

# ONTRACK



A modern, white, multi-story building with a red cross logo and the text 'DISTRICT SIX' on its facade. The building has several windows and a colorful mural on the ground floor. A blue sculpture is mounted on the side of the building.

 **DISTRICT SIX**

**HEALTH INFRASTRUCTURE**

## Observatory Forensic Pathology Institute nears completion

**EDUCATION  
INFRASTRUCTURE**

PC Petersen Primary School  
Phase 1 nears completion

**GOVERNMENT  
MOTOR TRANSPORT**

Four-storey GMT office building  
under construction

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### VISION:

Enabled communities leading dignified lives.  
#JUSTdignity.

### MISSION:

To tirelessly pursue the delivery of infrastructure and transport services that is: inclusive, safe and technologically relevant, seeking to heal, skill, integrate, connect, link and empower every citizen in the Western Cape, driven by passion, ethics and a steadfast commitment to the environment and people as our cornerstone.

### EDITORIAL TEAM:

**Editor:** Thabiso Mazosiwe

**Head of Communication:** Jandré Bakker

**Design:** Sylvanus du Plessis and  
Hantie Engelbrecht

**Cover photo:**

**Contributors:** Stephen Heyns, Marion de Vries,  
Herkie Bouwers, Charlton Botha, Daniel J  
Nugent and Morné Jacobs.

### CONTACT THE ON TRACK TEAM:

**Telephone:** 021 483 6966 | **Fax:** 021 483 9851

**Email:** Transport.Publicworks@westerncape.gov.za

**Website:** www.westerncape.gov.za/tpw | **Twitter:** @WCGovTPW

Please send us your feedback and suggestions.

# EDITOR'S NOTE



The Department of Transport and Public Works is committed to continue to share progress made in the maintenance of roads and infrastructure projects in the Western Cape, in spite of the COVID-19 lockdown.

Some projects have had to be stalled during the lockdown, and the completion dates of these projects have been appropriately extended.

Infrastructure development is critical for transforming the provincial economy, for stimulating economic growth, and for creating jobs. In this edition, we feature the good work being done by our Provincial Public Works Branch to provide top-quality health, education and government-owned general infrastructure to residents of the Western Cape.

These projects are specifically planned and executed in a way that advances important socio-economic objectives, including spending specified proportions of contract budgets on targeted contractors, on local labour, and on the training of local labour.

One of the projects, the new District 6 Community Health Centre built to serve the communities of Salt River, Woodstock, Vredehoek, Cape Town city centre and District Six, is almost complete. This 4 400m<sup>2</sup> multi-storey healthcare facility, which is the largest clinic facility to be built within the city centre and which has the capacity to function for extended hours, will cater for approximately 740 people a day.

The R281 million Observatory Forensic Pathology Institute project to replace the Forensic Pathology Services laboratory in Salt River is expected to be complete by the end of 2020. This larger, purpose-built modern facility at the entrance to Groote Schuur Hospital will provide Level 4 forensic services aimed at extracting, analysing and preserving the integrity of evidence for use by the criminal justice system.

The Department has also completed a R124 million architectural project for phased upgrades and extensions to the Vredenburg Hospital to cater for the growing health needs of the

West Coast District. With regard to general infrastructure projects, the Department completed a project to construct a new vehicle parking adjacent to York Road in George in 2019. This R8.4 million project was commissioned for DTPW's Government Motor Transport (GMT) Fleet Operations to serve the transport needs of all the departments working in George and surrounds.

We also feature the state-of-the-art, R51 million PC Petersen Primary School, Phase 1 of which was initially expected to reach practical completion towards the end of April 2020 (school buildings). Phase 2 (sports fields) was expected to reach practical completion at the end of July 2020. However, project completion has been delayed by the lockdown.

Stay at home, if you can. Work from home, if you can. If you are an essential services worker or are venturing out to get essential goods, stick to all the rules of the road and stay safe.

**Thabiso Mazosiwe, Editor**



are used to define the public spaces.

On the different levels, waiting and watching areas are clustered around the central foyer and courtyard which provide different scaled spaces to allow options for people to pause, watch, and tend to children.

The facades of the facility have been designed with robust materials which address the context. The building has an appropriate urban scale, and features site security as well as elements that manage the tough sun and wind conditions of the city centre. The ground plane has been emphasised by providing landscape sidewalks, shade and places to sit and pause, with Caledon and Mount Streets being prioritised as the main pedestrian routes.

