LAND USE PLANNING REPORT					
APPLICATION FOR REZONING AND SUBDIVISION OF REMAINDER ERF 464, GEORGE					
Reference number	3870616	Application submission date	2025-10-13	Date report finalized.	2026-02-27

PART A: AUTHOR DETAILS	
First name(s)	Khuliso
Surname	Mukhovha
Job title	Town Planner
SACPLAN registration number	A/2119/2015
Directorate/ Department	Planning and Development
Contact details	044 801 9447

PART B: APPLICANT DETAILS				
First name(s)	Mark			
Surname	Job			
Company name	Jono Trust Professional Planners for George Municipality			
SACPLAN registration number	Not provided.	Is the applicant authorized to submit this application?	**Y**	N
Registered owner(s)	George Municipality			

PART C: PROPERTY DETAILS						
Property description (in accordance with Title Deed)	Remainder Erf 464, George (Metro Grounds Bus Depot)					
Physical address	Remainder Erf 464, George - close to Metro Grounds housing development.		Town/City	George		
Current zoning	Undetermined.	Extent (m^2/**ha**)	223,2 ha.	Are there existing buildings on the property?	**Y**	N

Applicable Zoning Scheme	• George Integrated Zoning Scheme By-law, 2023 (also "Zoning Scheme")			
Legislation and Spatial Plans	• Spatial Planning and Land Use Management Act, 2013 (also "SPLUMA"). • Western Cape Land Use Planning Act, 2014 (also "LUPA"). • Land Use Planning By-law for George Municipality, 2023 (also "Planning By-law"). • The Western Cape Provincial Spatial Development Framework (also "PSDF"). • George Municipal Spatial Development Framework, 2023 (also "MSDF"). • George South-East Local Spatial Development Framework, 2015 (also "LSDF").			
Current Land Use	• Vacant & utility services (electricity sub-station).	Title Deed number and date	• GEQ15-15/1922	
Any restrictive title conditions applicable?	Y **N**	If yes, list condition number(s)	N/A	
Any third-party conditions applicable?	Y **N**	If yes, specify	N/A	
Any unauthorised land use/building work?	Y **N**	If yes, explain	N/A	

PART D: PRE-APPLICATION CONSULTATION (ATTACH MINUTES)

Has pre-application consultation been undertaken?	**Y** N	See Annexure E			
Reference Number	3874784	Date of consultation	2025-10-01	Official's name	Khuliso Mukhovha/ Naudica Swanepoel

PART E: LIST OF APPLICATIONS (TICK APPLICABLE)

a. Rezoning	**X**	b. Permanent departure		c. Temporary departure		**d. Subdivision**	**X**
e. Consolidation		f. Amendment, suspension, or deletion of restrictive conditions		g. Permissions required in terms of the zoning scheme		h. Amendment, deletion, or additional conditions in respect of existing approval	
i. Extension of validity period		j. Approval of an overlay zone		k. Phasing, amendment, or cancellation of subdivision plan		l. Permissions required in terms of conditions of approval	
m. Determination of zoning		n. Closure of public place		o. Consent use		p. Disestablish an owner's association	
q. Rectify breach of Homeowner's Association		r. Reconstruct building of non-conforming use		Other			

PART F: APPLICATION DESCRIPTION

Consideration of the following applications applicable to Erf 464, George:

a) **Subdivision** in terms of Section 15(2)(d) of the Land Use Planning By-law for George Municipality, 2023 into three potions, being Portion 1 (±4,53 ha), Portion 2 (±1,00 ha) and Remainder Erf 464, George.
b) **Rezoning** in terms of Section 15(2)(a) of the Land Use Planning By-law for George Municipality, 2023 of Portion 1 from "Undetermined Zone" to "Transport Zone I".
c) **Rezoning** in terms of Section 15(2)(a) of the Land Use Planning By-law for George Municipality, 2023 of Portion 2 from "Undetermined" to "Transport Zone II" applicable to Portion 2 of Remainder Erf 464, George.

PART G: LOCATION

The relevant portion of Remainder Erf 464, George (hereafter also "subject property / site") located at the intersection of P.W Botha Boulevard and Ossie Urban Road in George Industria. Metro Ground Residential development is found on the eastern side of the site. The property is found on the eastern side of York Street and on the northern side of the N2 Highway. **Figure 1** below illustrates the locality and aerial cadastral context of the site.

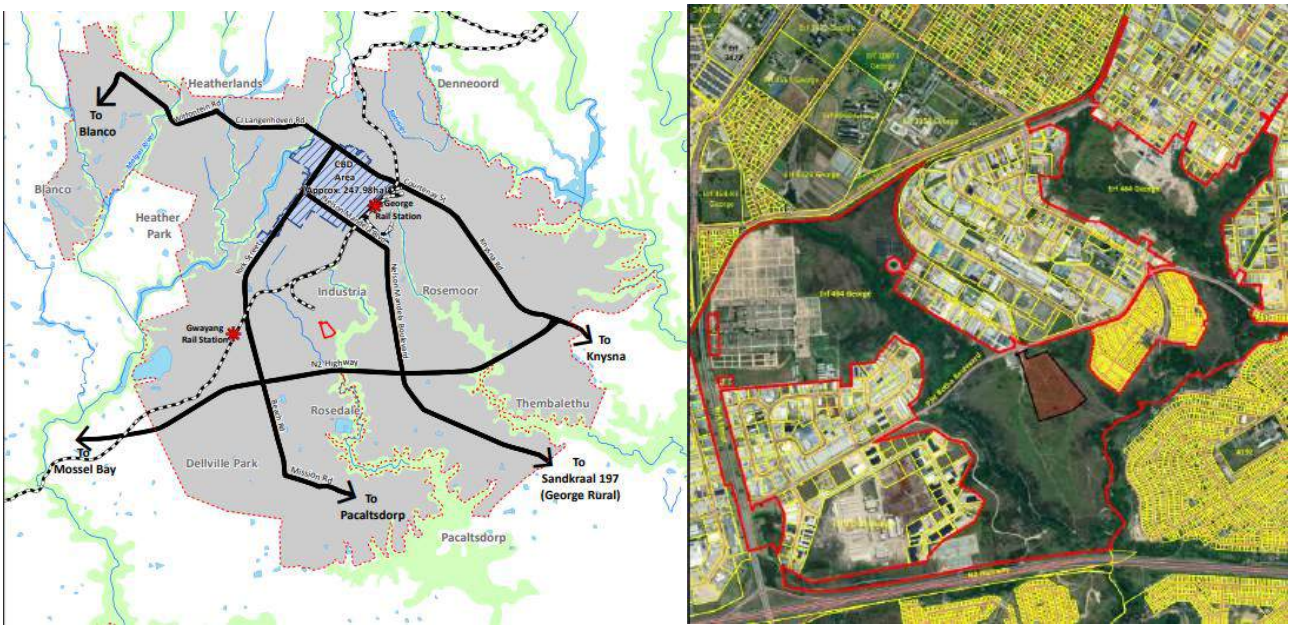


Figure 1: Location of the site in George Industria

PART H: BACKGROUND AND HISTORY

- Erf 464, George is the "parent property" of the town of George, owned by the Municipality (unless sold by Council), on which multiple municipal projects take place.
- From the onset, it should be noted that the proposed bus depot forms part of the broader Metro Grounds Mixed-Use Development, which comprises industrial and educational land uses.
- Owing to the outstanding Environmental Authorisation for the broader development, it was resolved that the bus depot component be separated from the main application. This decision was informed by the availability of a conditional grant for the bus depot that must be expended within a specified timeframe.
- The George Integrated Public Transport Network, with the bus service branded as Go-George, was conceptualized in 2003 as part of the Sandkraal Road Corridor Mobility Strategy (Aboo, Robertson, 2016; Municipality of George and Eden District Municipality, 2008). Rooted in the 1996 National White Paper and the 1997 Provincial White Paper on Transport, the initiative aimed to provide safe, reliable, efficient, and sustainable transport solutions aligned with economic and social development goals.
- Subsequent policy developments, including the National Land Transport Act (NLTA) of 2009, defined Integrated Public Transport Networks (IPTN) and responsibility for public transport services assigned to local municipalities, supported by national and provincial governments (White Paper, 1996: Provincial White Paper, 1997; NLTA – Act 5 of 2009).

- Given George Municipality's limited financial and organizational capacity as a non-metro municipality, the project relied on institutional and financial support from the Western Cape Provincial Government through an Inter-Governmental Agreement (IGA), as well as funding support from both provincial and national government.
- Go-George, operational for more than a decade since its December 2014 launch, has steadily expanded to cover approximately 75% of the George urban area. Phases 5 and 6, remain to be implemented. Passenger numbers have grown significantly, requiring infrastructure expansions, the bus depot amongst others. It is expected that with future expansions, there will be a need for large bus depots to store additional buses and staff.
- In 2008, the George Council resolved that a portion of Remainder Erf 464, George should be designated for the development of a bus depot.
- Sharples Environmental Consultants commissioned an environmental impact study. The Environmental Authorisation (Record of Decision) was granted on 10 November 2010. Subsequently, an application for amendment of the Environmental Arborisation (EA) was submitted to the competent authority and approved on 04 August 2013 (extension of validity period).
- On 19 September 2011, WM De Kock Associates submitted a rezoning and subdivision application of a portion of Remainder Erf 464, George (the subject property) for purposes of developing a bus depot.
- The erf file of the subject property was inspected; however, decision of the rezoning and subdivision application could not be found. It should be noted that this decision does not have material impact to the subject application.
- Due to non-implementation, the developer applied for further extension of time for the EA which was issued on 20 October 2020 and valid until 04 September 2025.
- The said development was not implemented due to financial constraints and further extension was requested and granted on 11 July 2025.
- Consequently, the subject application was submitted by Jono Trust Town and Urban Planning Environmental Design for consideration.
- The application includes the creation of a public street. However, the applicant did not include the street name in accordance with Section 98 of the Planning By-law. Consequently, the street naming process will be addressed through the main application, which is currently in the public participation phase. It should be noted that street names for the overall development have already been proposed (including the subject public street), and the GIS Section will submit these to Council for consideration and approval in due course.
- Notwithstanding Section 98 of the Planning By-law, this application will still be considered on its merits. Should this application be approved, a note will be included that the final SG diagram for the road portion reflecting the approved street name must be submitted to the Municipality for endorsement prior to its approval by the Surveyor General's Office.
- It is now the intension of the developer to solicit approval for rezoning and subdivision of the subject property for the purposes of developing a bus depot with associated infrastructure including an access-controlled entrance, administrative offices, workshop and maintenance, bus wash and refuelling bays, 192 bus parking bays, 27 sprinter bus parking bays, 62 staff vehicle parking bays and 6 repair parking bays.
- It should be noted that the layout has been amended to accommodate the current need of the bus depot, however the land uses remain the same.

