectural dignity preserve in every way possible, the spirit of the Rhodes Will."

This condition is interpreted to mean that buildings shall be for university purposes and shall be dignified in architectural style.

It is also required that:-

"All plans for any buildings proposed to be erected on any part of the land above described shall first be submitted for approval to the Rhodes Trustees in their preliminary sketch stage with particular reference to elevational treatment and no such buildings shall be proceeded with until such approval has been given."

The Rhodes Trustees have delegated this role to the President of the Cape Institute for Architecture (CIfA) and sketch plans for new buildings on the above properties are submitted to CIfA) for Architecture for endorsement. This condition does not impact on the IDF and Precinct Plans at this early planning stage, but is relevant at building plan stage.

Erf 30334 Cape Town is subject to a title condition, dating back to 1925:-

"That a space of not less than 4,72 metres in width be left in front of all lots fronting or abutting Osborne Road; such space may be utilised as gardens or forecourts" and

"That not more than one building be erected on anyone lot and that not more than half the area of anyone lot be built upon."

Since the 1960s, this property has accommodated Forest Hill G Block, a four-storey block of flats, and it is unclear how the construction of this multi-unit block of flats had been permitted, given these restrictive conditions. The property was purchased by UCT in 1991. <u>No</u> new or additional development is however envisaged on this property.

The south-eastern portion of **Erf 176381** (formerly Erf 28426) is subject to a condition requiring:-"That the property hereby transferred shall be used only for educational purposes, and that in the event of the land no longer being required for such purposes, the land shall revert to the Western Cape Government and the Transferee will be bound to retransfer the land to the Western Cape Government free of all costs and without payment of compensation for any improvements."

This portion currently accommodates the Edwin Hart Annex and will in the future accommodate Phase 2 of the approved Avenue Residence.

In addition to being subject to the requirements in terms of the Rhodes Will, mentioned above, several servitudes traverse the northern portion of **Erf 103239** on Lower Campus, where the title conditions state that-

"No buildings or filling shall be erected" and "no excavation or filling shall be carried out on the property without the prior consent of the City Electrical Engineer".



Extract from the SG Diagram for Erf 103239, with various servitudes indicated in red and green.

However, these servitudes are all circumvented by the existing buildings (Graca Machel, Baxter Hall, Leo Marquard and Tugwell) and they do <u>not</u> impact on any development proposals in terms of the IDF and relevant Precinct Plan.

The south-western portion of the Avenue Residence, consolidated **Erf 176381 Cape Town**, the former Erf 28426, depicted by figure s D E F on SG Diagram No.2735/2012 is subject to a reversionary clause imposed by the Western Cape Government, as amended in 2019:-

"That the property hereby transferred shall be used only for educational purposes, and that in the event of the land no longer being required for such purposes, the land shall revert to the Western Cape Government and the Transferee will be bound to retransfer the land to the Western Cape Government free of all costs and without payment of compensation for any improvements."

This condition is complied with, with the site currently accommodating the Edwin Hart student residence and will in the future accommodate the approved Phase 2 of the Avenue Residence.

By Notarial Tie Agreement No. K616/2004S between the City of Cape Town and the University of Cape Town, **Erf 28365 Cape Town** (the UCT Lung Institute) is notarially tied with **Erf 166381 Cape Town** (extension of George Street) held by University of Cape Town by Deed of Transfer No. T57223/2004.

A portion of **Erf 28365** is also subject to a 40 year leasehold in favour of the UCT Lung Institute, which commenced on 28 July 1999.

ANNEXURE E : PROPOSED REZONINGS

Fundamental to the calculation of residual floor area available for development in each Precinct making up the University's landholdings, and in accordance with the requirements of Item 136(6) of the DMS, it is necessary to amend and rectify a number of anomalies in the underlying base zones.

Once all land belonging to the university has been appropriately zoned, and the site areas of each precinct and sub-precinct calculated (after the required subdivisions and consolidations per Annexure E), the applicable floor area ratios can be applied.

The following diagrams, illustrated at Precinct level, indicate the existing zoning, and highlight those portions of land requiring rezoning, or rectifications to the zoning map.



E1 Rondebosch Upper Campus

Fig E1. Rondebosch Upper Campus. Existing Zoning

Most of Upper Campus is zoned Community Zone CO2; except for a portion of Erf 30332, which is zoned Open Space OS2.

An application for the rezoning of the 17 200m² lower portion of Erf 30332 (below the UCT dam) to Community Zone CO2, to facilitate the construction of a Jammie Shuttle 'North Stop' (Case ID 70504849), was approved by the City in April 2021.



E2 Rondebosch Middle and Lower Campus.

Fig E2. Rondebosch Middle and Lower Campus. Existing Zoning

Middle and Lower Campus are zoned Community Zone CO2, but the Summer House portion is, and will remain CO1.

E3 Mowbray Residence Precinct.



Fig. E3. Proposed Rezonings in Mowbray Residence Precinct

Summary

The Avenue Road sub-precinct is appropriately zoned Community Zone CO2.

Veritas (Erf 28368), North Grange (Erf 30295), most of Forest Hill (Erf 30306, Erf 30334 and portion of Erf 28369) are zoned General Residential GR4, but since they accommodate blocks of flats, which are not Primary or Consent Uses in the Community Zone CO2, it is proposed that they retain their GR4 zoning.

The portion of Erf 28369 fronting onto Main Road accommodates shops and offices (Meulenhof) and flats, which are not Primary or Consent Uses in the Community Zone CO2, and it is proposed that it retains its GB1 zoning.

Many of the individual UCT erven in the vicinity enjoy a variety of business and residential zonings, and it proposed that they retain their zoning.

The following rezonings are proposed:

- 1. The sliver of land adjacent to the M3, portion of Erf 28366 (±7 360m² in extent), which forms part of the Astroturf hockey field has a Single Residential SR1 zoning and it is proposed that it be rezoned to **Community Zone CO2**.
- Most of the Astroturf hockey field is currently zoned General Residential GR4 and since it is a university-related sports facility, it is proposed that portion of Erf 28367 (±17 770m² in extent) and a portion of Erf 28369 (±1 200m² in extent) be rezoned from GR4 to Community Zone CO2.

Several erven require subdivision to exclude areas covered by public roads. Refer to Table F4 and Figure F4. These roads to be ceded to City of Cape Town and assume a **Tansport Zone TR2** zoning.

E4 Health Sciences Campus



Fig. E4. Proposed Rezonings on Health Sciences Campus

Summary

The majority of this campus is appropriately zoned Community Zone CO2, with only the following rezonings required:

- 1. Rezone a portion of Erf 28365 (Lung Institute), ± 2 540m² in extent from General Residential GR4 to **Community Zone CO2**.
- 2. Rezone Erf 166381 (Private Road), 591m² in extent from Transport Zone TR2 to **Community Zone CO2**.

Several erven require subdivision to exclude areas covered by public roads. Refer to Table F5 and Figure F5. These roads to be ceded to City of Cape Town and assume a **Transport Zone TR2** zoning.

ANNEXURE F : PROPOSED SUBDIVISIONS AND CONSOLIDATIONS

The diagrams overleaf indicate the applications for subdivision in terms of Section 42(d) of the MPBL to provide for the subdivision of erven, primarily those that are traversed by metropolitan roads, the consolidation of certain erven in terms of Section 42(f) and, where applicable, exemptions in terms of Section 42(s) of the MPBL, read with Section 67(1) of the MPBL. These diagrams are a critical informant to the calculation of precinct areas, and thereby the calculation of permissible floor area allowed in terms of the underlying zoning. This will also allow for the cession of road reserves to the City of Cape Town.

Survey diagrams for the proposed subdivisions and consolidations will be submitted in due course.

Table F1 below and Figure F1 overleaf indicate the cadastral applications required on Rondebosch Upper Campus.

Table F1.Rondebosch Upper Campus

 Exempted subdivision of Erf 44201-0-2 Cape Town i.t.o. Section 42(s) of the MPBL, as contemplated in Section 67(1) of the MPBL into four portions: Remainder Erf 44201-0-2 (Upper Campus): Portion 1 (M3): Portion 2 (Middle Campus): Portion 3 (below the M3, adjacent to La Grotta): 	± 325 998m ² ± 14 056m ² ± 81 043m ² ± 6 891m ²
 2. Exempted subdivision of Erf 44201-0-1 Cape Town i.t.o. Section 42(s) of the MPBL, as contemplated in Section 67(1) of the MPBL into two portions: Remainder (Upper Campus): Portion 1 (M3): 	± 16 492m² ± 161m²
 3. Exempted subdivision of Erf 44278 Cape Town i.t.o. Section 42(s) of the MPBL, as contemplated in Section 67(1) of the MPBL into two portions: Remainder (Upper Campus): Portion 1 (M3): 	± 3 580m² ± 232m²
 4. Consolidation i.t.o. Section 42(f) of the MPBL of the following land parcels: Remainder Erf 44201-0-1 Cape Town (Upper Campus): Remainder Erf 44278 Cape Town (Upper Campus): Remainder Erf 44201-0-2 Cape Town (Upper Campus): Erf 30332 Cape Town (Reservoir site): Erf 30349 Cape Town (Parking P1 & portion of Sports Centre): Total: 	± 16 492m ² ± 3 580m ² ± 325 998m ² ± 38 635m ² ± 27 438m ² ± 412 143m ²
 5. Exemption i.t.o. Section 42(s) of the MPBL, as contemplated in Section 67(1) of the MPBL, for the consolidation of the following land parcels: Portion 1 of Erf 44201-0-2 Cape Town (M3): Portion 1 of Erf 44278 Cape Town (M3): Portion 1 of Erf 44201-0-1 Cape Town (M3): Total: This consolidated property (proposed M3 road reserve) to be ceded to the City. 	± 14 056m ² ± 232m ² ± 161m ² ± 14 449m²



Table F2 below and Figure F2 overleaf indicate the required cadastral applications on Rondebosch Middle and Lower Campus.

Table F2. Rondebosch Middle and Lower Campus

1. Consolidation i.t.o. Section 42(f) of the MPBL of the following land parcels:		
Portion 2 of Erf 44201-0-2 Cape Town (Middle Campus):	± 81 213m²	
Erf 108992 Cape Town (Woolsack Residence):	± 41 829m²	
• Erf 44217-0-2 Cape Town (south of Woolsack Drive):	± 31 612m²	
Total:	± 154 654m²	



Table F3 below and Figure F3 overleaf indicate the required cadastral applications in Rosebank Residence Precinct.