# District Six Community Health Centre

The new District Six Community Health Centre in Caledon Street has been built to serve the communities of Salt River, Woodstock, Vredehoek, central Cape Town and District Six.

The 4 400 m<sup>2</sup> multi-storey healthcare facility, which is the largest clinic facility to be built within the city, has the capacity to function for extended hours and will cater for approximately 740 people a day.

The centre comprises of three floors configured as follows:

- Ground Floor: Infectious Disease Unit, Radiology Unit, Emergency Treatment Unit, Reception/Records and Pharmacy around a shared main waiting area.
- First Floor: Chronic Disease Unit and Woman and Child Health Unit.
- Second Floor: Rehabilitation Unit, Oral Health Unit and staff facilities.

The building's design features clear organisation around a central foyer and courtyard, which is orientated towards one of the last remaining heritage buildings of the demolished District Six, namely "Buckingham Lodge", also known as the Old Nurses' Home.

The courtyard is terraced up towards the Old Nurses' Home. Large established trees and a new planted courtyard and roof garden provide a visual focus point around which the facility is organised.

The high-volume foyer allows for light and ventilation to this primary public space. Here members of the public can orientate themselves, circulate, and access the various departments of this community health centre.

Natural materials, such as timber, natural light, and warm colours

## Important design considerations included:

- The public, institutional and social memory of the site;
- The role of the site and remaining heritage fabric which acknowledges the historic role of this building as a public healthcare institution and public landmark in District Six;
- The developable area being restricted, due to the existing built-up nature of the urban block, and due to setbacks required to existing heritage buildings and features;
- The natural topography of the site having steep slopes and the elevation of the site providing views over the city centre towards Signal Hill and southward up to Table Mountain; and
- The highly specific nature of the user-client brief, based on the organisational and programmatic criteria for clinics which have been established over the last five years.



# Vredenburg Hospital upgrades completed

The Department of Transport and Public Works has completed a R124 million architectural project for phased upgrades and extensions to the Vredenburg Hospital to cater for the growing health needs of the West Coast District.

The final phase of the architectural project for the new surgical, paediatric and services complex focused on two primary objectives: a naturally lit interior, and the development of a super-form and a sub-form for the Vredenburg Hospital. Super-form refers to a large-scale physical framework that sets up a building's relationship with a city, the outdoor spatial system, and large-scale circulation through the building. The sub-form in this case is many internal cellular rooms which can be changed without a substantial effect on the super-form. Phase 1 of the project for the Western Cape Department of Health included site works, upgrades to existing clinical and support service facilities, new staff accommodation, and a new administration building.

Phase 2 included work on the administration building, theatre complex, sterilisation unit, laboratory, mortuary, a 12-bed temporary paediatric unit, and support services (kitchen, cleaning, refuse, and laundry).

The project made use of labour-intensive methods that provided a limited number of short-term work opportunities and skills training for local people. R8.6 million was spent on targeted enterprises and R4.5 million on local labour. In addition, local

people also benefited from on-site skills training opportunities.

Work on the project was done in a way that did not interrupt valuable health service delivery. The upgraded hospital accommodates 80 inpatients.

## Design features

- The multifunctional roof allows full daylight into all areas of the hospital complex.
- A primary services corridor was developed above a line of service rooms (ablutions, stores, sluice rooms, etc.) and adjacent to the primary circulation corridor below. This allowed the main circulation to be naturally lit, while keeping the services corridor easily accessible.
- The roof lights were designed to separate light and heat. They have reflective baffles inside which allow direct sunlight through in winter, but only reflected light in summer. The outer layer of glass encloses a ventilated void which allows heat to escape. The design of the roof lights allows enough daylight into the hospital during the day for people to work comfortably without electrical light 80% of the time (daylight autonomy = 80%).
- The roof is shaped as a series of undulating bays, corresponding in size with a typical ward width. The roof lights run along the centre line of each bay. When primary access doors are located under the roof light and service doors are located away from the primary light points, then users can easily interpret spaces with multiple doors.

# Observatory Forensic Pathology Institute nears completion

The R281 million Observatory Forensic Pathology Institute which will replace the Forensic Pathology Services laboratory in Salt River is expected to be complete during 2020.

This larger, purpose-built modern forensic pathology facility is being built at the entrance to Groote Schuur Hospital by the Department of Transport and Public Works.