PART I: SUMMARY OF APPLICANT'S MOTIVATION

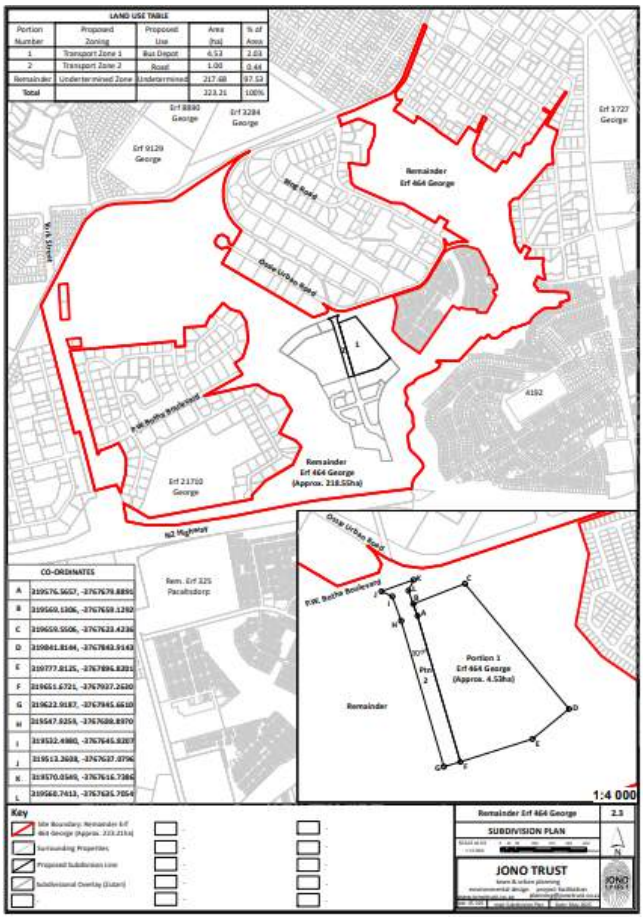
The applicant's motivation report can be summarised as follows:

Note: The text in italics did not form part of the applicant's memorandum(s) and is merely for explanation or commenting purposes by the author.

DEVELOPMENT PROPOSAL

- It is the intension of the developer to rezone the subject property from "Undetermined" to "Subdivisional Area" in order to Subdivide the Subdivisional Area into Portion 1, 2 and Remainder Erf 464, George for the purpose of developing a bus depot and a public street.

- The main objective of the application is to facilitate the relocation of the Go George bus depot from Erf 3471 (3472) within the CBD to a portion of the subject property in George Industria.
- The relocation is intended to release a strategically located municipal property within the CBD for social housing and residential intensification, establish an appropriately zoned and serviced erf for transport operations and formalise access via a new public road from PW Botha Boulevard.
- The application includes the subdivision of Remainder Erf 464, George into three portions to accommodate the bus depot, a public street and undetermined use zone (Remainder Erf 464, George).
- The proposed development complies with all applicable land development parameters. No departures are required in respect of coverage, height, floor factor or building lines.
- The development will constitute the following land uses as indicated on **Figure 3**:
  - Administrative offices (±945m²)
  - Workshop and maintenance facilities (±1,153m²)
  - Bus wash and refuelling infrastructures.
  - 192 bus parking bays.
  - 27 sprinter parking bays
  - 62 staff parking bays
  - 6 repair bays.
  - Controlled access from a proposed 30m wide road reserve.



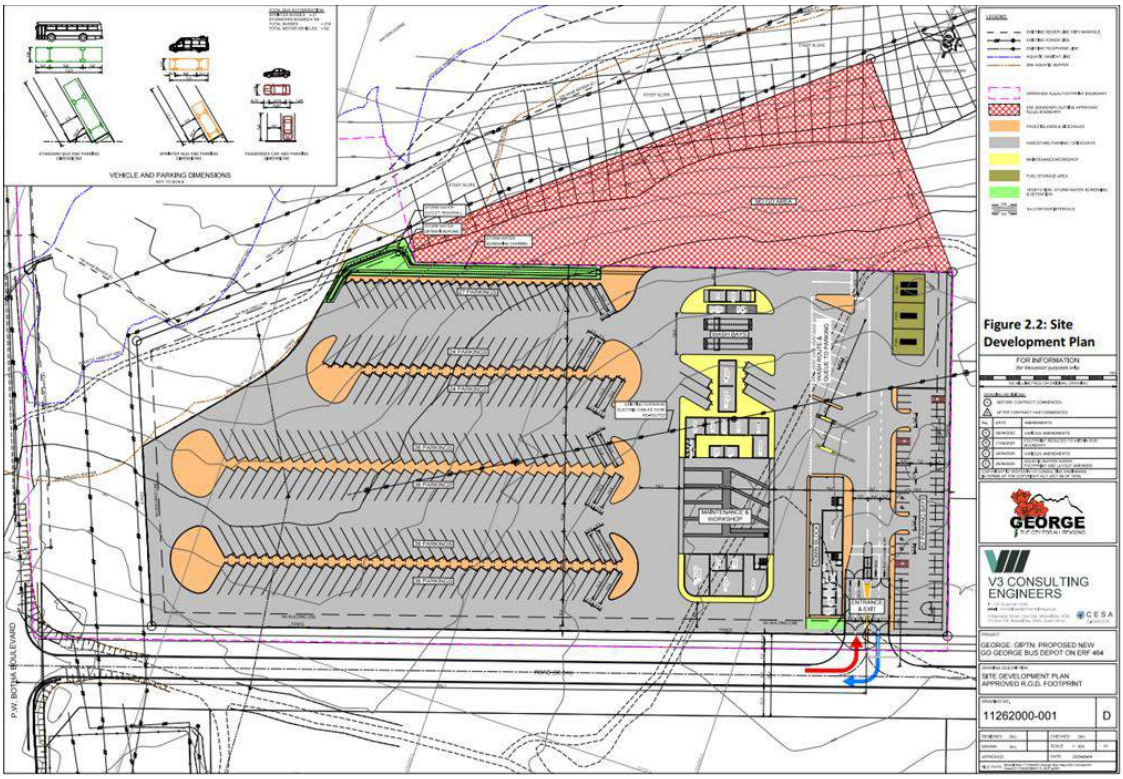


Figure 3: Bus depot site plan and subdivision plan

- The development footprint represents a low coverage relative to the overall extent of the parent property and is appropriately located outside environmentally sensitive areas.
- The land development process to establish the Metro Ground Industrial development is currently being undertaken by Zutari on behalf of the George Municipality.
- Although the Metro Gound Industrial Development anticipates the location of a bus depot on the subject property, its land use application excludes this proposal.

POLICY CONSIDERATION

- The proposal is consistent with applicable spatial planning frameworks: the PSDF, MSDF and LSDF, in that the relocation of the existing bus depot along York Street supports spatial restructuring and urban integration, densification within the urban edge, efficient public transport operations and appropriate location of transport infrastructure within an established industrial area.
- The application aligns with the development principles contained in SPLUMA and LUPA, particularly in relation to spatial justice, sustainability, and efficiency.

ENVIRONMENTAL AND HERITAGE COMPLIANCE

- Environmental Authorisation was originally granted in 2010 under the National Environmental Management Act (NEMA) and remains valid until September 2028.
- The proposal takes into consideration a 29m river buffer along Skaapkop River and it avoids development within environmental sensitive areas.
- The proposal complies with the heritage requirements in terms of the National Heritage Resource Act.
- No environmental or heritage constraints prohibit approval.

ENGINEERING AND TRAFFIC ASSESSMENT

- The Traffic impact assessment confirm that the proposed 30m-wide access road is adequate.
- Signalisation of the PW Botha Boulevard / Ossie Urban Road intersection is recommended, and access spacing complies with the acceptable standards.
- Engineering reports confirm that there is adequate bulk services capacity, feasible water and sewer connections, sustainable stormwater management proposals and no electricity supply constraints.
- No infrastructure-related impediments have been identified.

IMPACT ASSESSMENT

- The site is located within an established industrial context and is separated from residential areas by topography and distance.
- The proposal is compatible with surrounding land uses and zoning, will not adversely affect neighbouring property rights and does not require removal of restrictive title deed conditions.
- As a result, impacts are considered minimal and manageable.

PART J: SUMMARY OF PUBLIC PARTICIPATION

Methods of advertising				Date published	Closing date for objections
Press	**Y**	N	N/A	30 October 2025	01 December 2025
Gazette	Y	**N**	N/A	N/A	N/A
Notices	**Y**	N	N/A	29 & 30 October 2025	01 December 2025 & 29 December 2025 for external Departments.
Website	**Y**	N	N/A	30 October 2025	01 December 2025
Ward councillor	**Y**	N	N/A	25 February 2026	25 March 2026
On-site display	**Y**	N	N/A	30 October 2025	01 December 2025
Community organisation(s)	Y	**N**	N/A	N/A	N/A
Public meeting	Y	**N**	N/A	N/A	N/A
Third parties	Y	**N**	N/A	N/A	N/A

Other	Y	N	If yes, specify	N/A					
Total valid objections				No objections received.			Total invalid objections and petitions		0
Valid petition(s)	Y	**N**	If yes, number of signatures	N/A					
Community organisation(s) response	Y	**N**	N/A	Ward councillor response			Y	**N**	N/A
Total letters of support	None								
Was the minimum requirement for public participation undertaken in accordance with relevant By-law on Municipal Land Use Planning By-law and any applicable Council Policy								**Y**	N

No condonation was required.

PART K: SUMMARY OF OBJECTIONS / COMMENTS DURING PUBLIC PARTICIPATION

Comments and/or objections received with the applicant's response are summarised as follows:

Three (3) responses were received from interested and/or affected parties during the prescribed public participation period. The first response was from the Department of Environmental Affairs and Development Planning – Development Management (DEADP), the second response was from Department of Infrastructure (DoI), and the third comment was from the Department of Agriculture. It is important to note that the comments received from the Department of Infrastructure was in relation to the existing Bus Depot located on Erf 3472, George. The comments received can be summarised as follows:

Department of Environmental Affairs and Development Planning

- The Department acknowledges the application and it content.
- The Department notes that there are specific environmental aspects on the property that would have to be addressed, such as the entire site being classified as a Critical Biodiversity Area (CBA1) and has formally been done in terms of the National Environmental Management Act, 1998 with the relevant authorities. It further notes that the original Environmental Authorisation issued on 10 November 2010 has been extended numerous times and is currently valid until September 2028.
- Lastly, the Department states that it has no further comment on this development proposal from a Provincial Regulatory Land Use Planning point of view, provided that their comments are considered during the evaluation of the application.