Table F3.Rosebank Residence Precinct

 Exemption i.t.o. Section 42(s) of the MPBL, as contemplated in Section 67(1) of the MPBL, for the consolidation of the following land parcels, straddled by existing buildings, to form Sub-Precinct 'A': 		
 Erf 44217-0-1 Cape Town (north of Woolsack Drive): Erf 30803 Cape Town: Erf 30804 Cape Town: 	± 10 715m ² ± 5 640m ² ± 23 330m ²	
Total:	± 39 685m²	
 The consolidation i.t.o. Section 42(f) of the MPBL of the following land parcels to form Sub-Precinct 'B': 	+ 40 700m ²	
 Erf 103239 Cape Town (north of Woolsack Drive): Erf 44230 Cape Town (ExAir): 	± 49 708m² ± 1 125m²	
Total:	± 50 832m²	



Table F3 below and Figure F4 overleaf indicate the required cadastral application in Mowbray Residence Precinct.

Table F4.Mowbray Residence Precinct

 The subdivision of Erf 28366 Cape Town i.t.o. Section 42(d) of the MPBL into two portions, to exclude the M3, resulting in the following land parcels: Portion 1 (portion of hockey field): Remainder (M3): Remainder of Erf 28366 Cape Town (M3) to be ceded to the City. 	± 6 854m² ± 11 230m²
 2. The subdivision of Erf 28367 Cape Town i.t.o. Section 42(d) of the MPBL into two portions, to exclude the M3, resulting in the following land parcels: Portion 1 (M3): Remainder (portion of hockey field): Portion 1 of Erf 28367 (M3) to be ceded to the City. 	248m ² ± 17 739m ²
 3. The subdivision of Erf 28369 Cape Town i.t.o. Section 42(d) of the MPBL, into two portions: Portion 1(portion of hockey field): Remainder (Forest Hill): 	± 1 117m² ± 31 083m²
 4. The consolidation of the following land parcels i.t.o. Section 42(f) of the MPBL to form Sub-Precinct 'A': Portion 1 of Erf 28366 Cape Town (portion of hockey field): Remainder of Erf 28367 Cape Town (portion of hockey field): Erf 28368 Cape Town (Varietas): Portion 1 of Erf 28369 Cape Town: Total: 	2 ± 6 854m ² ± 17 739m ² ± 4 067m ² ± 1 117m ² ± 29 777m²
 5. The consolidation of the following land parcels i.t.o. Section 42(f) of the MPBL to form Sub-Precinct 'B': Remainder of Erf 28369 Cape Town (Forest Hill): Erf 30334 Cape Town (Forest Hil G Block): Total: 	2 ± 31 083m ² ± 3 606m ² ± 34 689m²



Table F5 below and Figure F5 overleaf indicate the required cadastral applications on the Health Sciences Campus.

Table F5. Health Sciences Campus

1	The subdivision of Erf 2020E Cone Town it a Costion (2/d) of the MDDL into	
1.	The subdivision of Erf 28365 Cape Town i.t.o. Section 42(d) of the MPBL, into	
	two portions:	$\pm 2.010 m^2$
	Portion 1 (Lung Institute):	± 3 019m² ± 7 962m²
	Remainder (M3):	± / 962111-
	Remainder of Erf 28365 (proposed M3 road reserve) to be ceded to the City.	
2.	The exempted subdivision of Erf 27431-0-1 Cape Town i.t.o. Section 42(s) of the	
	MPBL, as contemplated in Section 67(1) of the MPBL into two portions:	
	• Portion 1 (M3):	± 2 660m²
	Remainder (Anatomy and parking):	± 14 521m²
	Portion 1 of Erf 27431-0-1 (proposed M3 road reserve) to be ceded to the City.	
3.	The exempted subdivision of Erf 27431-0-2 Cape Town i.t.o. Section 42(s) of the	
	MPBL, as contemplated in Section 67(1) of the MPBL, into three portions:	
	 Remainder (portion of Groote Schuur Hospital & Anzio Road): 	± 168 098m ²
	 Portion 1 (portion of Falmouth Road & Anzio Road): 	± 2 932m ²
	 Portion 2 (straddled by Medical Residence): 	± 607m²
	Portion 1 of Erf 27431-0-2 (Falmouth & Anzio Road) to be ceded to the City.	
4.	The consolidation of the following land parcels i.t.o. Section 42(f) of the MPBL in	
	order for the entire Health Sciences Campus to form one property:	
	 Portion 1of Erf 28365 Cape Town(Lung Institute): 	± 3 019m²
	Erf 166381 Cape Town (private road):	± 596m²
	 Remainder of Erf 27431-0-1 Cape Town(Anatomy and parking): 	± 14 521m ²
	• Erf 27432 Cape Town:	± 31 960m ²
	 Portion 2 of Erf 27431-0-2 Cape Town (straddled by Medical Res): 	± 607m²
	Total:	± 50 703m²

Note: The Remainder of Erf 27431-0-2 Cape Town (Groote Schuur Hospital and portion of Anzio Road), ± 168 098m² in extent, is excluded from the proposed Special Planning Area and the planning precincts.



ANNEXURE G : FLOOR AREA CALCULATIONS PER PRECINCT

1. Introduction

As per the requirements of the DMS identified in Annexure B, one of the requirements of the Package of Plans is to identify a "basket of permissible floor area."

As described in the DMS (Item 136) one of the key requirements of the Package of Plans, as described in 136(6) is that, "the City shall determine the total floor space or density permitted within the development which must be imposed as a condition of approval." This requirement was also highlighted in the pre-application consultations with the City.

This section of the report consequently provides the calculations of existing floor area deals in detail with the existing floor area calculations), proposed floor area as per the development framework proposals, and compares these figures to 'permissible floor area' as per an assumed zoning for all UCT land. These calculations are presented below in summary form at Precinct level, rather than the entire Development Framework level, as this would be extremely unwieldy.

Note that the figures for proposed infill accommodation in the Residence Precincts, dealt with in the following section of this report, are also included in these tables.

2. Methodology

The tables following, presented per Precinct, employ the following methodology:

- The University's Properties and Services Department provided detailed schedules of each building on university land, and the internal gross assignable areas were captured to the spreadsheets on a building by building basis.
- Existing floor space (bulk) was calculated by adding 10% to the existing assignable areas.
- All information was compiled into Precinct level analysis –and directly related to the subdivision and consolidation diagrams which provided a net land area per Precinct.
- The total permissible floor space / bulk (total site area of each Precinct multiplied by the applicable floor area factors was calculated
- From this total permissible figure, the existing floor areas were subtracted.
- An estimate of the proposed infill floor areas as per the Development Framework/Precinct Plans was indicated.
- A total floor space (existing + proposed) and floor area factor were then calculated.
- The net residual floor area per Precinct was then calculated once existing + proposed floor space had been subtracted from the permissible floor space.

3. General Findings

Given the large land holdings of the University, and the relatively high permissible floor area factor, allied to the relative low development density on all the Campuses and Precincts, there is generally a high residual floor area left for the University to consider its longer term development, beyond the horizon of this Development Framework (approximately 2030).

4. SUMMARY - Existing, Proposed, and Residual Floor Areas per Precinct

Refer to following Annexures for detailed assessments of consolidated precinct area, and existing development.

<u>Note</u>: The Remainder of Erf 27431-0-2 Cape Town (Groote Schuur Hospital and portion of Anzio Road), \pm 16, 8ha in extent, is excluded from the proposed Special Planning Area and the planning precincts.

Rondebosch Upper Campus

• Proposed floor factor

•

Remaining floor space

*

٠	Precinct extent	38,9980 ha zoned CO2
		2,1438 ha zoned OS2
		Total: 41,1418 ha
٠	Permissible floor space	CO2 portion (FF 2.0): 779,980 m ²
		OS2 portion (FF 0.0): 0m ²
		Total: 779,980 m²
٠	Existing assignable floor area	approx. 216,100 m ²
٠	Existing floor space	approx. 237,700 m²
•	Current floor factor	0.60
•	Proposed floor space	approx. 22,350 m²
•	Total floor space	260,050 m²
٠	Proposed floor factor	0.66
•	Remaining floor space	519,930 m²
Rc	ndebosch Middle and Lower Campus	
•	Precinct extent	0,3767 ha zoned CO1
		20,3245 ha zoned CO2
		Total: 20,7012 ha
٠	Permissible floor space	CO1 portion (FF 0.8): 3,014 m ²
		CO2 portion (FF 2.0): 406,490 m ²
		Total: 409,504 m ²
٠	Existing assignable floor area	approx. 56,682 m ²
٠	Existing floor space	approx. 62,350 m²
٠	Current floor factor	0.30
٠	Proposed floor space	approx. 33,780 m²
•	Total floor space	96,130 m²

0.46

313,374 m²

Rosebank Residence Precinct

•	Precinct extent	11,4159 ha zoned CO2	
		0,1125 ha zoned GR4	
		Total: 11,5284 ha	
٠	Permissible floor space	CO2 portion (FF 2.0): 228,318 m ²	
		GR4 portion (FF 1.5): 1,687 m ²	
		Total: 230,005 m ²	
•	Existing assignable floor area	approx. 36,233 m ²	
•	Existing floor space	39,856 m²	
•	Current floor factor	0.35	
•	Proposed floor space	approx. 7,500 m ²	
•	Total floor space	47,356 m²	
•	Proposed floor factor	0.41	
•	Remaining floor space	182,649 m²	
♦ N	Nowbray Residence Precinct		
•	Precinct extent	7,0984 ha zoned CO2	
		3,7607 ha zoned GR4 and GB1	
		0,3235 ha zoned SR1	
		Total: 11,1826 ha	
•	Permissible floor space	CO2 portion (FF 2.0): 141,968 m ²	
		GR4 and GB1 portion (FF 1.5): 63,932 m ²	
		SR1 portion (FF 1.0): 3,235 m ²	
		Total: 209,135 m ²	
•	Existing assignable floor area	approx. 51,378 m ²	
•	Existing floor space	approx. 56,516 m ² *	
•	Current floor factor	0.50	
•	Proposed floor space	approx 40 582m ²	
•	Total floor space	e 97,098 m²	
•	Proposed floor factor:	0.86	
•	Remaining floor space	112,037 m²	
• н	ealth Sciences Campus		

Health Sciences Campus

•	Precinct extent	4,6278 ha
•	Permissible floor space (FF 2.0)	92,556 m²
•	Existing assignable area	approx. 53,038 m²
•	Existing floor space	approx. 58 340 m²
•	Current floor factor	1.26
•	Proposed floor space	approx. 16,000 m²
•	Total floor space	74,340 m²
•	Proposed floor factor	1.60
٠	Remaining floor space	18,216 m²

* Including the recently-completed Avenue Road Residence Phase 1

Note:

The above tables comply with the requirements of the DMS by establishing the total permissible floor space (bulk) in each precinct, based on the applicable zoning and floor factor.