Once completed, the Institute will provide Level 4 forensic services aimed at extracting, analysing and preserving the integrity of evidence for use by the criminal justice system.

This three-storey facility will enable better integration of the work of provincial Forensic Pathology Services and the

National Health Laboratory Service, coupled with facilities to support University of Cape Town (UCT) academic training in the field.

The end result will be an efficient and functional building for the Western Cape Department of Health with low life-cycle building costs.

The facility will include 26 autopsy tables – four dissection suites with six tables each, as well as two teaching and training dissection suites.

There will be 360 refrigerated body spaces: 180 admission fridges, and 180 dispatch fridges. In addition, the building will be able to accommodate 100 visitors to the bereavement centre as well as ten waiting undertakers per day.

The new facility will will facilitate the training of trainee specialists at the UCT Medical School and will accommodate 20 students at a time.

The design incorporates natural light through glazed autopsy rooms and a courtyard that allows light deep into the working areas. The public areas have been designed to create a tranquil environment focused around outdoor green spaces.

The project makes use of labour-intensive methods that provide a number of short-term work opportunities and skills training for local people.

To date, R603 800 has been spent on targeted enterprises, R121 400 on targeted suppliers, and R100 000 on targeted local labour.





An annual publication that demonstrates the Western Cape Government's commitment to managing and improving the efficiency, effectiveness and sustainability of its property holdings.

Issue No. 8.

## Portfolio breakdown



**39 = 214 506m<sup>2</sup>**  
buildings



**28** Owned buildings

**15** Non-CBD

58 973m<sup>2</sup>

**11** CBD

82 484m<sup>2</sup>

**2** EXCLUDED\*

3 469m<sup>2</sup>



**11** Leased buildings

**03** Non-CBD

7 415m<sup>2</sup>

**08** CBD

62 165m<sup>2</sup>

\* 1 currently under modernisation

\* 1 excluded due to complex and unverifiable data (under review)

## Key performance indicators

### Electricity



The Portfolio is **35% more efficient** than the private sector



Owned buildings are **29% more efficient** than leased buildings

### Energy



**2%**

of the total energy consumption in the portfolio is generated by our Solar PV Plants

### Water



Consumption **reduced by 9%** from last year

Consumption has **improved by 30%** over the past 3 years

The portfolio is performing **33% better** than the private sector

Our owned buildings were **36% more efficient** than the leased buildings

### Space



The portfolio **improved its space utilisation** by 10%

**15m<sup>2</sup>/desk**

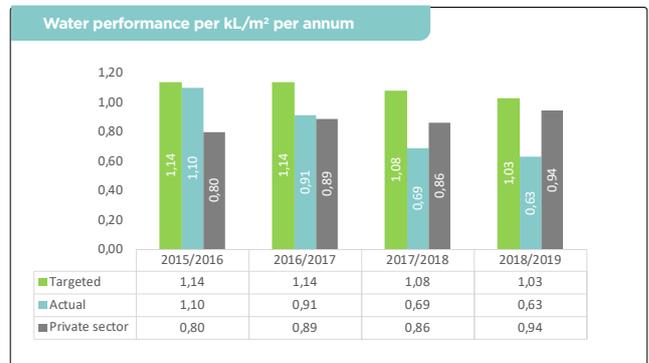
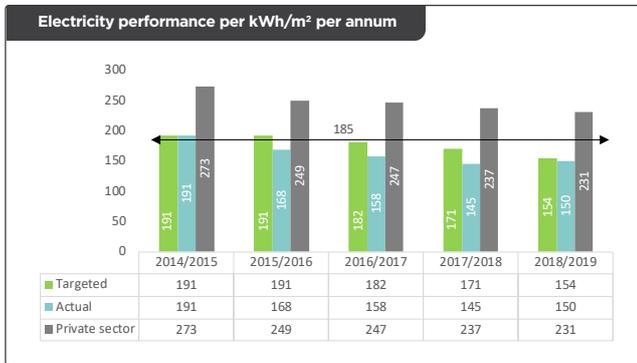
CBD owned buildings achieved the **15m<sup>2</sup> per desk** target