Department of Infrastructure

- Proclaimed Provincial Main Road 349 (MR00349; York Street), for which George Municipality is the Road Authority and this Branch the Approving Authority in terms of Roads Ordinance 19 of 1976, is affected by this application. Only upon receipt of George Municipality's Department Roads' positive comments to support and approve (in terms of Roads Ordinance 19 of 1976) this application, will this Branch respond accordingly.

**Based on the discussion with the applicant, the Department's comments are related to Erf 3472, George where the current Bus Depot is located (along York Street) and thus, not relevant to the application at hand.*

Department of Agriculture

- The Department has no objection to the proposed application.

PART L: SUMMARY OF APPLICANT'S REPLY TO OBJECTIONS

Applicant's reply to comments can be summarised as follows:

The applicant responded only to the comments from the Department of Infrastructure, stating that the Department's remarks were based on an incorrect property description (Erf 3472, George, which is the current bus depot). The applicant indicated that the Department appears to have confused the subject property with the existing bus depot located on York Street.

PART M: SUMMARY OF COMMENTS FROM INTERNAL DEPARTMENTS AND/OR ORGANS OF STATE

Name of Department	Date	Summary of comments	Recommendation
Civil Engineering Services (Planning)	12 November 2025	In order. See comments.	N/A
Civil Engineering Services (Traffic)	12 November 2025	In order.	N/A
Electro-technical Services	10 November 2025	In order. DC conditions attached.	N/A
Environmental Management	09 December 2025	Application is in order.	SDP requires more elements of greening. Trees should be introduced in parking bays. The extent of impermeable surfaces proposed does not align with the SUDs principles documented in the George MSDF. A landscaping plan to be submitted with the SDP approvals in the future.
Waste	05 November 2025	In order.	To comply with Waste Collection Policy and By-law. For business must have a safe storage.
Fire	27 November 2025	Noted.	N/A
Parks	27 November 2025	In order.	N/A
Spatial Planning	30 October 2025	The proposal aligns with spatial planning and the Metro Grounds Industrial area catalytic project. The proposal is supported.	N/A

PART N: MUNICIPAL PLANNING EVALUATION (REFER TO RELEVANT CONSIDERATIONS GUIDELINE)

Is the proposal consistent with the principles referred to in Chapter 2 of SPLUMA? (can be elaborated further below)	**Y**	N
Is the proposal consistent with the principles referred to in chapter VI of LUPA? (can be elaborated further below)	**Y**	N

Application history

Please refer to Part H of this report.

(In)consistency with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) and with the principles referred to in Chapter Vl of the Land Use Planning Act, 2014 (Act 3 of 2014) (Section 65 of the Planning By-law)

The consistency of the application with the principles of SPLUMA and LUPA as read with Section 65 of the Planning By-law was evaluated as follows:

No	Evaluation checklist (s. 65)		Yes	No	N/A
65(a)	Does the application submitted comply with the provisions of this by-law?		X		
	Has the motivation submitted been considered?		X		
65(b)	Were the correct procedures followed in processing the application? (see land use application process checklist)		X		
	Was a condonation required and granted with regards to the process followed? *(see land use application process checklist)*				X
65(c)	Have the desirability guidelines as issued by the provincial minister to utilise land for the proposed land uses been considered? *(not yet applicable)*				X
65(d)	Have the comments received from the respondents, any organs of state and the provincial minister been considered? *(s. 45 of LUPA)*		X		
65(e)	Have the comments received from the applicant been considered?		X		
65(f)	Have investigations carried out in terms of other laws which are relevant to the application been considered?		X		
65(g)	Was the application assessed by a registered town planner? *(see land use application process checklist)*		X		
65(h)	Has the impact of the proposed development on municipal engineering services been considered?		X		
65(i)	Is the application in line, consistent and/or compatible with the IDP of the Municipality?				X
	Is the application in line, consistent and/or compatible with the Municipality's SDF?		X		
65(j)	Is the application in line, consistent and/or compatible with the IDP of the district Municipality including its SDF?				X
	Is the application in line, consistent and/or compatible with the district Municipality's SDF?				X
65(k)	Is the application in line, consistent and/or compatible with the applicable local SDF?		X		
65(l)	Is the application in line, consistent and/or compatible with the applicable policies of the Municipality that guide decision making?		X		
65(m)	Is the application in line, consistent and/or compatible with the provincial SDF?		X		
65(n)	Is the application in line, consistent and/or compatible with the regional SDF *(SPLUMA)* or provincial regional SDF *(LUPA)*?				X
65(o)	Is the application in line, consistent and/or compatible with the applicable policies, guidelines, standards, principles, norms, or criteria set by national and/or provincial government?		X		
65(p)	Is the application in line, consistent and/or compatible with the matters referred to in Section 42 of SPLUMA?		X		
65(q)	Does the application comply with the requirements of Section 42(2) of SPLUMA, supported by the relevant environmental reports.		X		
65(r)	Is the application in line or consistent and/or compatible with the following principles as contained in Sections 7 of SPLUMA and 59 of LUPA:				
	1.	The redress of spatial and other development imbalances of the past through improved access to, and use of land?			X
	2.	Address the inclusion of persons and areas previously excluded in the past, specifically informal settlements and areas characterised by wide-spread poverty and deprivation?			X

	3.	Enable the redress of access to land by disadvantaged communities and persons?			X
	4.	Support access to / facilitate the obtaining of security of tenure and/or incremental informal settlement upgrading?			X
	5.	Has the potential impact of the development proposal on the value of the affected land /properties been considered?	X		
	6.	Has the impact of the application on the existing rights of the surrounding owners been recognised?	X		
	7.	Does the application promote spatially compact, resource frugal development form?	X		
	8.	Can the development be accommodated within the existing fiscal (budget), institutional and administrative means of the Municipality? *(e.g. Infrastructure upgrades required – when, budgeted for, etc.)*	X		
	9.	Has the protection of prime, unique, and/or high potential agricultural land been considered?			X
	10.	Is the application consistent with the land use measures applicable to / contained in environmental management instruments?			X
	11.	Does the application promote and stimulate the equitable and effective functioning of land markets?	X		
	12.	Have all current and future costs to all parties for the provision of infrastructure and social services been considered?	X		
	13.	Does the application promote development that is sustainable, discourages urban sprawl, encourages residential densification, and promotes a more compact urban form?			X
	14.	Will the development result in / promote the establishment of viable communities?	X		
	15.	Does the development strive to ensure that the basic needs of all the citizens are met in an affordable way?			X
	16.	Will the development sustain and/or protect natural habitats, ecological corridors, and areas of high bio-diversity importance?			X
	17.	Will the development sustain and/or protect provincial heritage and tourism resources?			X
	18.	Will the development sustain and/or protect areas unsuitable for development including flood plains, steep slopes, wetlands, areas with a high-water table, and landscapes and features of cultural significance?	X		
	19.	Will the development sustain and/or protect the economic potential of the relevant area or region?			X
	20.	Has provision been made in the development to mitigate against the potential impacts of climate change?			X
	21.	Does the development include measures to reduce consumption / conserve water and energy resources? *(renewable energy, energy saving, water saving, etc.)*			X
	22	Does the development consider sea-level rise, flooding, storm surges, fire hazards?			X
	23	Does the development consider geological formations and topographical (soil and slope) conditions?			X
	24.	Will the development discourage illegal land occupation – w.r.t. Informal land development practices?	X		
	25.	Benefits the long-term social, economic, and environmental priorities for the area *(sustained job opportunities, sustained income, integrated*			X

		open space network, etc.) over any short-term benefits *(job creation during construction, short term economic injection, etc.)*?			
	26.	Contributes towards the optimal use of existing resources, infrastructure, agriculture, land, minerals, and/or facilities?	X		
	27.	Contributes towards social, economic, institutional, and physical integration aspects of land use planning?			X
	28.	Promotes and supports the inter-relationships between rural and urban development?			X
	29.	Promotes the availability of employment and residential opportunities in close proximity to each other or the integration thereof?			X
	30.	Promotes the establishment of a diverse combination of land uses?			X
	31.	Contributes towards the correction of distorted spatial patterns of settlements within the town / city / village?			X
	32.	Contributes towards and / or promotes the creation of a quality and functional open spatial environment?			X
	33.	Will the development allow the area or town to be more spatially resilient that can ensure a sustainable livelihood for the affected community most likely to be affected by economic and environmental shocks?			X
65(s)		Is the application in line with the applicable provisions contained in the applicable zoning scheme regulations (By-law)? (e.g. Definitions, land use description and development parameters)	X		
65(t)		Is the application in conflict with any restrictive condition applicable to the land concerned?		X	

Comments on the above table:

65(r)6 - The proposed development will not negatively impact surrounding properties, as the proposed land use is compatible with the existing industrial land uses in the area.

65(r)8 – As mentioned above, the Municipality supports the disposal of the subject property for the development of a bus depot. Subsequent to the finalisation of this application, an item will be submitted to Council for a final resolution regarding the disposal of the subject property.

It is important to note that the development of the depot is grant funded. Consequently, it is the considered view of this Directorate that the proposed development will be accommodated within the fiscal (budgetary), institutional, and administrative capacity of the Municipality, together with the relevant Provincial and National Departments.

65(r)12- The proposal includes the development of a public road, which will be budgeted for and constructed by the Municipality with the assistance of the Provincial and/or National Government.

65(r)24 – As it stands, the subject property is at risk of illegal occupation due to its close proximity to the Metro Ground Residential Development (a low-income housing development). The proposed development of this portion of land will discourage illegal occupation, as the property will be actively utilised.

(In)consistency with the IDP/Various levels of SDF's/Applicable policies

George Municipal Spatial Development Framework, 2023 (MSDF)

The proposal seeks approval to establish a bus depot on a portion of Remainder Erf 464, George. The proposed land use falls within Transport Zone I (Transport Use) zoning. This report demonstrates the proposal's consistency with the MSDF and broader spatial planning principles.

The MSDF provides strategic guidelines aimed at promoting sustainability and affordability; addressing community needs; strengthening the local economy; balancing development with environmental protection; responding to climate change and disaster risks; improving the efficiency and equity of the city's spatial structure; enabling diverse housing opportunities; restructuring and densifying the urban form; and expanding access to employment, social services, recreational facilities, open spaces, and non-motorised and public transport.