All proposed future development indicated in this Development Framework and Precinct Plans is well within the permissible floor area of the applicable zoning for each precinct.

Detailed Urban Design studies and Site Development Plans will further confirm the actual floor space per development, as well as compliance with the other restrictions of the base zone, as detailed in Annexure B.
RONDEBOSCH UPPER CAMPUS G1.

Rondebosch Upper Campus					
Erf #	Extent	Building Code	Building Name	Int. Gross Area (m ²)	
Properties to be consolida	ated	COUE		Alea (III)	
•		01460	Animal House	126	
		01190	Arts Block	4424	
		01180	Beatie Building	7466	
		01520	(Botany) Glass House	118	
		01170	Centlivres	659	
		01540	Chemical Engineering Building	8218	
		01130	Computer Science Building	4989	
		01500	Educare Centre	505	
		01080	Electrical & Mechanical Engineering	5028	
		01030	Environmental & Geographical Science	322	
		01230	Fuller Hall	4974	
		01440	G.H. Menzies Building	1261	
		01070	Geological Sciences Building	338	
		01310	Greenhouse	201	
		01210	H.W. Pearson Building	4968	
		01490	Harry Oppenheimer Institute	1499	
		01040	Hoerikwaggo	2944	
		Building Code Building Name 01460 Animal House 01190 Arts Block 01180 Beatie Building 01520 (Botany) Glass House 01540 Centlivres 01540 Chemical Engineering Building 01500 Educare Centre 01030 Environmental & Geographical Science 01230 Fuller Hall 01440 G.H. Menzies Building 01700 Geological Sciences Building 01710 Gerenhouse 01210 H.W. Pearson Building 01440 Harry Oppenheimer Institute 01400 Hoerikwaggo 01370 Immelman Building 01450 Leslie Commerce Building 01450 Leslie Commerce Building 01450 Leslie Social Science Building 01450 Leslie Social Science Building 01450 Leslie Commerce Building 01450 Leslie Social Science Building 01450 Leslie Social Science Building 01500 Molecular Biology Building	5570		
			9		
44201-A	325283			724	
				842	
				819-	
				807	
				1622	
				505	
				1555	
				839	
				199	
		December 198, no. 5 had		150	
				177	
				72	
				690	
			Building NameOrdeoAnimal House01460Animal House01190Arts Block01190Arts Block01180Beatie Building01520(Botany) Glass House01170Centlivres01540Chemical Engineering Building01130Computer Science Building01300Educare Centre01080Electrical & Mechanical Engineering01030Environmental & Geographical Science01230Fuller Hall01440G.H. Menzies Building01310Greenhouse01210H.W. Pearson Building01440Greenhouse01210Harry Oppenheimer Institute01400Hoerikwaggo01370Immelman Building01510Information Centre01100J.W. Jagger Library01110Sarah Baartman Hall01290John Day Building01400Leslie Commerce Building01200Maths Building01320Nursery01120Otto Beit Building0150PD Hahn Building0150PD Hahn Building01200Snape Lecture Building01530Steve Biko Students Union01430Students Union Extension (Hlanganani)01440Sports CentreNo BuildingsNo Buildings01250Geological Science Extension Building01450Sports CentreNo BuildingsNo Buildings01440Shuents Union Extension (Hlanganani)01440 <td>519</td>	519	
				113	
				239	
				566	
				190	
				1481	
30349	38635	01120		1-01	
30332	27439	-			
		01250		1085	
44201-1-A	16491			2840	
				7212	
44278-A	3570				
Consolidation Extent	411418			216110	
Precinct Extent	411418			216110	

	F	Rondebos	ch Middl	e and Lower Campus	
Sub Precincts	Erf #	Extent	Building Code	Building Name	Int. Gross Area (m ²)
Properties t	o be Consolidate	d			
			8130	All Africa House	3676
			8010	Bremner Building	3779
	44201-B	81207	8150	Masingene	3078
	44201 0	01207	8120	Summer House	243
			8160	School Of Economics Building	7478
			8070	Wilfred and Jules Kramer	17884
Α			8060	The Woolsack	350
~	108992	41827	8090	Woolsack Courts	1915
	100552	41027	8100	Woolsack Pavilions	2145
			8110	Woolsack Colonnade	C.T. C.T.
	44217 1	44217-1 31619 2060	2050	Up-Along - Ballet Wardrobe	105
			2060	Ballet Classroom	105
	44217-1		2110	Ballet School	1510
			8030	Cricket Pavilion	379
Consolidat	ion Extent	154653			43248
			2660	Baxter Theater	5321
			2220	C Sharp Cottage	187
			2720	Common Room (The Cottage)	12
			2030	Glenara	667
В	103239-RE	52360	2240	College of Music & Library	4806
			2230	Old Admin Building	651
			2080	Research & Innovation House	509
			2210	Strubenholm College of Music	1281
			2020	The Cottage	264
Remaining	erven extent	52360			13434
Precinct Ex	tent	207012			56682

G2. RONDEBOSCH MIDDLE AND LOWER CAMPUS

ROSEBANK RESIDENCE PRECINCT G3

		Rose	bank Res	idence Precinct	
Sub Precincts		Extent	Building Code	Building Name	Int. Gross Area (m ²)
А	32100	24764	08050	Welgelegen	583
Extent		24764			
	30803	5640	08040	Kopano Residence	5180
В	30804	23330	0L060	Welgelegen Gateway (Soccer Field)	0
Б	44017.0	10715	02520	Gym & Scuba Club	783
	44217-2	-2 10715	08080	Squash Courts	521
Consolidatio	on Extent	39686			6484
			02500	Baxter Hall	3703
			02540	Burnage	410
	103239	49709	02740	Graca Machel Hall	10180
С	103239 49	49709	02550	Isaac Albow Building	619
			02680	Leo Marquard Hall	6667
			02670	Tugwell Hall	6641
	44230	1125	05280	Exair	946
Consolidatio	on Extent	50834			29166
Precinct Ext	ent	115284			36233

G4 MOWBRAY RESIDENCE PRECINCT

Mowbray Residence Precinct						
Sub Precincts	Erf #	Extent	Building Code	Building Name	Int. Gross Area (m ²)	
			05110 - 05240	University House Complex	2789	
				05320	Ivan Toms Building	1194
Α	176381	42029	05330	Edwin Hart Annex	1759	
				Avenue Residence (Phase 1)	9570	
				Avenue Residence Dining Hall	1356	
Consolidati	on Extent	42029			16668	
	28366- B	6902	05530	Hare's Sportsfield Clubhouse	149	
В	28367-A	17986	05710	Hare's Hockey Fields (No buildings)	0	
	28368	4067	05980	Varietas Residence	3087	
Consolidati	on Extent	28955			3236	
	28369		05350	Meulenhof Building	3358	
			05910	Forest Hill Flats Block A	3139	
с		31084	05920	Forest Hill Flats Block B	4677	
C		28369 31	31084	05930	Forest Hill Flats Block C	4412
				05940	Forest Hill Flats Block D	4468
			05950	Forest Hill Flats Block E	3258	
	30334	3607	05970	Forest Hill Flats Block G	3078	
Consolidati	on Extent	34691			26390	
	30306	1282	05960	Forest Hill Flats Block F	1736	
	30295	1634	05990	North Grange	2171	
D	28543	1488	05490	18 Rhodes Ave	463	
U	28503	653	05250	6 Avenue Rd	206	
	28495	592	05650	8 Avenue Rd	291	
	28445	502	05030	15 Osborne Rd	217	
Remaining	Erven Extent	6151			5084	
Precinct Ext	tent	111826			51378	

HEALTH SCIENCES CAMPUS G5.

	Health Sciences Campus						
Sub Precincts	Erf #	Extent	Building Code	Building Name	Int. Gross Area (m ²)		
Properties to	roperties to be Consolidated						
	28365 - A	3022	03190	Lung Institute	2518		
	27431-1 -A	10103	03010	Anatomy Building	9311		
	166381	591		Private Road	0		
	27431-2-A	602		Partial Buildings	0		
			03030	Health Economics Unit (MWB)	229		
	27432		03040	Wernher & Beit South	6245		
			03050	Wolfson Pavillion	1555		
А			03070	Barnard Fuller	4372		
			03080	Wernher & Beit North	4370		
		31 960	03090	Falmouth Building	8205		
		27432 31 960-	03100	Chris Barnard Building	7590		
			03120	Animal Unit	493		
			03130	Medical Library	3582		
			03140	JS Marie (Mortuary Building)	687		
			03150	Medical Residence	3724		
			03160	Braemar Cottage	157		
Consolidatio	on Extent	46278			53038		
Precinct Ext	ent	46278			53038		



University of Cape Town Integrated Development Framework: Parking Supply Management Plan Rondebosch, Western Cape

September 2021



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SUMMARY SHEET

Report Type	Parking Study
Title	University of Cape Town Integrated Development Framework: Parking Supply Management Plan
Location	Rondebosch, Western Cape
Client	University of Cape Town, represented by Mr Nigel Haupt
Reference Number	ITS 4226
Project Team	Lynne Pretorius, Pr Eng
Contact Details	Tel: 021 914 6211
Date	September 2021
Report Status	FINAL
File Name	G:\4226 UCT IDF Parking Plan\12 Report\Draft\4226-UCT IDF-Parking Plan v5-Ip-20210922.docx

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ANNEXURES

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1 INTRODUCTION

1.1 Background

In response to the need for increasing the education opportunities available at institutions of higher education, the University of Cape Town (UCT) commissioned an Integrated Development Framework¹ (IDF) that outlined the development opportunities towards accommodating approximately 32 000 students, as well as about 10 600 student beds. In support of this, the City of Cape Town requires a parking management response due to the expected increase in parking demand.

Innovative Transport Solutions (ITS) was appointed in 2020 to develop a Parking Plan for UCT in response to the IDF. This was based on transport surveys that were undertaken in 2019 as part of the Transport Study for UCT Upper, Lower and Middle Campus². The aim of the Transport Study was to determine the parking demand and supply on these Campuses, along with the trip generation rate and transport modal split. The findings of this investigation indicated that UCT has a modal split in favour of sustainable modes of transport indicating that about 2/3 of people on Upper Campus using the Jammie Shuttle, walking, cycling or motorbikes. Accordingly, the parking demand is already less that what is expected.