Space utilisation across the portfolio has **improved by 37% since 2016/17**

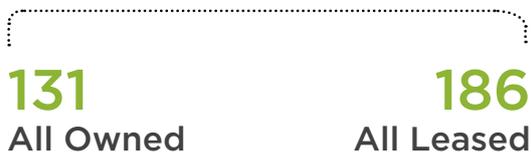
	2017/2018						2018/2019					
	All WCG offices	All leased buildings	All owned buildings	CBD offices	Non-CBD offices	Private Sector	All WCG offices	All leased buildings	All owned buildings	CBD offices	Non-CBD offices	Private Sector
WC portfolio net area	215 245	72 155	143 090	145 388	68 290	-	214 506	69 580	144 926	148 118	66 388	-
WC portfolio performance data	211 776	72 155	139 621	143 486	68 290	-	211 037	69,580	141 457	144 649	66 388	-
Accommodated office staff	9 949	3 693	6 256	6 900	3 049	-	11 168	3 633	7 535	7 902	3 266	-
Cost R/m <sup>2</sup>	3 807	2 953	4 291	4 336	2 636	2 691	3 097	2 842	3 222	3 205	2 861	2 907
Cost R/FTE*	81 640	57 697	93 285	92 351	57 401	-	59 716	55 187	61 921	58 669	62 437	-
m <sup>2</sup> /FTE	23	20	22	20	26	-	19	19	19	18	22	-
m <sup>2</sup> /Desk	19	17	20	18	21	15	17	17	17	16	20	15
Energy kWh/m <sup>2</sup> /pa	145	194	118	169	96	236	150	186	131	177	90	R231
Water kL/m <sup>2</sup> /pa	0,69	1,03	0,50	0,72	0,95	0,86	0,63	0,73	0,47	0,54	0,76	0,94

\* FTE = full-time equivalent.

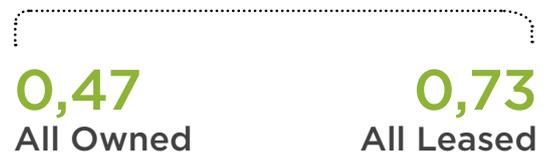
## Environmental Performance Summary



### Electricity Performance against Private Sector Benchmark



### Water Performance against Private Sector Benchmark





**Overall improvement in space efficiency**

**Space efficiency of 17m<sup>2</sup> per desk**

**Office Modernisation Programme remains on track**

**Desk/Space utilisation in completed Modernisation projects improved by 27%**



**Approximately 1 200 additional staff**



**Total electricity consumption per kWh/m<sup>2</sup>/pa increased by 3,4%**



**The portfolio currently outperforms the industry benchmark by 19%.**



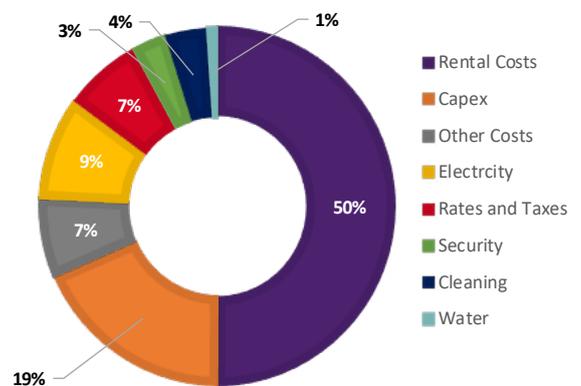
**3 Dorp Street is the first building in the Cape Town CBD to make use of blackwater.**

**The portfolio also outperforms the private sector benchmark by 35%.**



**This edition separates the performance of CBD and non-CBD buildings, as well as owned against leased buildings.**

**Percentage breakdown of main cost items**



**19%**  
**Total cost decreased**

## Case Study: **Rooftop solar photovoltaic systems**

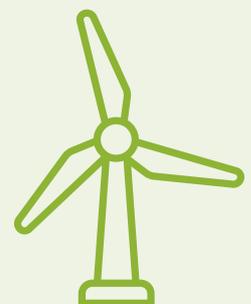


**10-year simple average payback period**

3 888 MWh/year savings

R3 648 084 minimum savings/year

The lowest pay back period is 8.1 years



## **Other benefits**



The provision of skills training in renewable energy technologies.



Targeted procurement from small- and medium-sized enterprises.

# Case Study: 3 Dorp Street

The modernisation of the Department of Environmental Affairs and Development Planning (DEA&DP) building at 3 Dorp Street has been one of the most ambitious projects undertaken in the DTPW efficiency and sustainability programme. This jewel in the crown of the WCG office portfolio features exemplary creative and sustainable redesign. The project sets an impressive precedent for other buildings in the Cape Town CBD to follow.