In terms of the MSDF, the subject property is located within the George Urban Edge and is earmarked for Metro (Ground) Mixed-Use development, which includes provision for a bus depot and industrial activities. The MSDF explicitly identifies the site for the development of a bus depot, thereby providing clear policy support for the proposed use.

Policy A2 promotes the integration of roads and transportation systems (for both people and freight), as well as Non-Motorised Transport (NMT), to enhance connectivity. Public transport is recognised as a key mechanism for extending access to services, particularly for lower-income communities where socio-economic infrastructure is often limited. By linking marginalised communities to areas of employment, public transport serves as a practical tool for spatial transformation and social upliftment. Furthermore, public transport contributes to climate change mitigation by reducing reliance on private vehicles and lowering carbon emissions.

Policy A2 (PGe) further addresses the development of public transport hubs, including their appropriate location, design, and implementation. The MSDF identifies the Go George service as a network comprising routes, transfer facilities, and bus stops, with the primary transport hub located within the CBD. Provision is also made for additional hubs, long-distance facilities, and specialised transport interchanges (road and potential rail) as part of the broader network expansion.

Under its Implementation Actions, the MSDF identifies the Metro Ground Industrial and Mixed-Use Development area for new industrial and potential tertiary educational uses, as well as a bus depot. As correctly indicated by the applicant, the existing bus depot (located on Erf 3472, George) falls within a restructuring zone earmarked for social housing and residential intensification and densification.

From a town planning perspective, the proposed relocation of the existing bus depot to the designated site is supported in principle.

Based on the above policy directives and spatial proposals, the proposed bus depot on a portion of Remainder Erf 464, George is considered to be aligned with, and supportive of, the MSDF.

George South and East Local Spatial Development Framework, 2015 (LSDF)
According to the LSDF, the subject site is earmarked for the development of new industrial uses and a bus depot. It is emphasised that bulk infrastructure should be provided to support the roll-out of Go-George public transport.

(In)consistency with guidelines prepared by the Provincial Minister
Not applicable.

Outcomes of investigations / applications i.t.o. other laws
As mentioned above, an Environmental Impact Assessment (EIA) was undertaken for the proposed bus depot, and the necessary authorisations were issued, as amended and/or extended by the competent authority.

In addition, a Traffic Impact Assessment (TIA) was conducted, which found that the proposed development will have an impact on traffic flow. However, appropriate mitigation measures were identified, including the installation of new traffic signals, traffic lights and/or a traffic circle. The Municipal Civil Engineering Services Directorate has reviewed and is satisfied with the recommendations, which will be incorporated as conditions of approval / notes where necessary should the application be supported.

Lastly, the applicant commissioned the requisite engineering services studies. None of the reports identified any material concerns or constraints that would prohibit the proposed development.

George Integrated Zoning Scheme By-law, 2023

As mentioned, the application includes the rezoning of proposed Portions 1 and 2 from "Undetermined" to "Transport Zone I" (Transport Use) and "Transport Zone II" (Public Street) respectively. The property, Remainder Erf 464, George is the George Commonage property cannot be

According to the Zoning Scheme, the objective of "Transport Zone I" is to reserve land for transport systems and ancillary uses excluding public streets and private roads but including all other transport undertakings including public and private parking facilities. A bus depot and associated infrastructure as proposed falls within the ambit of this objective.

Further, the Zoning Scheme describes transport use as the use of land, a building or structure for the operation of a service for the transportation of goods (including liquids, gases and solid materials) or **passenger** by means of rail, **road**, sea or pipeline and include the use of that land, building or structure for the purpose of a harbour, railway station, **bus depot** or taxi interchange, and a transport undertaking. It also includes a **public-private** undertaking including a railway station, **bus depot**, multiple parking garage, taxi rank, public transport interchange, harbour and ancillary purposes. In terms of development parameters, business premises parameters apply.

From the above, it can be deduced that the proposal is in line with the provisions of the Zoning Scheme, and no departure applications are required.

The objective of "Transport Zone II" is to provide for proclaimed streets, public streets and public parking whether constructed and still to be constructed, as well as infrastructure associated with such streets. Provision is also made for the temporary use of the land unit for other purposes. The proposal is found to be in line with this objective in that it will provide the general public with access to the proposed bus depot, industrial and educational land uses.

The Zoning Scheme describes the public street as any land, owned by or vested with the Municipality, indicated on an approved plan, diagram or map as having been set aside as a public thorough way (fare) for vehicles and pedestrian, and include open public parking area, sidewalks, those parts of a public place that are travelled parts, informal trading and appropriate and necessary street furniture and infrastructure, including reticulation networks and stormwater infrastructure, which does not present any threat to the safety or obstruct or inhibit free movement of pedestrians. The proposed public street is considered necessary infrastructure to support the overall Metro Ground Mixed-Use Industrial Development.

As previously indicated, the street name for the proposed road portion forms part of the broader development proposal and separate application. Accordingly, the approved street name will be reflected on the final Surveyor-General diagram of the street once approved by Council.

In conclusion, the proposal is found to be in line with the Zoning Scheme.

The need and desirability of the proposal

The need for and desirability of the proposed development have been considered in terms of the following factors:

NO.	EVALUATION CHECK LIST	YES	NO	N/A
1	Will the natural environment and / or open space systems be negatively affected?		X	
2	Will the application result in trees / indigenous vegetation being removed on site or in the road reserve?		X	

3	Does the application have any negative impact on heritage resources?		X	
4	Will the character of the surrounding area be negatively affected?		X	
5	Will the architectural character of the streetscape be negatively affected?		X	
6	Will there be any negative impact on vehicle traffic and pedestrian safety?		X	
7	Will there be a negative impact on traffic movement?		X	
8	Will there be a negative impact on vehicle sight distances?		X	
9	Are there adequate on-site parking / loading facilities provided?	X		
10	Are there adequate vehicle access / egress to the property?	X		
11	Will the neighbour's amenity to sunlight be negatively affected?		X	
12	Will the application result in overshadowing onto neighbours' properties?		X	
13	Will the neighbour's amenity to privacy / enjoyment of their property / views be negatively affected?		X	
14	Will the proposal have a negative impact on scenic vistas or intrude on the skyline		X	
15	Will the intended land use have a negative impact on adjoining uses?		X	
16	Will the land use pose a potential danger to life or property in terms of fire risks, air pollution or smells or compromise a person's right to a safe and secure environment?		X	
17	Will there be a negative impact on property values?		X	
18	Will the application result in a nuisance, noise nuisance, and disturbance to neighbours?		X	
19	Will adequate open space and/or recreational space be provided (for residential developments)?			X
20	Will approval of the application set a precedent?		X	

Comments on the above table:

1 – It is common cause that a bus depot may experience environmental risks, including diesel and oil spillage. Through the environmental process, the developer is required to develop an Environmental Management Plan which will be implemented during and after construction. All risks were assessed during the EIA process, and it was found that with appropriate mitigation measures, the risks may be well managed. It is not anticipated that the proposal will have significant impact on the natural environment.

4 – The area is characterised by land uses ranging from predominantly industrial activities and utility services (including an electricity substation), with residential uses located to the north-east. The Skaapkop non-perennial river separates the site from the Metro Ground housing development to the east. It is not anticipated that the proposal will have a significant negative impact on the character of the surrounding area in that the development of a bus depot is compatible with the existing character of the area which is predominantly industrial in nature.

6, 7 and 8 – A Traffic Impact Assessment (TIA) was conducted, which found that the proposal may have a negative impact on traffic flow along PW Botha Boulevard. However, it recommended that traffic signals and/or traffic lights be installed as mitigation measures. The application was also circulated to the Directorate: Civil Engineering Services for comments, and the Directorate is satisfied with the recommendations of the TIA. Consequently, this Directorate does not anticipate that the proposal will have a significant negative impact on traffic or pedestrian movement. Upon submission of the Site Development Plan, the applicant / developer will be required to indicate pedestrian footpaths along the main road.

20 – As mentioned, the proposed development is in line with the Zoning Scheme and spatial frameworks and will not set unwarranted precedent in the area.

Assessment of objections / comments

All comments received are positive, with no objections to the application. It is important to note that the applicant did not notify the Ward Councillor during the public participation process. Upon identifying this omission, the Directorate informed the applicant and instructed him to notify the Ward Councillor and provide a 30-day period for comments or objections. The Ward Councillor was notified on 25 February 2026 and requested to submit any comments or objections by 25 March 2026. At the time of finalising this report, no comments or objections had been received.

PART O: SUMMARY OF EVALUATION

Application is submitted for the subdivision of Remainder Erf 464, George into 2 portions and a Remainder and to rezone said portions to accommodate a Go-George Bus Depot and associated public street infrastructure.

It is found that the proposal complies with applicable planning legislation, including SPLUMA, LUPA, the Planning By-law, and the Zoning Scheme. From a spatial planning perspective, the development is supported as the site falls within the Urban Edge and forms part of the Metro Ground Mixed-Use and Industrial Development area identified in both the MSDF and the LSDF.

The relocation of the existing bus depot from an activity corridor where high intensity mixed use and residential development is proposed to an industrial area promotes spatial restructuring, operational efficiency of public transport, and enables residential densification close to the CBD.

The evaluation also confirms that the proposed land uses are compatible with surrounding industrial activities and will not negatively affect neighbouring properties or the character of the area. The development will help discourage illegal land occupation by activating currently vacant municipal land.

The environmental authorisation for this depot remains valid, sensitive environmental areas have been avoided, and mitigation measures are addressed through the Environmental Management process. Engineering services capacity, including water, sewer, electricity, stormwater, and waste management, is adequate, according to studies. The Traffic Impact Assessment indicates manageable impacts, with mitigation measures such as traffic signalisation to be implemented.

Public participation requirements were properly undertaken, and no objections were received from the public or commenting authorities. Internal municipal departments generally supported the application, subject to standard technical and landscaping requirements.

In terms of need and desirability, the proposal supports integrated public transport, improves long-term mobility infrastructure, contributes to economic efficiency, and aligns with municipal, provincial, and national urban mobility objectives.

Conclusion

In consideration of the above, and on the balance of all considerations as contemplated in Section 65 of the Land Use Planning By-law for George Municipality, 2023, the proposed application can be considered desirable and is therefore **SUPPORTED**, and recommended for approval, subject to the conditions as set out below.