1.2 Objective

The purpose of this report is as follows:

- Describe the parking capacity and demand on the various campuses
- Determine the current parking rate and compare with the current parking requirements of the City of Cape Town
- Determine the future parking needs of UCT with the progressive implementation of the various development initiatives.
- Determine an adequate parking rate for UCT's Upper, Middle and Lower Campuses that take cognisance of the modal split in favour of more sustainable modes of transport

1.3 Scope of Investigation

The UCT Upper Campus is located to the west of the M3 and Lower & Middle Campus to the east of the M3, west of Main Rd. Refer to *Figure A1 (Annexure A)* for the Locality Plan.

The IDF has identified five precincts within a proposed Special Planning Area (SPA). The scope of the parking plan includes Upper Campus (Zone 1) and Middle & Lower Campus (Zone 2) as illustrated in Figure 1. The precincts to the north of Woolsack Drive are not included in this investigation.

^{1.} University of Cape Town, Integrated Development Framework and related Precinct Plans, Draft 6, August 2018.

^{2.} University of Cape Town, Transport Study for UCT Upper, Lower and Middle Campuses, Draft 1, July 2019



Figure 1: Scope of proposed parking investigation

2 CITY OF CAPE TOWN BY-LAW REQUIREMENTS

The City of Cape Town's DMS requires a parking rate of 0.1 bays per student and 1 bay per office and lecture room for areas located in Standard parking zones.

3 TRANSPORT STATUS QUO ASSESSMENT

Transport surveys were undertaken to determine the parking capacity and parking demand on the various campuses, as well as the modal split and vehicle trip generation rates.

3.1 Methodology

The following surveys were undertaken:

- Parking Survey
- Screen line survey with vehicle occupancy

3.1.1 Parking Survey

The parking surveys were undertaken at the various parking areas across Upper Campus and Lower and Middle Campus. Refer to Figure 2 for the survey locations. These excluded areas where students and staff are parking illegally and/or informally.

The parking survey was undertaken over a 12-hr period (06:00-18:00) on a typical weekday (9 April 2019 (Middle & Lower Campus) and 11 April 2019 (Upper Campus)) with the aim of determining the parking profile over the day, as well as the peak parking demand.

The actual number of marked parking bays was determined during the survey. Based on this, the peak parking rate/ student on the different campuses were calculated.



Figure 2: Parking Areas Surveyed

3.1.2 Screen line survey

The screen line surveys were undertaken at 3 locations on Upper Campus;

- The southern entry at Rhodes Memorial Street/ Ring Road intersection
- The M3 Off-Ramp Entrance
- The northern entry along Woolsack Drive Northern Entrance

The screen line surveys were undertaken at 5 locations on Lower & Middle Campus;

- Chapel Road/Main Road intersection
- Burg Road/Lovers Walk intersection
- Stanley Road/Lovers Lane intersection
- Cross Campus Road/Woolsack Drive intersection
- Baxter Road

Refer to the locations below in Figure 3.



Figure 3: Screenline and pedestrian count locations

The screen line counts were undertaken over a 12-hr period (06:00-18:00) on a typical weekday (9 April 2019 (Middle & Lower Campus), 11 April 2019 (Upper Campus). The number of vehicles, vehicle types and the occupancy of vehicles passing the various screen line count locations were surveyed. As it is problematic to assess bus occupancy while the vehicle is traveling pass the screen line locations, the bus occupancy was only estimated as "full", "half-full" or "empty". For the analysis, the occupancy numbers was then estimated using the ratio of 45-seater and 60-seater vehicles as used by Jammie Shuttles over the peak period.

3.1.3 Pedestrian survey

The pedestrian surveys formed part of the screen line counts and were undertaken at 5 locations on Upper Campus. Refer to the locations in Figure 3.

- Summer House Pedestrian Underpass
- The M3 footpath to Upper Campus
- The M3 pedestrian bridge (Middle to Upper campus)
- The northern entrance road
- The Ring Road entrance to Upper Campus.

The pedestrian surveys were undertaken at 9 locations on Lower and Middle Campus. Refer to the locations in Figure 3.

- Chapel Road/Main Road
- Chapel Road/Cecil Road
- Jammie Shuttle Walkway
- Baxter Road/Footpath to Woolsack Drive
- Baxter Road/Burg Road
- Lovers Walk/Burg Road
- Lovers Road/Stanley Road & Japonica Walk
- Woolsack Drive Walkway 1
- Woolsack Drive Walkway 2.

The pedestrian surveys were undertaken over a 12-hr period (06:00-18:00) on a typical weekday (4 April 2019).

Based on this, the transport modal split (private vehicles, public transport vehicles and pedestrians), the peak hour vehicle trip generation rate (no of vehicles/ student) and the In/Out splits were calculated.

3.2 Parking Supply

The parking bays on the campuses are shown in Table 1 and totals 3650 bays. These are inclusive of bays reserved for people with disabilities, visitors, students and staff.

Table 1: Overall Parking Supply

	Upper Campus	Lower& Middle Campus	Total UCT
Total Parking Bays	2 526	1 124	3 650

3.3 Parking Demand

3.3.1 Upper Campus

The total parking demand on Upper Campus, peaks at 2 337 vehicles (93% occupied) at 11:30 as depicted in *Figure 4*. The parking demand peaks over the time period 10:30-14:00 with the utilisation level over 90%.

During the peak at 11:30, the highest number of parking bays are available at Parking Area P39 (Nursery Road Parking Area – UCT Parking Area P18) with 44 bays available.

It is further assumed that the extent of illegal/ informal parking around Upper Campus could amount to an extra 20%. If this is taken into consideration, then the parking demand exceeds the supply.



Figure 4: UCT Upper Campus – Total Parking Demand vs Total Capacity with % Utilised

3.3.2 Lower and Middle Campus

A total of 1124 bays are available on Lower and Middle Campus.

The total parking demand on Lower & Middle Campus, peaks at 698 vehicles (62% occupied) at 11:45 as depicted below in *Figure 5* The parking demand peaks over the time period 10:30-12:30 with the utilisation level over 60%.

It is further assumed that the extent of illegal/ informal parking around Middle & Lower Campuses could amount to an extra 20%. If this is taken into consideration, then there is still sufficient parking available on the campuses.



Figure 5: UCT Lower & Middle Campus Total Parking Demand vs Total Capacity and % Utilised

3.4 Parking Rate

The total number of staff and students at UCT (both Campuses) were provided by the University of Cape Town. Unfortunately, the differentiation between staff and student parking could not be undertaken due to the survey methodology. So the UCT parking rate can only be expressed as bays/ person.

The current parking rates for the Upper and Lower & Middle Campuses , based on parking demand in formal parking areas, can be seen in Table 2 below. The increased parking demand is shown in Table 3, assuming a 20% increase in demand due to informal and/ or illegal on-street parking. This factor, resulting in about extra 600 vehicles, also accounts for the expected fluctuation in demand.

	Upper Campus	Lower& Middle Campus	Total UCT
Total Parking Bays	2 526	1 124	3 650
Peak parking demand	2 337	698	3 028
Students	19 487	2 563	22 050
Academic Staff	852	195	1 047
Support Staff	1 515	700	2 215
Total Persons	21 854	3 458	25 312
Parking ratio per person -			
demand	0.11	0.20	0.12

Table 2: I	UCT	Parking	Rates	in	Formal	Parking Areas
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Table 3: UCT Parking Rates with illegal/ informal on-street parking

	Upper Campus	Lower& Middle Campus	Total UCT
Total Parking Bays	2 526	1 124	3 650
Peak parking demand	2 805	838	3 643
Students	19 487	2 563	22 050
Academic Staff	852	195	1 047
Support Staff	1 515	700	2 215
Total Persons	21 854	3 458	25 312
Parking ratio per			
person - demand	0.13	0.24	0.14

From Table 2 and Table 3 the following is concluded:

- There are a total of 3 650 bays on Upper, Lower & Middle Campuses combined, with the combined peak parking demand of 3 028 vehicles in formal parking areas. This increases to 3634 assuming a 20% increase in parking demand due to informal and/ or illegal parking.
- The parking demand rate varies between 0.11 -0.13 bays/ person on Upper Campus and 0.2-0.24 bays/ person on Lower & Middle Campus. In total, it results in a rate of 0.12-0.14 bays/ person.

The City of Cape Town's parking rate is expressed as 0.1 bay per student and 1 bay per office and lecture theatre. This converts to 0.25 bays per person, applying UCT's student/ staff ratio for the purpose of comparing with the UCT parking rate. Accordingly, UCT's current parking rate in formal parking areas, are approximately half of what is required.

3.5 Parking Occupancy Over Different Time Periods of the Day

The occupancy levels of each parking area over different time periods of the day are depicted in Figure 6 - Figure 9.



Figure 6: Parking Occupancy at 10:00



Figure 7: Parking Occupancy at 12:00







Figure 9: Parking Occupancy at 18:00

3.6 Modal Split

During the screen line surveys persons entering and exiting the UCT campuses by means of the following modes were captured:

- Car/Light vehicle (persons per vehicle were captured)
- Jammie Shuttle (full, half-full or empty shuttles were surveyed).
- Pedestrians
- Cyclists
- Motor Cyclists

The screen line surveys were combined with the pedestrian counts to calculate the modal split of persons entering and exiting the UCT campuses.

3.6.1 Upper Campus

The total persons entering and exiting Upper Campus are shown in *Figure 10, Figure 11* and *Figure 12*.



Figure 10: Total Persons Entering Upper Campus



Figure 11: Total Persons Exiting Upper Campus



Figure 12: Total Persons In & Out of Upper Campus

The model split for persons entering and exiting the Upper Campus at the screen line survey points and pedestrian count points are shown in *Figure 13*. UCT's Upper Campus has a modal split in favour of sustainable forms of transport with 37% of persons using cars.



Figure 13: Modal Split – Persons In & Out Upper Campus

3.6.2 Lower and Middle Campus

The total persons entering and exiting Lower & Middle Campus can be seen in *Figure 14 - Figure 16*.



Figure 14: Total Persons Entering Lower & Middle Campus



Figure 15: Total Persons Exiting Lower & Middle Campus



Figure 16: Total Persons In & Out Lower & Middle Campus

The model split for persons entering and exiting Lower & Middle Campus at the screen line survey points and pedestrian count points are shown in Figure 17. From this, it is clear that **UCT's Middle &** Lower Campus has a modal split in favour of private vehicle usage with 59% of persons using cars.