The renovation process was undertaken in one tranche rather than the phased, floor-by-floor approach that has been used in other WCG modernisation projects. All DEA&DP staff were decanted to other CBD office accommodation for the duration of the project - between October 2017 and February 2019.

The result is a building complex with a plethora of world best practices and innovations presented through a beautiful architectural design. The external façade and the building's unique sunscreens have been featured in the opening credits of DSTV's popular cooking show "Kokkedoor". It is fast becoming an iconic corner of Long Street for tourists and locals.

Some ways in which this building is leading the way are shown below.



## Energy efficiency

Heating, ventilation and air-conditioning is regulated through a building management system that is tuned for current seasonal temperatures. This helps to optimise electricity usage.

Double-glazed windows work with the bespoke designed sunscreens to significantly reduce the building's heat gain during the day.

The building is fitted with motion sensors that turn the lights off in spaces that are not being used.



## Workplace design

Great care was taken in the design of staff workspaces. The result is a perfect balance between space optimisation and employee comfort in accordance with the Occupational Health and Safety Act and National Building Regulations and Building Standards Act.

The new standard design enabled an increase in the workspace capacity of almost 30%. Before modernisation, the desk space of a work station was 13m<sup>2</sup>. After modernisation, space per desk stands at 10m<sup>2</sup>.



## Water recycling

This is currently the only building in the CBD that recycles blackwater (sewerage water). An estimated 1 million litres per annum is captured from this single building. Any water that is not re-used for the flushing of toilets is rerouted to the lush, rooftop garden.

This is currently the only building in the CBD that recycles blackwater.

# Case Study: Remote metering case study

## Installed meters

# 792

meters in place at the time of publication

- 627 live remote electricity meters
- 123 water meters
- 8 pressure meters
- 34 solar PV meters

The auto-alert system automatically sends email notifications to the DTPW maintenance call centre and, in some cases, selected officials who can resolve the issue at hand. Alerts include:



Water flowing at night

Abnormally high electricity consumption

Abnormally high water consumption

Warnings that a solar PV system is offline



Western Cape Government

Department of Transport and Public Works  
Head Office, 9 Dorp Street, Cape Town, 8001.  
Tel: 021 483 9705  
[www.westerncape.gov.za](http://www.westerncape.gov.za)

# PC Petersen Primary School

## Phase 1 nears completion

The Department of Transport and Public Works expects Phase 1 of the state-of-the-art, R51 million PC Petersen Primary School (school buildings) in Kylemore near Stellenbosch to reach practical completion towards the end of 2020, if everything goes according to plan. The practical completion of Phase 2 (the sports fields) will follow. This project for the Western Cape Education Department will reduce pressure on the existing school facilities by accommodating more pupils in a safe environment that is highly conducive to teaching and learning.

This new school, which replaces an existing 580-learner school on the same site, will be able to accommodate 620 learners, with potential for future expansion should the need arise.

The hall is designed to accommodate 1 240 people, in anticipation of later expansion.

The school buildings feature materials and methods that remain the most economical, durable, and low-maintenance system of building. They comprise a combination of standard plastered and painted stock brick construction and strip footings, face brick infill panels, a Klip-Lok steel roof, concrete columns and beams, as well as steel trusses in the hall.

The replacement school consists of:

- 16 standard classrooms (including 2 for Grade R);
- 1 science laboratory;
- 1 multi-purpose classroom;
- 1 multi-media classroom;
- 1 hall with a feeding kitchen and toilet facilities;
- An administration building;
- Caretaker facilities;
- A soccer/ rugby sports field; and
- 2 physical training slabs for netball and related activities.

The design makes provision for after-hours community use through providing easy

access to the hall, multimedia room and parking area without compromising the security of the classrooms and learner ablutions.

This construction project exceeded its empowerment targets. It created 95 job opportunities, largely for young people (70.5% youth opportunities, 7.35% women, and 7.26% for disabled people). Twelve skills training initiatives were created through the project. A total of 12% (R6 million) of the project cost was spent on targeted small, medium and microenterprises (SMMEs), 3.5% (R1.8 million) went to targeted suppliers and manufacturers, and 5% (R2.5 million) was spent on targeted local labour.

These world-class learning and teaching facilities will undoubtedly contribute to improved education outcomes in Kylemore and surrounds while providing a facility that will also be of wider community benefit.