PART P: RECOMMENDATION

That the following applications applicable to a portion of Remainder Erf 464, George:

1. **Subdivision** in terms of Section 15(2)(d) of the Land Use Planning By-law for George Municipality, 2023 of Remainder Erf 464, George into a Portion 1 (±4,53 ha), a Portion 2 (±1,00 ha) and a Remainder;
2. **Rezoning** in terms of Section 15(2)(a) of the Land Use Planning By-law for George Municipality, 2023 of Portion 1 from “Undetermined Zone” to “Transport Zone I”; and

3. **Rezoning** in terms of Section 15(2)(a) of the Land Use Planning By-law for George Municipality, 2023 of Portion 2 from "Undetermined" to "Transport Zone II";

BE APPROVED in terms of Section 60 of the said Planning By-law for the following reasons:

REASONS FOR DECISION

a) The proposed development will not have a negative impact on the character of the area or the environment as it is compatible with the existing land uses.
b) The proposal advances integrated transport objectives by improving fleet management and operational efficiency and enhancing long-term public transport sustainability. This is aligned with national and provincial transport reform objectives and sustainable mobility principles.
c) The introduction of landscaping will counteract the impact of heat emissions from hardened surfaces by introducing natural cooling elements as part of climate change mitigation. Ecological infrastructure, if applied in accordance with SUDS principles, retards stormwater runoff resulting from introduction of new hardened surfaces, thereby reducing the risk of erosion and pollution of neighbouring natural systems.
d) The proposal is consistent with the George Municipal Spatial Development Framework, 2023, promoting integration of roads and transportation systems (for both people and freight), as well as Non-Motorised Transport (NMT), to enhance connectivity. Furthermore, the infrastructure serves to link marginalised communities to areas of employment and public transport and serves as a practical tool for spatial transformation and social upliftment. The MSDF objectives related to climate change mitigation is supported through the mechanism of public transport by reducing reliance on private vehicles and lowering carbon emissions.

Subject to the following conditions imposed in terms of Section 66 of the said Planning By-law:

CONDITIONS OF THE DIRECTORATE: PLANNING AND DEVELOPMENT

General conditions

1. That in terms of the provisions of the Land Use Planning By-law for George Municipality, 2023, this approval shall lapse if not implemented within a period of five (5) years from the date of approval.
2. The rezoning and subdivision approval shall be taken to cover only the development as proposed and as indicated on Subdivision Plan 25.325 dated May 2025 and drawn by Jono Trust Town and Site Plan No. 11262000-001 Revision D drawn by V3 Consulting Engineers dated 4 September 2025 attached as "**Annexure A**" which bears Council's stamp and shall not be construed as to depart from any other Council requirements or legal provisions.

Subdivision conditions

3. The approved SG Diagrams containing the street name as approved on the broader application must be submitted to the Directorate's GIS Section for record purposes prior to registration of a portion.
4. The above approval will be regarded as implemented on the registration of the respective subdivision diagrams and transfer of at least one portion at the Deeds Office prior to submission of building plans for Portion 1.

Implementation of rezoning rights for Portion 1 (bus depot site)

5. A Site Development Plan (SDP) for the development must be submitted in accordance with the provisions of Section 23 of the George Integrated Zoning Scheme By-Law, 2023, to the satisfaction of the Directorate: Planning and Development, for approval prior to the submission of building plans. In this regard, take special consideration of the required functional open space and all relevant zoning scheme parameters to be indicated and adhered to. Also indicate compliance with all conditions of approval.
6. A separate Landscaping Plan and Rehabilitation Plan to be submitted with the SDP to the satisfaction of the Directorate: Planning and Development for consideration and approval. The plan shall indicate:
   a) Indicate all hard and soft landscaping elements to be incorporated, including the indigenous vegetation and trees that will be retained and planted within the development.
   b) The developer must plant one 200 litre tree for four two parking bays.
   c) The trees must not be clustered and should be evenly spaced on the development area. The position of the trees must be shown on the SDP/landscaping plan.

d) The George Municipality tree list should be consulted to select suitable species.
e) Landscape-based screening and beautification must be incorporated on the street reserve and outside perimeter of the development, to enhance the streetscape.
f) 3D renderings / visual representations must be included.
g) Permeable parking and other creative measures must be indicated to mitigate climate change and the heat island impact of urbanisation.
h) The extent of impermeable surfaces must align with the SUDs principles documented in the George Municipal Spatial Development Framework, 2023.

7. The developer must appoint an Environmental Control Officer (ECO) to ensure compliance with the Environmental Authorisation and all relevant environmental requirements and recommendations from related specialist studies and comments and conditions from the Department of Environmental Affairs and Development Planning. The ECO must ensure compliance with / the implementation and management of the landscaping plans. A confirmation letter from the ECO must be submitted with the SDP in this regard.
8. The above approval will be considered as implemented on the commencement of building works in accordance with approved building plans.

Implementation of the zoning rights for Portion 2

9. The zoning shall be deemed implemented on the commencement of construction works for the proposed public street.

Town Planning Notes:

i) Building plans must be submitted for approval in accordance with the National Building Regulations.
ii) Developer must comply with the recommendations of the Traffic Impact Assessment.
iii) Developer must comply with the conditions of the Environmental Authorisation.
iv) The ECO must certify compliance with conditions of the environmental authorization and landscape plan, which must accompany the application for Occupation Certificate.
v) Developer must comply will all relevant legislation.
vi) It is incumbent on the developer to comply with Waste Collection Policy and By-law.

CONDITIONS OF THE DIRECTORATE: CIVIL ENGINEERING SERVICES

10. The conditions imposed by the Directorate Civil Engineering Services are attached as 'Annexure B' dated 12 November 2025 and must be adhered to.
11. As stipulated in the attached conditions imposed by the Directorate Civil Engineering Services, the amount of Development Charges (DCs) to be paid by the developer is calculated in terms of the George Municipality Land Use Planning By-Law (as amended) and the approved DC Guidelines. With reference hereto, with regards to the proposed development, the developer will be required to make a development contribution, as indicated below.
12. The amounts of the development contributions are reflected on the attached calculation sheet dated 12 November 2025 and are as follows:

Roads	R 568 980,23 (Excluding VAT)
Sewer	R 487 376,95 (Excluding VAT)
Water	R 684 370,70 (Excluding VAT)
Total	**R 1 740 727,88 (Excluding VAT)**

13. The total amount of the development charges of **R 1 740 727,88 (excluding VAT)** shall be paid prior to the first transfer of a land unit pursuant to the application or upon the approval of building plans, whichever occurs first, unless otherwise provided in an engineering services agreement or, in the case of a phased development, in these or any other relevant conditions of approval.
14. Any amendments or additions to the proposed development which are not contained within the said calculation sheet, which may lead to an increase in the proportional contribution to municipal public expenditure, will result in the recalculation of the development charges and the amendment of these conditions of approval or the imposition of other relevant conditions of approval.

CONDITIONS OF THE DIRECTORATE: ELECTRO-TECHNICAL SERVICES

15. The conditions imposed by the Directorate Electro-Technical Services are attached as 'Annexure C' dated 10 November 2025, must be adhered to.
16. As stipulated in the attached conditions imposed by the Directorate Electro-technical Services, the amount of Development Charges (DCs) to be paid by the developer is calculated in terms of the George Municipality Land Use Planning By-Law (as amended) and the approved DC Guidelines. With reference hereto, with regards to the proposed development, the developer will be required to make a development contribution, as indicated below.
17. The amount of the development contributions is reflected on the attached calculation sheet dated 10 November 2025 and is as follows:
    Electricity R 2 545 909,00 (Excluding VAT)
18. The total amount of the development charges of **R 2 545 909,00 (excluding VAT)** shall be paid prior to the first transfer of a land unit pursuant to the application or upon the approval of building plans, whichever occurs first, unless otherwise provided in an engineering services agreement or, in the case of a phased development, in these or any other relevant conditions of approval.
19. Any amendments or additions to the approved development parameters which may lead to an increase in the proportional contribution to municipal public expenditure will result in the recalculation of the development charges and the amendment of these conditions of approval or the imposition of other relevant conditions of approval.

PART Q: ANNEXURES

The following annexures are included with this report:

Annexure A	Site Plan and Subdivision Plan
Annexure B	CES DC's Conditions
Annexure C	ETS DC's Conditions
Annexure D	Motivation Report
Annexure E	Pre-application Report
Annexure F	Copy of a Title Deed
Annexure G	SG Diagram
Annexure H	Environmental Authorisation
Annexure I	Traffic Impact Assessment
Annexure J	Comments
Annexure K	Applicant's Reply to Comments
Annexure L	Power of Attorney



K. MUKHOVHA (SACPLAN NO. A/2119/2015)
TOWN PLANNER

27 FEBRUARY 2026
DATE

RECOMMENDED /~~NOT RECOMMENDED~~



N. SWANEPOEL (SACPLAN NO. A/2237/2015)
SENIOR TOWN PLANNER

3 MARCH 2026
DATE

RECOMMENDED /~~NOT RECOMMENDED~~



CLINTON PETERSEN (SACPLAN NO. B/8336/2016)
SENIOR MANAGER: TOWN PLANNING

05/03/2026
DATE

APPLICATION FOR SUBDIVISION AND REZONING - TO ACCOMMODATE A BUS DEPOT ON A PORTION OF REMAINDER ERF 464, GEORGE (K. MUKHOVHA)

PAJA

NO	PROCESS CHECK	YES	NO	N/A
1.	Has this application been assessed / evaluated by a registered town planner as required in terms of section 65(g) of the By-law?	X		
2.	Was the report submitted by the town planner a fair and objective reflection of the relevant information available and has all relevant information been attached to the report?	X		
3.	Did the town planner exercise due diligence in evaluating the application? Is the report balanced (does not show any unfair prejudice) and were the conclusions reached reasonable and rationally linked to the relevant information available?	X		
4.	Was the town planner empowered in terms of the Municipality's system of delegations to evaluate the application?	X		
5.	Was the decision-maker empowered in terms of the Municipality's system of delegations to decide on the application?	X		
6.	Was adequate information available for the decision-maker to make a fair, reasonable and objective decision on the application?	X		
7.	If not, can it be demonstrated that the necessary attempts were made to obtain this information before the decision was taken?			X
8.	Was all the available information which impacts on the application made available to the decision-maker?	X		
9.	Was all relevant information taken into account when making the decision?	X		
10.	Was all irrelevant information noted in the town planner's report and reasons given as to why it should be disregarded when making the decision stated in the report?			X
11.	Was the town planner's evaluation, to the best of the decision-maker's knowledge, potentially influenced by an error of law?		X	
12.	Is the decision taken logical, clear, concise, and fair?	X		
13.	Can the decision be justified – i.e. rationally and reasonably linked to the information provided (critical information available) and relevant facts contained in the report?	X		
14.	Were written reasons given for the decision taken?	X		
15.	Can these reasons be reasonably and rationally linked to the relevant facts and the decision taken?	X		
16.	Were conditions of approval imposed with the decision?	X		
17.	Can these conditions be lawfully imposed as contemplated by Sections 66 of the By-law?	X		
18.	Are these conditions fair and can they be reasonably and rationally linked to the development proposal submitted, the relevant facts contained in the town planner's report, the decision taken and the reasons for such decision?	X		