Figure 17: Modal Split – Total Persons In & Out Lower & Middle Campus

3.6.3 Combined

The combined model split for persons entering and exiting Upper and Lower & Middle Campuses at the screen line survey points and pedestrian count points is shown in Table 4. From this, it is clear that **UCT's combined modal split is in favour of sustainable forms of transport with 43% of persons using cars**.

		Upper		Ν	/iddle & Lo	ower		Combine	ed
Modes	Person- trips In & Out	Modal Split	% sustainable transport	Person- trips In & Out	Modal Split	% sustainable transport	Person- trips In & Out	Modal Split	% sustainable transport
Car/LV	18 255	37%		9 800	59%		28 055	43%	
Jammie's	21 000	43%		1 374	8%		22 374	34%	
Ped	9 492	19%	63%	5 256	32%	41%	14 748	22%	57%
Cyclists	80	0.2%	05%	26	0.2%	4170	106	0.2%	57%
Motor Cyclists	296	0.6%		173	1.0%		469	0.7%	
Total	49 123			16 629			65 752		

Table 4: Modal Splits for Upper and Lower & Middle Campuses

ITS 4226

3.7 Vehicle Trip Generation Rates

The trip generation rates for the highest peak hour for UCT is provided in *Table 5*.

	Upper Campus	Lower& Middle Campus	Total UCT
Total AM peak hour trips	1 487	1 181	2 666
Total PM peak hour trips	1 636	880	2 478
Students	19 487	2 563	22 050
Academic Staff	852	195	1047
Support Staff	1 515	700	2 215
Total Persons	21 854	3 458	25 312
Trip gen ratio per student	0.08	0.46	0.12

Table 5: Trip Generation Rates on Upper and Lower & Middle Campuses

- **Upper Campus** : A total of 1 487 vehicle trips enter and exit the Upper Campus during the • AM Peak Hour and 1 636 vehicle trips during the PM Peak Hour. With a total of 19 487 students using this campus, this calculates to a trip generation rate of 0.08 vehicles per student.
- Lower and Middle Campus: A total of 1 181 vehicle trips enter and exit the Lower & Middle • Campus during the AM Peak Hour and 880 vehicle trips during the PM Peak Hour. With a total of 2 563 students this calculates to a trip generation rate of 0.46 vehicles per student.
- **Combined**: The combined trip generation rate per person for the Upper and the Lower & ٠ Middle Campuses, is **0.12 vehicles per student**.

The Committee of Transport Officials (COTO) Trip Data Manual³ recommends a trip generation rate for Universities/ Colleges of 0.2 trips per student during the peak hour. It is apparent that the trip generation rate at UCT is lower than the COTO recommended rate. However, the rate of the Upper Campus is much lower and the Middle & Lower Campus have a higher rate than the COTO recommended rate.

^{3.} Committee of Transport Officials, TMH 17 South African Trip Data Manual, Version 1.01, September 2013

4 TRANSPORT PLAN

4.1 Vision and Objectives

In response to the University of Cape Town overall vision, the focus statement for transport⁴ is set as follow:

Vision

A sustainable transport system that ensures the equitable access of all members of the University Community to the opportunities offered by the University.

Focus Statement

Support safe and secure people oriented campuses through the promotion of non-motorised transport (NMT) facilities and programs, efficient public transport facilities and operations underpinned by a sustainable campus transport access system.

In response to this, the following policies have been adopted:

- The promotion of non-motorised transport to, from and within the University campuses,
- The promotion and support of public transport, and
- Effective campus access, road and parking management

The transport objective linked to these policies is "The intention is to create a conducive environment that will encourage people to move from their vehicles to more sustainable forms of transport. Over a period of ten years, or another agreed period, private vehicle usage is envisaged to decline to a more sustainable 30% of all trips made, with the cycling mode share increasing to 5%, walking to 20% and the use of public transport to a desirable 45%."

From this a modal share for private vehicles of 30% is targeted. Currently the private vehicle modal share on Upper Campus is 37% and on Middle & Lower Campus it is much higher, at 59%.

In response, a series of strategies, program and projects have been identified in support of this targeted modal shift that includes the implementation of a NMT Masterplan, the further roll-out of the Jammie Shuttle and the implementation of the Campus Access Management Plan.

^{4.} Extracted from the UCT's Integrated Transport Plan Framework for the University of Cape Town, incorporating Campus Access Management Plan

4.2 Future Transport Modal Share

The targeted modal shift away from private transport to more sustainable forms of transport is as set out in Table 6. The modal share on Upper Campus is more aligned with the vision.

		Modal	Share	
Modes		201	.9 ²	
Wodes	2006 ¹	Upper Campus	Middle &	Vision ³
		Opper Campus	Lower Campus	
Private transport	53%	37%	59%	30%
Public transport	33%	43%	8%	45%
Cycling and	1%	0.8%	1%	5%
Motorbikes	170	0.878	170	576
Walking	13%	19%	32%	20%

Table 6: Change in Modal Share over time

Notes:

- 1. Survey commissioned by the University of Cape Town in 2006 and undertaken by Ninham Shand.
- 2. Survey commissioned by the University of Cape Town in 2019 and undertaken by Innovative Transport Solutions as part of the Transport Study.
- 3. Targets set in the ITP Framework for UCT, including the CAMP of 2014.

5 INTEGRATED DEVELOPMENT FRAMEWORK

5.1 Proposed Developments

UCT's IDF as shown in Figure 18, comprises various development proposals across the various campuses in Rondebosch, Rosebank, Mowbray and Observatory. It includes offices, lecture theatres, laboratories, public transport upgrades, parking and residences.



Figure 18: Proposed Integrated Development Framework

The proposed developments on Upper Campus are illustrated in Figure 19 and the proposed developments on Middle & Lower Campuses are illustrated in Figure 20.



Figure 19: Proposed Development on Upper Campus



Figure 20: Proposed Development on Middle & Lower Campuses

The scope of the IDF is also listed in Table 7. The extent of potential development is purely estimated at this stage based on potential yield of the sites. Furthermore, assumptions have been made about the number of seminar rooms/ lecture theatres, occupancies and number of offices. The actual occupancies of the proposed development will only be finalised when building plans or site development plans are developed.

LAND USE PROPOSALS	EXTENT OF LAND USE
	GLA proposed (m2)
UPPER CAMPUS	
New Mixed Use Academic Buildings incorporating structured parking	11 000
Structured Parking P1	0
New Mixed Use Academic Buildings incorporating structured parking	9 000
Jammie Terminal - North Stop	0
Upgrade of Madiba Crescent Parking	0
Sports Centre Extension	2350
TOTAL	22 350
MIDDLE AND LOWER CAMPUSES	
Summer House	2 000
Woolsack Triangle Site - Design School	3 800
New Middle Campus Building above Bremner (both parking areas)	12 000
Cricket Field	2 500
School of Education	4 400
The Cottage	2 500
College of Music	2 500
Research and Innovation House	2 500
Baxter Theater	2 500
TOTAL	34 700

5.2 Impact on Parking

The proposed IDF developments will result in additional parking, but the overall impact of the increased parking demand and loss in parking (some areas) have been assessed for each campus and the nett additional parking is included in Table 2. Also refer to Annexure B for the more detailed analyses for each campus.

LAND USE PROPOSALS	EXTENT OF LAND USE	NETT PARKING PROVIDED	CURRENT PARKING RATE	FUTURE PARKING RATE	COCT PARKING RATE
	GLA proposed (m2)	Bays	bays/ pers	bays/ pers	bays/ pers
UPPER CAMPUS					
New Mixed Use Academic Buildings incorporating structured parking	11 000	233			
Structured Parking P1	0	600			
New Mixed Use Academic Buildings incorporating structured parking	9 000	166			
Jammie Terminal - North Stop	0	-18			
Upgrade of Madiba Crescent Parking	0	36			
Sports Centre Extension	2350	0			
TOTAL	22 350	1 017	0.12	0.16	0.25
MIDDLE AND LOWER CAMPUSES					
Summer House	2 000	-80			
Woolsack Triangle Site - Design School	3 800	24			
New Middle Campus Building above Bremner (both parking areas)	12 000	170			
Cricket Field	2 500	0			
School of Education	4 400	9			
The Cottage	2 500	0			
College of Music	2 500	0			
Research and Innovation House	2 500	0			
Baxter Theater	2 500	0			
TOTAL	34 700	123	0.33	0.28	0.25

Note:

- 1. These rates can be further reduced to be in line with the desired 30% modal split for private vehicles.
 - Upper Campus: 0.10 bays/pers
 - Middle & Lower Campus: 0.12 bays/pers
- 2. The CoCT Parking Rate is 0.1 bay for every student and 1 bay for every office and lecture theatre. Assuming that every office and lecture theatre refer to staff and that every staff member requires a parking bay, this rate has been converted to a rate per person of 0.25 bays/pers. This is based on UCT's current student/ staff ratio.
- 3. The nett parking calculated excludes the existing unaffected parking on Upper, Middle & Lower Campus. Only the parking affected by the IDF development proposals are listed.

5.2.1 Upper Campus

The substantial structured parking proposed on Upper Campus should also be noted, resulting in an additional 1017 bays on Upper Campus, but the parking rate proposed for Upper Campus is less than what is required by the CoCT. This is motivated and supported due to the current modal split in favour of the Jammie Shuttle.

Considering the extent of future developments along with the increase in parking demand, as well as the potential parking that will either be lost or additional parking supplied, Upper Campus will have a **resultant parking rate of 0.16 bays/ person** with the implementation of the IDF. This is 64% of the rate required by the City of Cape Town.

On Upper Campus it expected that developments will be undertaken in the following manner:

- Phase 1: Upgrade of Madiba Crescent Parking
- Phase 2: Jammie North Stop Terminal
- Phase 3: P1 Structured Parking
- Phase 4: Sports Centre Extension (2 350m2)
- Phase 5: New Mixed Use Academic Buildings (11 000m2) incorporating structured parking
- Phase 6: New Mixed Use Academic Buildings (9 000m2) incorporating structured parking

The interim parking rates will vary as the IDF proposals are implemented from as low as 0.12 bays/ person to 0.16 bays/ person on completion of the proposed developments. Refer to Table 9. Also refer to Annexure B -1 for the more detailed analyses for the campus.