# Four-storey GMT office building under construction

The Department of Transport and Public Works is beginning the construction of a new multi-storey office building in 3 Rusper Street, Maitland, Cape Town, at a total estimated cost of R94 million. The new building is Phase 2 of the project to centralise all Government Motor Transport (GMT) operations from three locations: Roeland Street and Hope Street (central Cape Town) and Paarden Eiland. Phase 1 of this development (items 1 and 2 on the locality plan) currently accommodates 115 staff members. When Phase 2 is complete, the entire GMT Cape Town staff complement of 129 will be working from the same place.

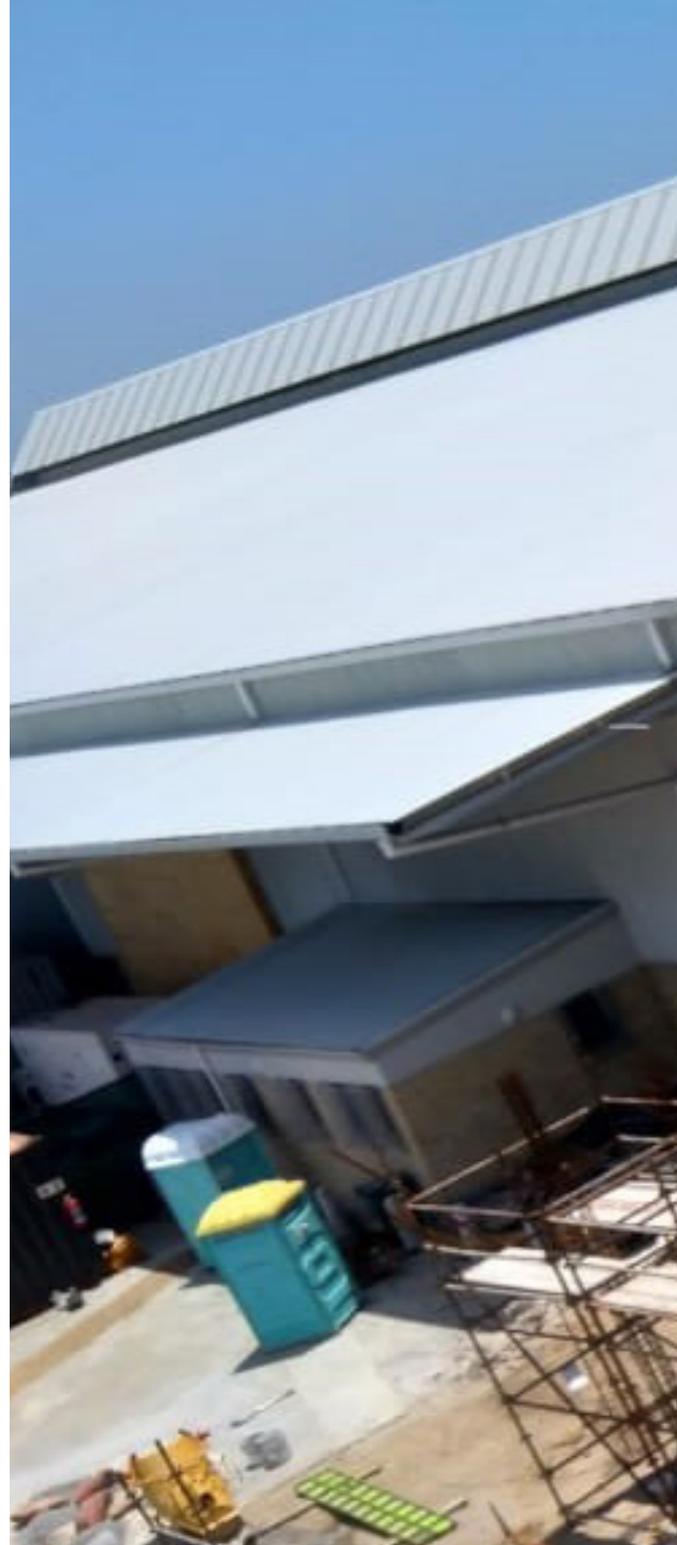
A Passenger Rail Agency of South Africa (PRASA) site adjacent to the GMT facility in Maitland was identified as a place which could be developed into parking for another 430 cars. The PRASA site was initially inaccessible, but an offer was received from a company called CPM to provide vehicular access through its premises to the PRASA site from Voortrekker Road (item 3 in the locality plan). Leases were duly secured with PRASA and CPM and the site became available to GMT from December 2019.