~~APPROVED/ REFUSED / REFER BACK TO APPLICANT /~~ **REFER TO TRIBUNAL**



D. POWER (SACPLAN NO. A/1973/2014)
DEPUTY DIRECTOR: DEVELOPMENT AND ENVIRONMENTAL PLANNING / AUTHORISED OFFICIAL

06 MARCH 2026
DATE

LAND USE TABLE				
Portion Number	Proposed Zoning	Proposed Use	Area (ha)	% of Area
1	Transport Zone 1	Bus Depot	4.53	2.03
2	Transport Zone 2	Road	1.00	0.44
Remainder	Undertermined Zone	Undetermined	217.68	97.53
Total			223.21	100%

Erf 8890 George

Erf 3284 George

Erf 3727 George

Erf 9129 George

Ring Road

York Street

Ossie Urban Road

Remainder Erf 464 George

P.W.Botha Boulevard

1

2

4192

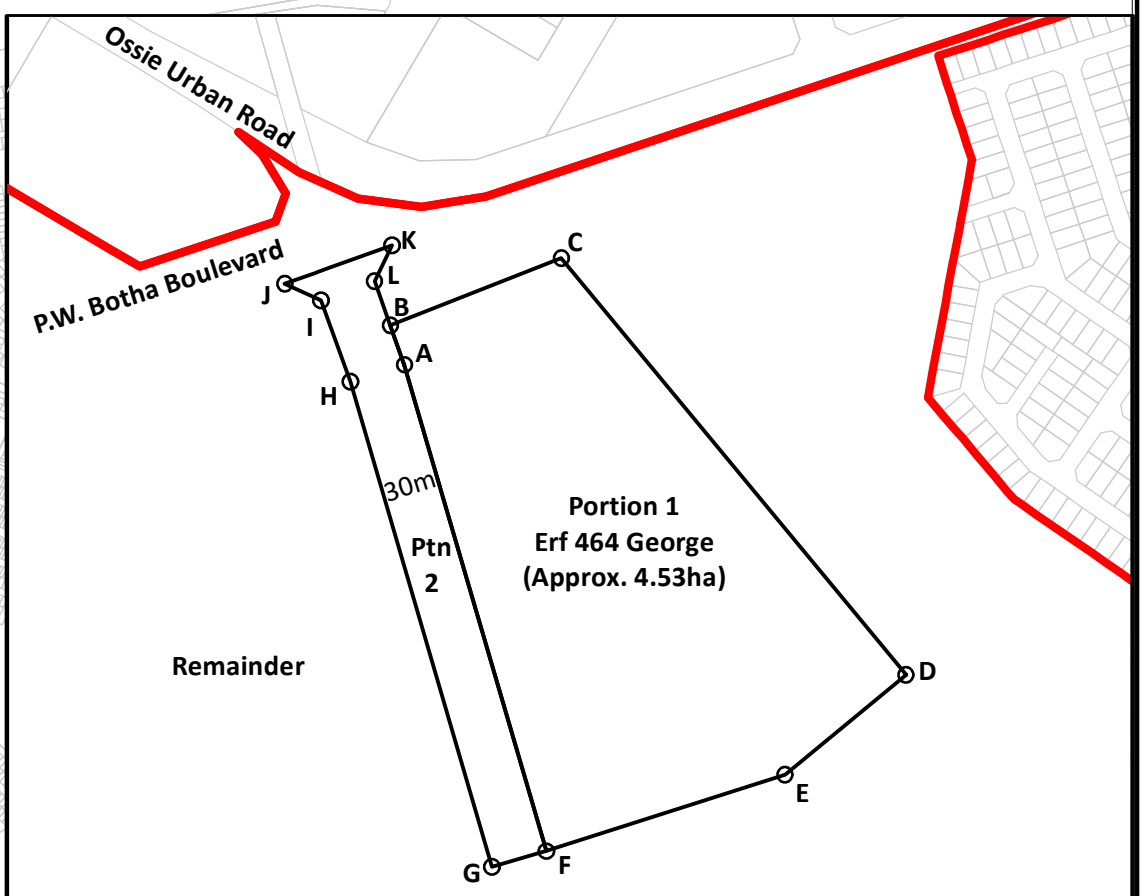
Remainder Erf 464 George (Approx. 218.55ha)

Erf 21710 George

N2 Highway

Rem. Erf 325 Pacaltsdorp

CO-ORDINATES	
A	319576.5657, -3767679.8891
B	319569.1306, -3767659.1292
C	319659.5506, -3767623.4236
D	319841.8144, -3767843.9143
E	319777.8125, -3767896.8201
F	319651.6721, -3767937.2630
G	319622.9187, -3767945.6610
H	319547.9259, -3767688.8970
I	319532.4980, -3767645.8207
J	319513.2608, -3767637.0796
K	319570.0549, -3767616.7386
L	319560.7413, -3767635.7054



Key

- Site Boundary: Remainder Erf 464 George (Approx. 223.21ha)
- Surrounding Properties
- Proposed Subdivision Line
- Subdivisional Overlay (Zutari)
- -

Remainder Erf 464 George | **2.3**

SUBDIVISION PLAN

SCALE at A3 1:12 000 — 0 45 90 180 270 360 450 Meters — N

JONO TRUST
town & urban planning
environmental design project facilitation
www.jonotrust.co.za planning@jonotrust.co.za

Job: 25.325 | mxd: Subdivision Plan | Date: May 2025

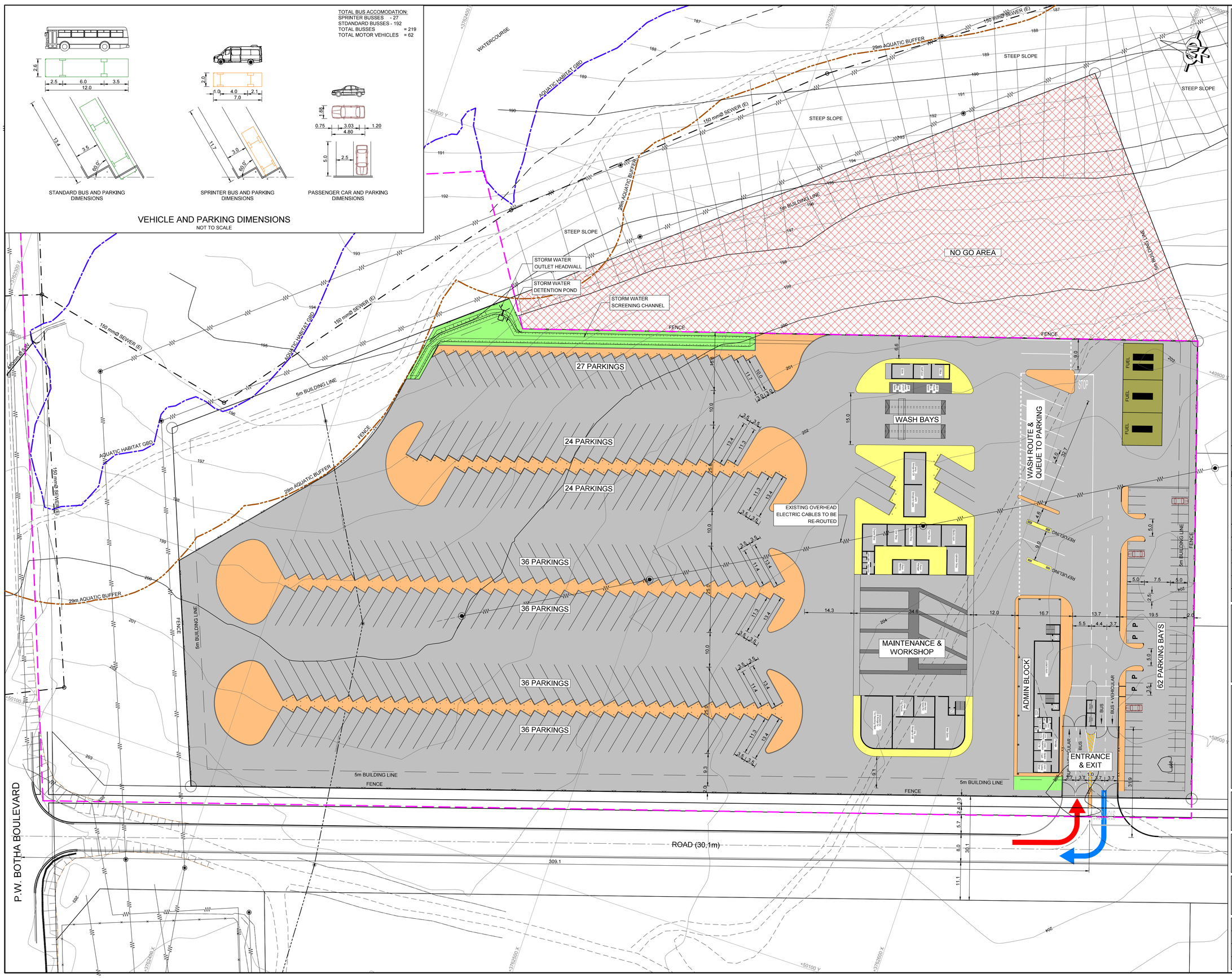
TOTAL BUS ACCOMODATION:
SPRINTER BUSSES - 27
STDANDARD BUSSES - 192
TOTAL BUSSES = 219
TOTAL MOTOR VEHICLES = 62

STANDARD BUS AND PARKING DIMENSIONS

SPRINTER BUS AND PARKING DIMENSIONS

PASSENGER CAR AND PARKING DIMENSIONS

VEHICLE AND PARKING DIMENSIONS
NOT TO SCALE



LEGEND:

- EXISTING SEWER LINE WITH MANHOLE
- EXISTING POWER LINE
- EXISTING TELEPHONE LINE
- AQUATIC HABITAT LINE
- 29m AQUATIC BUFFER
- APPROVED R.O.D. FOOTPRINT BOUNDARY
- ERF BOUNDARY OUTSIDE APPROVED R.O.D. BOUNDARY
- PAVED ISLANDS & SIDEWALKS
- HARDSTAND PARKING / DRIVEWAYS
- MAINTENANCE/WORKSHOP
- FUEL STORAGE AREA
- VEGETATION / STORM WATER SCREENING & DETENTION
- 1m CONTOUR INTERVALS

Figure 2.2: Site Development Plan

FOR INFORMATION
(for discussion purposes only)

100 MILLIMETRES ON ORIGINAL DRAWING

DRAWING REVISIONS:

A BEFORE CONTRACT COMMENCES
A AFTER CONTRACT HAS COMMENCED

No.	DATE	AMENDMENTS
A	08/04/2025	VARIOUS AMENDMENTS
B	17/04/2025	FOOTPRINT REDUCED TO WITHIN ROD BOUNDARY
C	24/04/2025	VARIOUS AMENDMENTS
D	20/08/2025	AQUATIC BUFFER ADDED, FOOTPRINT AND LAYOUT AMENDED

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GEORGE
THE CITY FOR ALL REASONS

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PO Box 730, Mossel Bay, 6500, South Africa
CESA Consulting Engineers South Africa

PROJECT
GEORGE: GIPTN: PROPOSED NEW GO GEORGE BUS DEPOT ON ERF 464

DRAWING DESCRIPTION
SITE DEVELOPMENT PLAN
APPROVED R.O.D. FOOTPRINT

DRAWING NO.
11262000-001 D

DESIGNED: DKJ		CHECKED: DKJ	
DRAWN: DKJ		SCALE: 1 : 500	A1
APPROVED:		DATE: 2025-09-04	
FILE PATH: Mossel Bay - 11262000 George Bus Depot\02 Concept\04 Draw01\11262000-001 D (SDP).DR5			

GEORGE DC CALCULATION MODEL	Version 1.00	31 August 2021

For Internal information use only (Not to publish)

Erf number *	**464 (Go-George Depot)**
Allotment area *	**George**
Water & Sewer System *	**George System**
Road network *	**George**
Developer/Owner *	**George Municipality**
Erf Size (ha) *	**4,5 Ha**
Date (YYYY/MM/DD) *	**2025-11-12**
Current Financial Year	**2025/2026**
Collaborator Application Reference	**3870616**

Application: **Subdivision & Depature**

Service applicable	Description
Roads	Service available, access via PW Botha Ave. (Subject to the Road master plan & access approval)
Sewer	Service available (Subject to the Sewer Master Plan, WWTW treatment & network capacity)
Water	Service available (Subject to the Water Master Plan,WTW treatment & network capacity)

Conditions

General conditions

1 The amount of Development Charges (DCs) to be paid by the developer are calculated in terms of the George Municipality Land Use Planning By-Law (as amended) and the approved DC Guidelines. With reference to clause above, with regards to the proposed development, the developer will be required to make development contribution, as follows:

2 The amounts of the development charges are reflected on the attached calculation sheet dated 12/11/2025 and are as follows:

Roads:	R	568 980,23	Excluding VAT (Refer to attached DC calulation sheet)
Sewer:	R	487 376,95	Excluding VAT (Refer to attached DC calulation sheet)
Water:	R	684 370,70	Excluding VAT (Refer to attached DC calulation sheet)
Total	R	1 740 727,88	Total Excluding VAT

3 The total amount of the development charges of R1 740 727,88 shall be paid prior to the first transfer of a land unit pursuant to the application or upon the approval of building plans, whichever occurs first, unless otherwise provided in an engineering services agreement or, in the case of a phased development, in these or any other relevant conditions of approval.

4 Any amendments or additions to the proposed development which is not contained within the calculation sheet as dated in clause 2 above, which might lead to an increase in the proportional contribution to municipal public expenditure, will result in the recalculation of the development charges and the amendment of these conditions of approval or the imposition of other relevant conditions of approval

Note: The Development Charges indicated above are based on the information available to the respective engineering departments at the time of approval. It is advised that the owners consult with these departments prior to submission of the subdivision plan to ascertain what information they require to provide a more accurate calculation.

5 As provided in section 66(5B)(b) of the Planning By-Law (as amended), using the date of approval as the base month the amount of R1 740 727,88 shall be adjusted in line with the consumer price index published by Statistic South Africa up to the date when payment is made in terms of paragraph 3 above.

6 Development charges are to be paid to the Municipality in cash or by electronic funds transfer or such other method of payment as may be accepted by the Municipality at the time when payment is made.

7 All services -internal, link and relocation of or upgrades to existing - are to be designed by a registered consulting engineer in accordance with Council specifications. This may include bulk services outside the development area but that must be upgraded to specifically cater for the development. All drawings and plans are to be submitted to the applicable department, or any other relevant authority, (hard copy and electronically) for approval prior to any construction work taking place. All work is to be carried out by a suitable qualified/registered contractor under the supervision of the consulting engineer who is to provide the relevant authority with a certificate of completion, and as-built plans in electronic format. All costs will be for the developer. No transfers will be approved before all the municipal services have been satisfactorily installed and as-builts submitted electronically as well as the surveyor's plan.

8 Any, and all, costs directly related to the development remain the developers' responsibility.

9 Only one connection permitted per registered erf (water and sewer connections). Condition 7 applies.

10 Any services from the development that must be accommodated across another erf must be negotiated between the developer and the owner of the relevant erf. Any costs resulting from the accommodation of such services or the incorporation of these services into the network of another development are to be determined by the developer and the owner of the other erf. (condition 7 applicable)

11 Any service from another erf that must be accommodated across the development or incorporated into the services of the development: all negotiations will be between the owner/developer of the relevant erf and the developer. Costs for the accommodation of these services or the upgrade of the developments services to incorporate such services are to be determined by the developers/owners concerned. (condition 7 applicable)

12 Any existing municipal or private service damaged during the development will be repaired at the developers cost and to the satisfaction of the George Municipality. (condition 7 applicable)

14 Suitable servitudes must be registered for any municipal service not positioned within the normal building lines.

15 Note, the applicant is to comply with the National Forestry Act, Act No 84 of 1998, should it be required.

16 Note, provisions for the removal of solid waste is to be addressed in conjunction with the Dir: Environmental Services.

17 Note, the developer is to adhere to the requirements of all relevant Acts, as well as all conditions stipulated by any other authority whose approval is required and obtained for this proposed development.

18 Transfers, building plan approvals and occupation certificates may be withheld if any sums of money owing to the George Municipality are not paid in full, or if any services have not been completed to the satisfaction of the Dir: CES & ETS, or any condition of any authority has not been satisfactorily complied with.

19 The Developer is responsible to obtain the necessary approval / way leaves from third parties which include, but is not limited to the George Municipality, Telkom & Fibre optic service provider.

20 No construction activity may take place until all approvals, including way leave approval, are in place, all drawings and material have been approved by the Technical Directorates.

21 Municipal water is provided for potable use only. No irrigation water will be provided.

22 A water meter must be installed by the developer prior to construction to monitor water usage during the construction phase. The Dir: CES (Water section) is to be consulted by the developer, prior to installation, regarding the required specifications. Failure to complying with the water meter application process, will result in the developer being responsible for payment of penalties and/or an estimated non-metered water consumption by this department at a rate as per the applicable annual Tariff List. In this regard, transfers, building plan approval and occupation certificates may be withheld if any sums of money owing to the George Municipality are not paid in full. The water meter is to be removed on completion of construction if so required by the Dir: CES.

23 Developer is to take note of existing water main in the property building line of the proposed development. (condition 7 applicable)

24 Developer is to take note of an existing sewer main in the proposed development. (condition 7 applicable)

25 All aspects regarding sewerage management/treatment shall be addressed to the satisfaction of the Dir: CES and all other relevant authorities.

26 All necessary permits, licenses and/or approvals required for the development must be obtained from the relevant authorities.

27 The applicant/developer/owner is to apply to the Dir: CES for an industrial permit to discharge any effluent, other than standard residential effluent, into the municipal sewer system. The conditions as stated in the permit are to be implemented at the applicant's expense.

28 The development, in its entirety or in phases, is subject to confirmation by the Dir. CES of the availability of Water and Sanitation bulk treatment capacity at the time of the development implementation, or if developed in phases before the commencement of each phase. A development/implementation program is to be provided by the Developer when requesting confirmation of this capacity from the Dir. CES. If the Developer does not adhere to the program the Dir. CES will be entitled to revise the availability of such bulk capacity

29 The developer is to have a Traffic Impact Assessment (TIA) conducted by a registered traffic engineer. The terms of reference of the TIA are to be finalised with the Dir. CES together with any other approving authority, who must also approve the TIA. All recommendations stipulated in the TIA report and as approved by the relevant authority, are to be implemented by the developer and prior to any transfer being approved or an occupation certificate being issued. All costs involved will be for the developer.

30 The discharge of surface stormwater is to be addressed by the developer. Condition 7 applies. All related costs are for the developer. The developer is to consult with the Dir: CES to ensure that stormwater planning is done on line with the available stormwater master plans.

31 A layout plan indicating the proposed storm water drainage must be submitted to the Dir:CES for prior approval. Condition 7 applies.

32 Internal parking requirements (ie within the development area), position of accesses, provision for pedestrians and non-motorised transport, and other issues related to traffic must be addressed and all measures indicated on plans and drawings submitted for approval.

33 Adequate parking with a hardened surface must be provided on the premises of the proposed development.

34 No private parking will be allowed in the road reserve. The developer will be required at own cost to install preventative measures to insure compliance.

35 The approval of the layout of the development and accesses is subject to the George Roads Master Plan and approved by the Dir: CES. A site development plan is to be submitted to the Dir: CES, or any other relevant authority for approval prior to any construction work taking place.

36 The developer may be required to construct certain roads in lieu of a financial contribution towards the George Master Plan roads. All roads required for access to the development will have to be fully completed prior to the approval of any transfers/rates clearances. The developer's financial contribution towards the roads in the George Master Plan will be determined in accordance with the applicable financial cost sharing model.

37 Permission for access onto municipal, provincial or national roads must be obtained from the relevant authorities.

38 The municipality, or contractors representing George Municipality to have unrestricted access to the exiting municipal infrastructure pump stations. Developer to indicated proposed access on the development's Site Development Plan (SPD) for approval.

39 Minimum required off-street parking provided, must be provided in terms of the George Integrated Zoning Scheme 2023 parking requirements and vehicles must readily leave the site without reversing across the sidewalk. Alternative Parking may be supplied.