Parki	ng Rate after	r each deve	elopment	
Existing parking ra	ite	0.12	bays/pers	
Increased parking	rate	0.13	bays/pers	
Parking rate after development	IDF	0.16	bays/ pers	
CoCT DMS rate		0.25	bays/ pers	
UCT CAMP rate		0.10	bays/pers	
Proposed minimu	m rata for U	T based o		
Proposed minimu	m rate for U0 0.10			42%
Proposed minimu Parking Rate Per P	0.10	bays/ per		42%
	0.10	bays/ per		42%
Parking Rate Per P	0.10 Phase roll-out	bays/ pei		42%
Parking Rate Per P	0.10 Phase roll-out 0.12	bays/ per t bays/ pers		42%
Parking Rate Per P	0.10 Phase roll-out 0.12 0.12	bays/ pers bays/ pers bays/ pers		42%
Parking Rate Per P 1 2 3	0.10 Phase roll-out 0.12 0.12 0.15	bays/ pers bays/ pers bays/ pers bays/ pers		42%
Parking Rate Per P 1 2 3 4	0.10 Phase roll-out 0.12 0.12 0.15 0.15	bays/ pers bays/ pers bays/ pers bays/ pers bays/ pers bays/ pers		42%
Parking Rate Per P 1 2 3 4 5	0.10 Phase roll-out 0.12 0.12 0.15 0.15 0.16	bays/ pers bays/ pers bays/ pers bays/ pers bays/ pers bays/ pers bays/ pers	rson	42%

Table 9: Upper Campus: Parking Rate per Phase

In the Integrated Transport Plan Framework⁵ for UCT a modal share of 30% for private vehicles is targeted. A parking rate of 0.1 bays (42% of the required rate of the City of Cape Town) is more aligned with this modal share for private vehicles. Accordingly, the **proposed parking rate for Upper Campus is 0.1 bays/ person.**

5.2.2 Middle & Lower Campuses

Due to the integrated nature of these 2 campuses, it is being assessed as one campus. Considering the extent of future developments along with the increase in parking demand, as well as the potential parking that will either be lost or additional parking supplied, Middle and Lower Campus will have a **resultant parking rate of 0.28 bays/ person** with the implementation of the IDF. This is approximately in line with the rate required by the City of Cape Town.

^{5.} University of Cape Town, Integrated Transport Plan Framework for the University of Cape Town, incorporating Campus Access Management Plan (CAMP111), May 2014
On Middle & Lower Campus it expected that developments will be undertaken in the following manner:

- Phase 1: School of Education
- Phase 2: Design School
- Phase 3: New Middle Campus Building above Bremner (both parking areas)
- Phase 4: Development of Summer House
- Phases 5-8: Development of The Cottage, College of Music, Research and Innovation House and the Baxter Theatre

The interim parking rates will vary as the IDF proposals are implemented from as low as 0.28 bays/ person to 0.31 bays/ person on completion of the proposed developments, which is higher than the CoCT's recommended rate for Standard parking areas. Refer to Table 10.

Also refer to Annexure B -2 for the more detailed analyses for the campus.

Parking Rate after each development								
Existing par	king rate		0.33	bays/ pers				
Increased p	arking rate	•	0.24	bays/ pers				
Parking rate	e after IDF		0.28	bays/ pers				
developme	nt							
CoCT DMS	rate		0.25	bays/ pers				
UCT CAMP	rate		0.12	bays/ pers				
Proposed n	ninimum ra	ite for UCT 0.12	, based on bays/ pers		44%			
Parking Rat	e Per Phas	e roll-out						
Phases								
1		0.30	bays/ pers					
2		0.28	bays/ pers					
3		0.31	bays/ pers					
4		0.29	bays/ pers					
5		0.29	bays/ pers					
6		0.28	bays/ pers					
7		0.28	bays/ pers					
8		0.28	bays/ pers					
		112%	of CoCT DI	AS rate				

Table 10: Middle & Lower Campus: Parking Rate per Phase

In the Integrated Transport Plan Framework for UCT a modal share of 30% for private vehicles is targeted. A parking rate of 0.12 bays (50% of the required rate of the City of Cape Town) is more aligned with this modal share for private vehicles.

5.3 Future Parking Proposals

On completion of the IDF proposals on Upper, Middle and Lower Campus It is further recommended that

- The **parking supply rate be capped** at the proposals made in the IDF. No additional parking should be provided once the parking proposals in the IDF have been implemented. The proposed parking available after the roll-out of the IDF, be accepted as the maximum available parking on Campus.
- No more large parking areas being created on Campus. Where possible basement parking be constructed with new buildings.

This approach will ensure that if UCT increases its student and staff populations in the future, the **parking rate/ person decreases over time** and that the use of the more sustainable forms of transport increase over time.

6 TRANSPORT MANAGEMENT PROPOSALS

Achieving the desired modal shift away from private vehicle usage and over time, decrease the demand for parking per person, will require significant interventions towards sustainable transport operations by UCT. This includes the continuation of the Jammie Shuttle, promoting walking and cycling as transport modes on Campus, and to manage the provision of parking on Campus as excessive parking provision can further encourage private car usage.

6.1 Public transport/ Jammie Shuttle

The most significant intervention is the implementation of the Jammie Shuttle and the subsequent roll-out thereof to Hiddingh Hall in Cape Town CBD, the Health Science Campus in Observatory, including the various collection points in Claremont and Rondebosch. The routes serviced by the Jammie Shuttle is illustrated in Figure 21 and Figure 22.



SCHEMATIC

Figure 21: Jammie Shuttle Routes



Figure 22: Jammie Shuttle Routes extent

6.2 Cycle Network

UCT also developed a Cycle Network across Upper and Middle & Lower Campuses; primarily class 4 cycle routes (streets shared with cyclists). The current modal share is quite low, less than 1% on both campuses. Refer to Figure 23, as well as Annexure A.



Figure 23: UCT Cycle Network

6.3 Parking Management

Parking availability on Campus has been a problem for many years giving rise to concerned and angry neighbours being confronted with the parking spill-over into neighbouring residential streets on a daily basis. A particular response would be to increase parking on Campus, but this in turn will give rise to many other unintended consequences such as increased private car usage on campus, increased congestion, limited parking, impacting on the historical nature of Upper Campus in particular, as well as the quality of the landscaping on the campuses. Although increased parking can be viewed as desired and a short-term solution, in the long-term it is an unsustainable practice with negative consequences.

In support of their overall objective to move towards more sustainable forms of transport, UCT's focus is to manage the supply of parking to acceptable levels agreed with the CoCT and manage the demand for parking as well. From this,

- Additional parking will be provided, in line with the IDF requirements and the proposed Parking Zone requirements.
- Various parking management tools can be considered which are briefly listed below in Table 11. This is not an exhaustive list and many studies are available that comment on the success of the tools. However, the principle promoted is that while it is proposed to cap the parking provision on Campus with limited additional parking to be provided, parking demand and supply should be strictly managed using "soft tools", of which some have been listed below in Table 11.

PARKING SUPPLY MANAGEMENT	PARKING DEMAND MANAGEMENT
Infrastructure	Spreading Demand
New parking garages on Upper Campus	Schedule some classes outside of the peak parking demand period (ie. after 2pm on weekdays). For example: Research students, post-graduate students generally arrive after 2pm and 4pm.
Structured basement parking on Upper and Middle Campus	Parking Restrictions
Parking being provided at the rates proposed in this Plan, and capped at the parking provision included in the IDF.	No parking for 1-st year students as they are encouraged to use the Jammie Shuttle.
Consider leasing un-used parking areas from neighbouring churches.	
Use the available parking spaces for residences, linked to the Jammie Shuttle. 400 bays will be made available to staff & students	
Operations	Alternative Transport Solutions
Paid parking in structured parking	Promote and accommodate forms of e-hailing
Reserved parking areas and shared parking areas.	Jammie Shuttle transport service for students and staff
Detectors in parking bays, linked to technological systems that can be applied to variable message signboards on Campus, as well as a cellphone apps.	Encouraging pedestrian and cycle access to and from, as well as across Campuses.
On-campus shuttle operations, using Jammies Shuttle, between outlying parking areas to Campuses.	Creating and/ or Bicycle parking and Bicycle Rental opportunities
Communicating parking areas, availability and shuttle services for events.	Improved safety and security along pedestrian and cycle routes.
Institutional Liaison	Prioritizing parking for high-occupancy vehicles. Ride- share bays are already available (4 in a car). Located on the southern side of rugby field) .Also promote car- pooling.
Campus Traffic enforcement on surrounding public streets. UCT is already leasing parking areas/ streets from CoCT and taking over the enforcement function.	Using technology to communicate the availability of parking and car-pools.

7 CONCLUSIONS AND WAY FORWARD

7.1 Current Parking Rate

There are a total of 3 650 bays on Upper, Lower & Middle Campuses combined, with the combined peak parking demand of 3 028 vehicles in formal parking areas. This increases to 3 634 assuming a 20% increase in parking demand to account for informal and/ or illegal parking, as well as variations in parking demand.

The current parking demand rate varies between **0.11 -0.13 bays/ person on Upper Campus** and **0.2-0.24 bays/ person on Lower & Middle Campus**. In total, it results in a rate of 0.12-0.14 bays/ person.

The City of Cape Town's parking rate is expressed as 0.1 bay per student and 1 bay per office and lecture theatre. This converts to 0.25 bays per person, applying UCT's student/ staff ratio for the purpose of comparing with the UCT parking rate. Accordingly, UCT's current parking rate in formal parking areas, are approximately half of what is required.

7.2 Current Modal Split

The combined model split for persons entering and exiting Upper and Lower & Middle Campuses indicates that UCT's combined modal split is in favour of sustainable forms of transport with 43% of persons using cars.

7.3 Impact of the IDF on parking

The proposed developments will result in additional parking required and some proposals are in fact located on current at-grade parking areas, which will again result in a loss in parking. The overall impact of increased parking demand and loss in parking have been assessed for each campus.

- The current parking rate on Upper Campus is 0.12 bays/ person. It is proposed that a parking rate of **0.1 bays/ person** be approved, which is aligned with a 30% modal share of private transport; ie. UCTs future envisaged private modal share.
- The current parking rate on Middle & Lower Campus is 0.33 bays/ person. It is proposed that a parking rate of 0.12 bays/ person be achieved, which is also aligned with the future modal share envisaged for private vehicles.