A road widening application for the intersection of Rusper Street and Voortrekker Road has been approved by the City of Cape Town to alleviate expected congestion once the GMT office block is complete (item 4 in the locality plan).

A total of 998 parking bays will be available once the GMT facility is complete:

- 478 bays in an existing warehouse (item 5 in the locality plan);
- 59 external bays (during construction) (item 6);
- 431 bays at the PRASA site (item 7); and
- 30 external bays (after construction) (item 8).

## GMT - Locality plan reference overview







## New GMT parking in York Street, George

The Department of Transport and Public Works completed a project to construct new parking bays adjacent to York Street in George in 2019. This R8.4 million project was commissioned for Government Motor Transport (GMT) Fleet Operations to service all the departments which use GMT transport in George and surrounding areas.

The 160 new bays comprise a base of 60 mm concrete interlocking blocks; shade net covering over all parking bays; a security fence around the entire parking area; a vehicle boom entrance with access control; additional security gates for vehicles and pedestrians; closed circuit television (CCTV) cameras and a monitoring facility; and electric lights throughout the facility.

The Department is committed to creating short-term Expanded Public Works Programme employment and skills training opportunities in its projects. During the course of this project, approximately 40 local labourers were employed by the contractor.



# Water saving starts with you!



## **Take short showers and shallow baths**

A quick shower or a shallow bath is all that you need to save bucket loads of water.



## **Re-use your water**

Water from your bath or shower can be collected in buckets and used to water the garden.



## **Reduce the flow of water**

Turn taps on to a gentle medium setting rather than full blast.



## **Don't let the water run**

Turn off taps when brushing your teeth, washing your hands and shaving.



## **Dirty car, clean conscience**

If you must rinse your car, use a bucket of water rather than a hosepipe.



## **Keep your yard clean and dry**

Sweep outside areas instead of hosing them down with water.

**For more information visit: [www.h2ohero.co.za](http://www.h2ohero.co.za)**



Western Cape  
Government

BETTER TOGETHER.

Changing our habits so that we can  
reduce our water footprint

**BETTER TOGETHER**

# We are offering YOU a chance to build a better future with our Masakh'iSizwe Bursary Programme

## What is the Masakh'iSizwe Bursary Programme about?

At the beginning of 2006, the Western Cape Government Transport and Public Works established the Masakh'iSizwe Bursary Programme. The vision is to make cohorts of professionals in engineering and built environment fields critical to the growth of the economy available to the province, the country and continent of Africa. These professionals are characterised by excellence in learning, citizenship and service.

## Which bursaries are offered through the Masakh'iSizwe Bursary Programme?

Masakh'iSizwe offers bursaries for studies towards a degree or diploma in the transport, engineering and built environment discipline:

- Architecture
- Construction Management
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering
- Quantity Surveying
- Town and Regional Planning
- Transport Economists
- Economists
- Geomatics
- Property Studies

## What does the bursary cover?

- Tuition fees
- Support programmes
- All prescribed books and materials
- Accommodation and meals (or transport costs)

## Where can the bursaries be taken up?

- University of Cape Town
- Cape Peninsula University of Technology
- Stellenbosch University

## Will I have to pay anything back?

The bursaries are offered on a work-back basis. In other words, you will have to work in the public service for one year for every year you have received a bursary. During your studies, you will also need to:

- Attend workshops, events and meetings
- Partake in outreach programmes; and
- Undertake academic experiential training

## Who can apply for a bursary?

- A South African citizen
- Students accepted at the relevant tertiary institutions
- Preference will be given, but not limited to:
  - Persons with disabilities, the financially disadvantaged, female learners and applicants from rural areas of South Africa

## How do I apply?

The closing date for applications is 30 September every year. Application forms can be requested from:

Lazola Mtongana  
Stakeholder Relations  
Tel: 021 483 9545/0964 | Cell: 081 040 6562 | Email: Lazola.Mtongana@westerncape.gov.za  
Address: 17th floor, 9 Riebeeck Street, Atterbury House, Cape Town, 8001

**You can also download the application form at:**

[www.westerncape.gov.za](http://www.westerncape.gov.za)



Apply now and we can help make your future **BETTER TOGETHER.**



Western Cape  
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