7.4 Way Forward

The future parking rate of Upper Campus will fall substantially short of the current Standard Parking Zone parking rate. Based on this investigation it is proposed that a rate of 0.1 bays/ person for Upper Campus and 0.12 bays/ person for Middle & Lower Campus be adopted and be applied by the City of Cape Town in future applications.

It is further recommended that various parking management tools be implemented to manage the supply and demand for parking and that the parking rates be evaluated over time.

The extent of potential development is purely estimated at this stage based on potential yield of the sites. Furthermore, assumptions have been made about the number of seminar rooms/ lecture theatres, occupancies and number of offices, along with the phasing of implementation. The actual occupancies of the proposed development will only be finalised when building plans or site development plans are developed. It is further recommended that as parking requirements are determined at the time as the Site Development Plans or building plans are developed, the recommended parking rates be adhered to, subject to maintaining the Jammie Shuttle operations at a level to support the desired modal split in favour of public transport and other sustainable transport modes.

Annexure A: Maps and Figures





Annexure B: Tables

	TABLE B-1: UPPER CAMPUS: IMPACT OF DEVELOPMENT PROPOSALS ON PARKING																	
			Extent of I	and Use Pro	posed							Parking	Parking	Parking I	Required ba	ised on Co	T DMS	
New Developments	GLA proposed	% space allocated for Offices	% GLA for support functions	% GLA for lecture venues/ laboratories	Students	Lecture Theatres	Offices	No of new people	Existing Bays on affected sites	Future bays	Nett bays	Required (current demand)	Required (current demand + 20%)	1	1	0.1	Total Required	Phasing
	m2 Source: IDF				Assumed	Assumed	12 m2 per office			Source: IDF		0.11 bays/ pers	0.13 bays/ pers	per office	per lecture theatre	per student		
New Mixed Use Academic Buildings incorporating structured parking	11 000	15%	25%	60%	60	3	138	201	117	350	233	22	26	138	3	6	147	5
Structured Parking P1							1	1	400	1 000	600	1	1	1	0	0	1	3
New Mixed Use Academic Buildings incorporating structured parking	9 000	15%	25%	60%	40	2	113	155	84	250	166	17	20	113	2	4	119	6
Jammie Terminal - North Stop	0				0		1	1	18	0	-18	1	1	1	0	0	1	2
Upgrade of Madiba Crescent Parking									35	71	36							1
Sports Centre Extension	2 350							0	0	0	0	0						4
Total					100	5	253	358	654	1 671	1 017	41	48	253	5	10	268	

IMPACT PER PHASE		
Summary: Upper Campus		
Total parking supply	2 526	
Total people	21 854	people
Existing parking rate - supply		bays/ pers
Nett increase/ decrease in bays	1017	
Future number of total bays	3 543	
Future number of people	22 212	
Future parking rate - supply		bays/ pers
Nett increase/ decrease in people		people
Summary: Upper Campus - Phase 1		1
Total parking supply	2 526	_
Total people	21 854	people
Existing parking rate - supply		bays/ pers
Nett increase/ decrease in bays	36	
Future number of total bays	2 562	
Future number of people	21 854	
Future parking rate - supply	0.12	bays/ pers
Nett increase/ decrease in people		people
Summary: Upper Campus - Phase 2		2
Nett increase/ decrease in bays	-18	
Future number of total bays	2 544	
Future number of people	21 855	
Future parking rate - supply	0.12	bays/ pers
Nett increase/ decrease in people	1	people
Summary: Upper Campus - Phase 3		3
Nett increase/ decrease in bays	600	
Future number of total bays	3 144	
Future number of people	21 856	
Future parking rate - supply	0.15	bays/ pers
Nett increase/ decrease in people	1	people
Summary: Upper Campus - Phase 4		4
Nett increase/ decrease in bays	0	
Future number of total bays	3 144	
Future number of people	21 856	
Future parking rate - supply	0.15	bays/ pers
Nett increase/ decrease in people	0	people
Summary: Upper Campus - Phase 5		5
Nett increase/ decrease in bays	233	
Future number of total bays	3 377	
Future number of people	22 057	
	0.16	bays/ pers
Future parking rate - supply	201	people
Future parking rate - supply Nett increase/ decrease in people		6
Nett increase/ decrease in people		0
Nett increase/ decrease in people	166	0
Nett increase/ decrease in people Summary: Upper Campus - Phase 5	166 3 543	0
Nett increase/ decrease in people Summary: Upper Campus - Phase 5 Nett increase/ decrease in bays		0
Nett increase/ decrease in people Summary: Upper Campus - Phase 5 Nett increase/ decrease in bays Future number of total bays	3 543 22 212	bays/ pers

Existing parking rate		0.12	bays/ pers	
Increased parking rate		0.13	bays/ pers	
Parking rate after IDF development		0.16	bays/ pers	
CoCT DMS rate		0.25	bays/ pers	
UCT CAMP rate		0.10	bays/ pers	
Proposed minimum rat	e for U(0.10			42%
•	0.10	bays/ pe		42%
•	0.10	bays/ per		429
Parking Rate Per Phase	0.10 roll-out	bays/ per t bays/ pers		42%
Parking Rate Per Phase	0.10 roll-out 0.12	bays/ pers bays/ pers bays/ pers		42%
Parking Rate Per Phase	0.10 roll-out 0.12 0.12	bays/ pers bays/ pers bays/ pers bays/ pers		429
2 3	0.10 roll-out 0.12 0.12 0.15	bays/ pers bays/ pers bays/ pers bays/ pers bays/ pers		42%
Parking Rate Per Phase 1 2 3 4	0.10 roll-out 0.12 0.12 0.15 0.15	bays/ pers bays/ pers bays/ pers bays/ pers bays/ pers bays/ pers		429

Change in Modal Share	Private Transport
Current Modal Share ¹	37%
UCT CAMP Target ²	30%

1: University of Cape Town, Transport Study for Upper, Lower and Middle Campuses, July 2019

2: University of Cape Town, Integrated Transport Plan Framework for the University of Cape Town, incorporating Campus Access Management Plan (CAMP111), May 2014

	TABLE B-2: MIDDLE & LOWER CAMPUS: IMPACT OF DEVELOPMENT PROPOSALS ON PARKING																		
		Extent of Land Use Proposed						No of		Future		Future	Parking Required	Parking Required (current	Parkin	g Required	based on (CoCT DMS	
New Developments	GLA propose d	% space allocated	% GLA for support	% GLA for lecture venues/	Students	Lecture Theatres	Offices	new people	Existing Bays		Nett bays	(current demand)	demand + 20%)	1	1	0.1	Total	Phasing	
	m2	for Offices	functions	laboratories	Assumed	Assumed	12					0.20	0.24	per office	per lecture	per student	Required		
	Source: IDF						m2 per office			Source: IDF		bays/ pers	bays/ pers		theatre				
Summer House	2 000	15%	25%	60%			25	25	102	22	-80	6	7	25	0	0	25	4	
Woolsack Triangle Site - Design School	3 800	-	-	-	321	5	14	340	0	24	24	69	83	14	5	32.1	52	2	
New Middle Campus Building above Bremner (both parking areas)	12 000	15%	25%	60%	40	2	150	192	130	300	170	39	47	150	2	4	156	3	
Cricket Field	2 500	0%			0	0	0	0	0	0	0	0	0	0	0	0	0		
School of Education	4 400	-	-	-	286	14	37	337	0	9	9	69	82	37	14	28.6	80	1	
The Cottage	2 500	15%	25%	60%	20	2	32	54	0	0	0	11	14	32	2	2	36	5	
College of Music	2 500	15%	25%	60%	20	2	32	54	0	0	0	11	14	32	2	2	36	6	
Research and Innovation House	2 500	15%	25%	60%	20	2	32	54	0	0	0	11	14	32	2	2	36	7	
Baxter Theater	2 500	15%	25%	60%	20	2	32	54	0	0	0	11	14	32	2	2	36	8	
Total					727	29	354	1 110	232	355	123	227	275	354	29	73	457		

Summary: Middle and Lower Campus	
Total parking supply	1 124
Total people	3 458 people
Existing parking rate - supply	0.33 bays/ pers
Nett increase/ decrease in bays	123
Future number of total bays	1 247
Future number of people	4 568
Future parking rate	0.28 bays/ pers
Nett increase/ decrease in people	1 110 people
Summary: Lower Campus - Phase 1	1
Total parking supply	1 124
Total people	3 458 people
Existing parking rate - supply	0.33 bays/ pers
Nett increase/ decrease in bays	9
Future number of total bays	1 133
Future number of people	3 795
Future parking rate	0.30 bays/ pers
Nett increase/ decrease in people	337 people
Summary: Lower Campus - Phase 2	2
Nett increase/ decrease in bays	24
Future number of total bays	1 157
Future number of people	4 135
Future parking rate - supply	0.28 bays/ pers
Nett increase/ decrease in people	340 people
Summary: Upper Campus - Phase 3	3
Nett increase/ decrease in bays	170
Future number of total bays	1 327
Future number of people	4 327
Future parking rate - supply	0.31 bays/ pers
Nett increase/ decrease in people	192 people
Summary: Lower Campus - Phase 4	4
Nett increase/ decrease in bays	-80
Future number of total bays	1 247
Future number of people	4 352
Future parking rate - supply	0.29 bays/ pers
Nett increase/ decrease in people	25 people
Summary: Lower Campus - Phase 5	5
Nett increase/ decrease in bays	0
Future number of total bays	1 247 4 406
Future number of people Future parking rate - supply	4 406 0.29 bays/ pers
Nett increase/ decrease in people	54 people
nett mitledse/ uetredse in people	

Parking Rate after eac	li develop			
Existing parking rate		0.33	bays/ pers	
Increased parking rate	•	0.24	bays/ pers	
Parking rate after IDF		0.28	bays/ pers	
development				
CoCT DMS rate		0.25	bays/ pers	
UCT CAMP rate		0.12	bays/ pers	
Proposed minimum ra	te for UCT	. based on	CAMP	
		,	CAIVII	1
	0.12			4
Parking Rate Per Phase	÷			4
Parking Rate Per Phase Phases	÷			4
•	÷	bays/ pe	rson	4
Phases	e roll-out	bays/ per	rson s	4
Phases 1	e roll-out 0.30	bays/ per bays/ per bays/ per	rson 'S	4
Phases 1 2	0.30 0.28	bays/ per bays/ per bays/ per bays/ per	rson 'S 'S	4
Phases 1 2 3	0.30 0.28 0.31	bays/ per bays/ per bays/ per bays/ per bays/ per	rson 'S 'S 'S 'S	4
Phases 1 2 3 4	0.30 0.28 0.31 0.29	bays/ per bays/ per bays/ per bays/ per bays/ per bays/ per bays/ per	rson S S S S S S S	4
Phases 1 2 3 4 5	0.30 0.28 0.31 0.29 0.29	bays/ per bays/ per bays/ per bays/ per bays/ per bays/ per bays/ per bays/ per	rson 5 5 5 5 5 5 5 5 5	4.
Phases 1 2 3 4 5 6	0.30 0.28 0.31 0.29 0.29 0.28	bays/ per bays/ per bays/ per bays/ per bays/ per bays/ per bays/ per bays/ per	rson 5 5 5 5 5 5 5 5 5 5 5 5	4.

Summary: Lower Campus - Phase 6	6
Nett increase/ decrease in bays	0
Future number of total bays	1 247
Future number of people	4 460
Future parking rate - supply	0.28 bays/ pers
Nett increase/ decrease in people	54 people
Summary: Lower Campus - Phase 7	7
Nett increase/ decrease in bays	0
Future number of total bays	1 247
Future number of people	4 514
Future parking rate - supply	0.28 bays/ pers
Nett increase/ decrease in people	54 people
Summary: Lower Campus - Phase 8	8
Nett increase/ decrease in bays	0
Future number of total bays	1 247
Future number of people	4 568
Future parking rate	0.28 bays/ pers
Nett increase/ decrease in people	54 people

Change in Modal Share	Private Transport
Current Modal Share	59%
UCT CAMP Target ²	30%

1: University of Cape Town, Transport Study for Upper, Lower and Middle Campuses, July 2019

2: University of Cape Town, Integrated Transport Plan Framework for the University of Cape Town, incorporating Campus Access Management Plan (CAMP111), May 2014

ANNEXURE I : DECISION-MAKING CRITERIA I.T.O. S.99 OF THE MPBL

Section 99 of the Municipal Planning By-law sets out the decision-making criteria that the City have to consider.

Section 99(1) of the Cape Town Municipal Planning By-Law (MPBL)

(a) the proposed use or development of land must comply with or be consistent with the municipal spatial development framework, or if not, a deviation from the municipal spatial development framework must be permissible;

The proposals comply with the MSDF, with the exception of being the proposed bus stop on Erf 30332 and this deviation is being dealt with as part of a separate land use application.

(b) No departues for floor space or height are sought and Item 9(2) of the DMS, which relates to rezoning to the appropriate subzone, is not relevant.

Section 99(2) of the MPBL

In terms of this subsection, if an application is not refused under subsection (1), the decision maker must consider all relevant considerations, including the following:

(a) The proposal complies with all applicable spatial development frameworks, with the exception of the the proposed bus stop on Erf 30332. This deviation from the MSDF and Southen District Plan, which is largely due to a mapping error, is being dealt with as part of a separate land use application.

Most of the study area of the IDF is situated in the Urban Inner Core of the metropolitan area and within Transport-accessible Precincts (TAP) where land use intensification and residential densities are encouraged and supported so as to achieve a compact and vibrant city where public transport is sustained.

(b) The application complies with the relevant criteria contemplated in the Development Management Scheme, i.e. the proposal is desirable when assessed in terms of the adjudication criteria.

(c) The proposed densification is compliant with all applicable policy or strategy approved by the City to guide decision making, which includes the Social Development Strategy and the Economic Growth Strategy;

(d) the proposed developments and land uses meet the criteria for desirability, as contemplated in subsection (3);

(e) the proposed development does not impact on existing rights;

(f) The proposed applications for the consolidation are merely for the purposes of rationalising cadastral boundaries and to create integrated precincts –

(i) the scale and design of the development is considered appropriate and based on heritage informants;

- (ii) the resultant building massing will not be increased as a result of consolidation;
- (iii) the consolidations will not impact on surrounding properties.

(g) In terms of other considerations prescribed in relevant national or provincial legislation, which includes the development principles as contained in section 7 of the Spatial Planning and Land Use Management Act, 2013 (Act no. 16 of 2013) and . The following should be noted:

• **Spatial justice**, including the redress of past spatial and other development imbalances through improved access to, and utilisation of, land, whilst also recognising the right of owners to develop land in accordance with current use rights. SDFs and policy at all spheres of government should address the inclusion of persons and areas that were previously excluded.

The proposed development and additional teaching space and student residences will enable access for more citizens to tertiary education and quality accommodation and will assist in achiving the inclusion of persons that were previously excluded.

• **Spatial sustainability**, whereby spatial planning and land use management systems must promote land development that is spatially compact, in locations that are sustainable and limit urban sprawl; and result in communities that are viable.

The proposed infill development within the local area will promote a compact campus, efficient use of land, is at a highly accessible location and will achieve a viable, integrated student community.

• **Efficiency**, whereby land development optimises the use of existing resources and infrastructure, where the availability of residential and employment opportunities in close proximity to, or integrated with, each other is promoted, where a diverse combination of land uses is promoted, as well as the quality and functionality of the public spatial environment.

The proposed densification of development on campus promotes diversity and integration. The proposed upgrades to the urban environment, pedestrian and NMT routes and hard and soft landscaping will improve the quality and functionality of the public spatial environment.

• **Spatial resilience**, whereby flexibility in spatial plans, policies and land use management systems are accommodated to ensure sustainable livelihoods.

The Development Framework and Precinct Plans are merely high level proposals and some flexibility remains for design development, as part of future land use management and heritage approval processes.

• **Good administration**, including an integrated approach to land use planning and transparent processes of public participation.

The Integrated Development Framework is a good example of integrated development, which incorporates heritage, socio-economic, transport, urban design and landscape considerations. A comprehensive and transparent public participation process will be followed – both for the heritage component and the land use component – which will overlap and ensure efficiency.

(h) whether the application complies with the requirements of this By-law.

The various proposals, including the Special Planning Area, Package of Plans, Development Framework and Precinct Plans, rezonings, subdivisions and consolidations comply with the etailed requirements of the MPBL.

Section 99(3) of the MPBL

This subsection requires that the decision maker must consider the extent of desirability of the proposed land use in terms of the criteria listed in this subsection, being:

(a) Socio-economic impact

The densification of campus and additional opportunities for tertiary eduction will have a long-term, positive socio-economic impact. More students in residence at accessible locations and good internet connectivity will enhance their chances of academic success, especially students with a previously-disadvantaged background.

The proposed future construction projects will create empoloyment and the growth in the student population will benefit the local economy of Cape Town.

(b) Compatibility with surrounding uses

The proposed academic, administrative and residential infill developments are entirely compatible with the existing campus environment and with surrounding land uses, immediately beyond campus.

(c) Impact on the external engineering services

The proposed densification will have some impact on engineering services – particularly electricity demand - but it will be managed through more efficient technology and alternative power sources. The same principles apply to the efficient use and recycling of water and attenuating stormwater run-off, so as to reduce downstream impacts.

It should also be borne in mind that

• UCT's campus is located in a mature urban area with well-established municipal service infrastructure available (it is *not* an extension of the urban area) and

• The floor space / bulk of the proposed development is *well* below the current permissible floor space of the study area in terms of the existing CO2 and GR4 zoning. With the exception of the rezoning of a portion of the Astroturf ('Hare's) hockey field, *no* enhanced rights are applied for.

(d) Impact on safety, health and wellbeing of the surrounding community

Additional development and pedestrian movement will create increased activity and surveillance, which will enhance safety and security. The promotion of public transport via the free Jammie Shuttle Service and encouragement of pedestrian and NMT movement will reduce pollution and enhance the health of and wellbeing of students and surrounding community.

(e) Impact on heritage

The Heritage Inventory and the Conservation Framework by Townsend & Abrahamse were the primary informants of the IDF and its development proposals. All five campuses / precincts contain significant heritage resources and through this proactive forward planning process and future scrutiny of more detailed Site Development Plans, heritage impacts will be minimised.

(f) Impact on the biophysical environment

There will be no significant impact on the biophysical environment.

The green network which links the different campuses and the tree-lined avenues are important character elements of UCT and these are to be preserved and enhanced. The proposed infill development will only take place where appropriate. As discussed in section 12, one of the proposal of the Landscape Framework is to implement a programme of 'greening' across campus to improve the environment and improve open space amenity.

An updated Landscape Framework is currently being prepared by UCT's Properties and Services Department and should inform future detailed development proposals.

At development stage, the context of specific sites may require that cognizance be taken of contextual informants, such s the City's Veldfire Related Planning Guidelines (2004) for sites abutting the TMNP.

(g) Traffic impacts, parking, access and other transport related considerations

Whilst a considerable amount of infill development is proposed on campus, these proposals will remain *well* within the permissible development rights in terms of the current zoning, i.e. the aim of this IDF is <u>not</u> to apply for enhanced rights, but to provide more certainty in forward planning.

The Jammie Shuttle, which serves students and staff, is an exemplary initiative by the University to provide equitable and safe transport to and from campus, while at the same time discouraging private car usage.

The Parking Supply Management Plan by ITS Engineers has proposed an appropriate, evidencebased parking ratio for Upper, Middle and Lower Campus. This strategy, in conjunction with UCT's other access and parking management tools, including the desired modal shift away from private vehicle usage and over time, decreasing the demand for parking, will encourage more sustainable transport modes, including public transport and non-motorised transport (NMT). This includes the continuation of the Jammie Shuttle, promoting walking and cycling as transport modes on Campus, and to manage the provision of parking on Campus.

The potential traffic impacts of the development proposals have not been assessed at this high-level planning stage, as the actual occupancies (and associated trip generation and parking requirements) of the proposed development parcels will only be finalised when SDPs or building plans are developed. At that stage, the discretion will lie with the City of Cape Town as to whether or not a Traffic Impact Assessment is required for the larger infill developments.

(h) The imposition of conditions in mitigation of impacts

As with any land use management application, the City may impose any conditions that it may deem necessary and reasonable. In this case, it is envisaged that while the approval of the Development Framework and Precint Plans will provide a degree of certainty to the University with regard to future development, the City (and Heritage Western Cape) may elect to require the submission and scrutiny of more detailed Site Development Plans (SDPs) in the future, where warranted.

The future assessment of SDPs will not only mitigate potential heritage impacts, but also potential traffic impacts of the larger-scale infill developments, as mentioned in subsection (g) above.

It is concluded that the that the decision-making criteria in Sections 99 (1), (2) and (3) of the MPBL have been complied with and that the proposed land uses are desirable.