40 Site access to conform to the George Integrated Zoning Scheme 2023.
Access to the development is permitted only through the existing municipal road. Direct access from York Street is not allowed.



Ricus Fivaz — **12 Nov 25**

Manager (CES): Land development — Date
Civil Engineering Services

CES Development Charges Calculator **Version 3.02 (Mar 2024)**

GM 2023 Development Charges policy | GM 2023 Intergrated Zoning Scheme By-law | GM 2024/25 Tariifs | Civil Engineering Service | Electro-Technical Service

Erf number *	464 (Go-George Depot)
Allotment area *	George
Water & Sewer System *	George System
Road network *	George
Developer/Owner *	George Municipality
Erf Size (ha) *	4,5 Ha
Date (YYYY/MM/DD) *	2025-11-12
Current Financial Year	2025/2026
Collaborator Application Reference	3870616

Code	Land Use	Unit	Total Exiting Rigth			Total New Right		
GENERAL BUSINESS			**m^2 Erf**	**FAR**	**m^2 GLA**	**m^2 Erf**	**FAR**	**m^2 GLA**
	Offices - Small (<2 000m² GLA)	m2 GLA				**945,00**	**1,00**	**945,00**
INDUSTRIAL			**m2 Erf**	**FAR**	**m^2 GLA**	**m^2 Erf**	**FAR**	**m^2 GLA**
	Industrial (dry) - Small (<2 000m² GLA)	m2 GLA				**1153,00**	**1,00**	**1153,00**

Is the development located within Public Transport (PT1) zone? Please select: **Yes**

Calculation of bulk engineering services component of Development Charge

Service	Units	Additional Demand	Unit Cost	Amount	VAT	Total
	trips/day	142,03	R 3 805,76	R 540 531,22	R 81 079,68	R 621 610,90
	trips/day	7,48	R 3 805,76	R 28 449,01	R 4 267,35	R 32 716,36
	kl/day	8,84	R 55 140,00	R 487 376,95	R 73 106,54	R 560 483,49
	kl/day	15,22	R 44 980,00	R 684 370,70	R 102 655,61	R 787 026,31
Total bulk engineering services component of Development Charge payable				**R 1 740 727,88**	**R 261 109,18**	**R 2 001 837,06**

Link engineering services component of Development Charge
Total Development Charge Payable

City of George

Calculated (CES): **JM Fivaz**

Signature : _____

Date : **November 12, 2025**

NOTES : 1. In relation to the increase pursuant to section 66(5B)(b) of the Planning By-Law (as amended) in line with the consumer price index published by Statistic South Africa) using the date of approval as the base month

2. Pleasde note the calulation above only surfse as a pro-forma calulation. Once confirmation of the calulation is revised can a VAT invoice be requested from the Municipal Finacial department. In this regard you can contact Werner Joubert on email at wcjoubert@george.gov.za or telefone on 044 801 1333

Departmental Notes:

For the internal use of Finance only

Service	Financial codeUKey number	Total
Roads	20220703048977	R 621 610,90
Public Transport		R 32 716,36
Sewerage	20220703048978	R 560 483,49
Water	20220703048981	R 787 026,31
		R 2 001 837,06

GEORGE ELECTRICITY DC CALCULATION MODEL			Version 1.00	2025/06/18	
For Internal information use only (Not to publish)					

Erf Number *	**464**
Allotment area *	**George**
Elec DCs Area/Region *	**George Network**
Elec Link Network *	**MV**
Elec Development Type *	**Normal**
Developer/Owner *	**George Municipality**
Erf Size (ha) *	**0**
Date (YYYY/MM/DD) *	**10 11 2025**
Current Financial Year	**2025/2026**
Collaborator Application Reference	**3870616**

Application: **Development Charges**

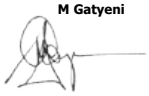
Comments: 0

Service applicable	Description
Electricity	Service available (Subject to the Electrical master plan approval)

Conditions	
General conditions	
1	The amount of Development Charges (DCs) to be paid by the developer are calculated in terms of the George Municipality Land Use Planning By-Law (as amended) and the approved DC Guidelines. With reference to cluase above, with regards to the proposed development,the developer will be required to make development contribution, as follows:
2	The amounts of the development contributions are reflected on the attached calculation sheet dated 10/11/2025 and are as follows: Electricity: R 2 545 908,59 Excluding VAT
3	The total amount of the development charges of R2 545 909, Excluding VAT shall be paid prior to the first transfer of a land unit pursuant to the application or upon the approval of building plans, whichever occurs first, unless otherwise provided in an engineering services agreement or, in the case of a phased development, in these or any other relevant conditions of approval.
4	Any amendments or additions to the approved development parameters which might lead to an increase in the proportional contribution to municipal public expenditure will result in the recalculation of the development charges and the amendment of these conditions of approval or the imposition of other relevant conditions of approval.
5	As provided in section 66(5B)(b) of the Planning By-Law (as amended), using the date of approval as the base month the amount of R2 545 909, Exclusiing VAT shall be adjusted in line with the consumer price index published by Statistic South Africa up to the date when payment is made in terms of paragraph 3 above.
6	Development charges are to be paid to the Municipality in cash or by electronic funds transfer or such other method of payment as may be accepted by the Municipality at the time when payment is made.
7	All services -internal, link and relocation of or upgrades to existing - are to be designed by a registered consulting engineer in accordance with
8	Should more than two developments/properties be party to or share any service, the Dir: CES & ETS will in conjunction with the parties determine the pro-rata contributions payable.
9	Any, and all, costs directly related to the development remain the developers' responsibility.
10	Only one connection permitted per registered erf (Electrical, water and sewer connections). Condition 7 applies.
11	Any services from the development that must be accommodated across another erf must be negotiated between the developer and the owner of the relevant erf. Any costs resulting from the accommodation of such services or the incorporation of these services into the network of another development are to be determined by the developer and the owner of the other erf. (condition 7 applicable)
12	Any service from another erf that must be accommodated across the development or incorporated into the services of the development: all negotiations will be between the owner/developer of the relevant erf and the developer. Costs for the accommodation of these services or the upgrade of the developments services to incorporate such services are to be determined by the developers/owners concerned. (condition 7 applicable)
13	Any existing municipal or private service damaged during the development will be repaired at the developers cost and to the satisfaction of the George Municipality. (condition 7 applicable)
14	No development may take place within the 1:100 year flood line or on slopes steeper than 1:4.
15	Should it be required, a services agreement is to be drawn up between the developer and the George Municipality, by an attorney acceptable to the Municipal Manager. All expenses will be for the developer.
16	Suitable servitudes must be registered for any municipal service not positioned within the normal building lines. Servitudes must be registered for all electrical services traversing erven.
17	The developer is to adhere to the requirements of all relevant Acts, as well as all conditions stipulated by any other authority whose approval is required and obtained for this proposed development.
18	Transfers, building plan approvals and occupation certificates may be withheld if any sums of money owing to the George Municipality are not paid in full, or if any services have not been completed to the satisfaction of the Dir: CES & ETS, or any condition of any authority has not been satisfactorily complied with.

19	The Developer is responsible to obtain the necessary approval / way leaves from third parties which include, but is not limited to the George Municipality, Telkom & Fibre optic service provider.
20	No construction activity may take place until all approvals,including way leave approval, are in place, all drawings and material have been approved by the Technical Directorates.
	Electro Technical
21	In all cases,where individual customer apply for a supply capacity exceeding that provided for in the calculation of DCs and for the developer paid, will be subject to additional DCs based on the rates applicable at the time.
22	Owner to ensure compliance with Regulation XA of SANS 10400 (building plans).
23	Owner to ensure compliance with Regulation XA of SANS 10142 (wiring) and any other applicable national standards.
24	The developer and/or an owner of an erf shall see to it that no Small Scale Embedded Generation (SSEG) are installed on an erf, any portion of an erf or the development, without prior approval from the ETS. Should any SSEG be installed within any part of the development the Electrotechnical Services will within their discretion either implement applicable penalties and/or disconnect the relevant point of supply.
25	Where DCs have been applied for a particular section of the network, but the developer is requested to install and fund a part of the section of network, such work will be credited against DCs calculated.
26	Installation of ripple relays are compulsory for all geysers with electrical elements.
27	All municipal supply points must be subject to standard DC charges. These charges to be included in the project costs of the project.
28	All MV/LV work must be installed and be funded by the developer/customer as no DCs are levied for this network.

M Gatyeni



Singed on behalf of Dept: ETS

10 Nov 25

Development Charges Calculator	Version 1.00	2025/06/18

Erf Number	464
Allotment area	George
Elec DCs Area/Region	George Network
Elec Link Network	MV
Elec Development Type	Normal
Developer/Owner	George Municipality
Erf Size (ha)	0
Date (YYYY/MM/DD)	2025-11-10
Current Financial Year	2025/2026
Collaborator Application Reference	3870616

Code	Land Use			Unit	Total Exiting Right			Total New Right		
OTHERS							**kVA**			**kVA**
	Others. No further diversity applied. (as applied by consultant)			Actual kVA (ADMD)						**500**

Is the development located within Public Transport (PT1) zone? Please select: **Yes**

Calculation of bulk engineering services component of Development Charge

Service	Units	Existing demand (ADMD)	New demand (ADMD)	Unit Cost	Amount	VAT	Total
Electricty	kVA	0,00	500,00	R 5 091,82	R 2 545 908,59	R 381 886,29	R 2 927 794,88
Total bulk engineering services component of Development Charge payable					**R 2 545 908,59**	**R 381 886,29**	**R 2 927 794,88**

Link engineering services component of Development Charge

Total Development Charge Payable

City of George

Calculated (ETS): **M Gatyeni**

Signature : _____

Date : **November 10, 2025**

NOTE : In relation to the increase pursuant to section 66(5B)(b) of the Planning By-Law (as amended) in line with the consumer price index published by Statistic South Africa) using the date of approval as the base month

Notes:

Departmental Notes:

For the internal use of Finance only

Service	Financial codeUKey number	Total
Electricty	20160623 021336	R 2 927 794,88
		R 2 927 794,88



REMAINDER ERF 464 GEORGE

Proposed Rezoning and Subdivision Applications made in terms of the George Land Use Planning By-Law 2023

JONO trust
PROFESSIONAL PLANNERS

October 2025

REMAINDER ERF 464 GEORGE

Proposed Rezoning and Subdivision Applications made in terms of the George Land Use Planning By- Law 2023

Prepared by

JONO trust
PROFESSIONAL PLANNERS

October 2025

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1.0 INTRODUCTION

1.1 Summary of the Project

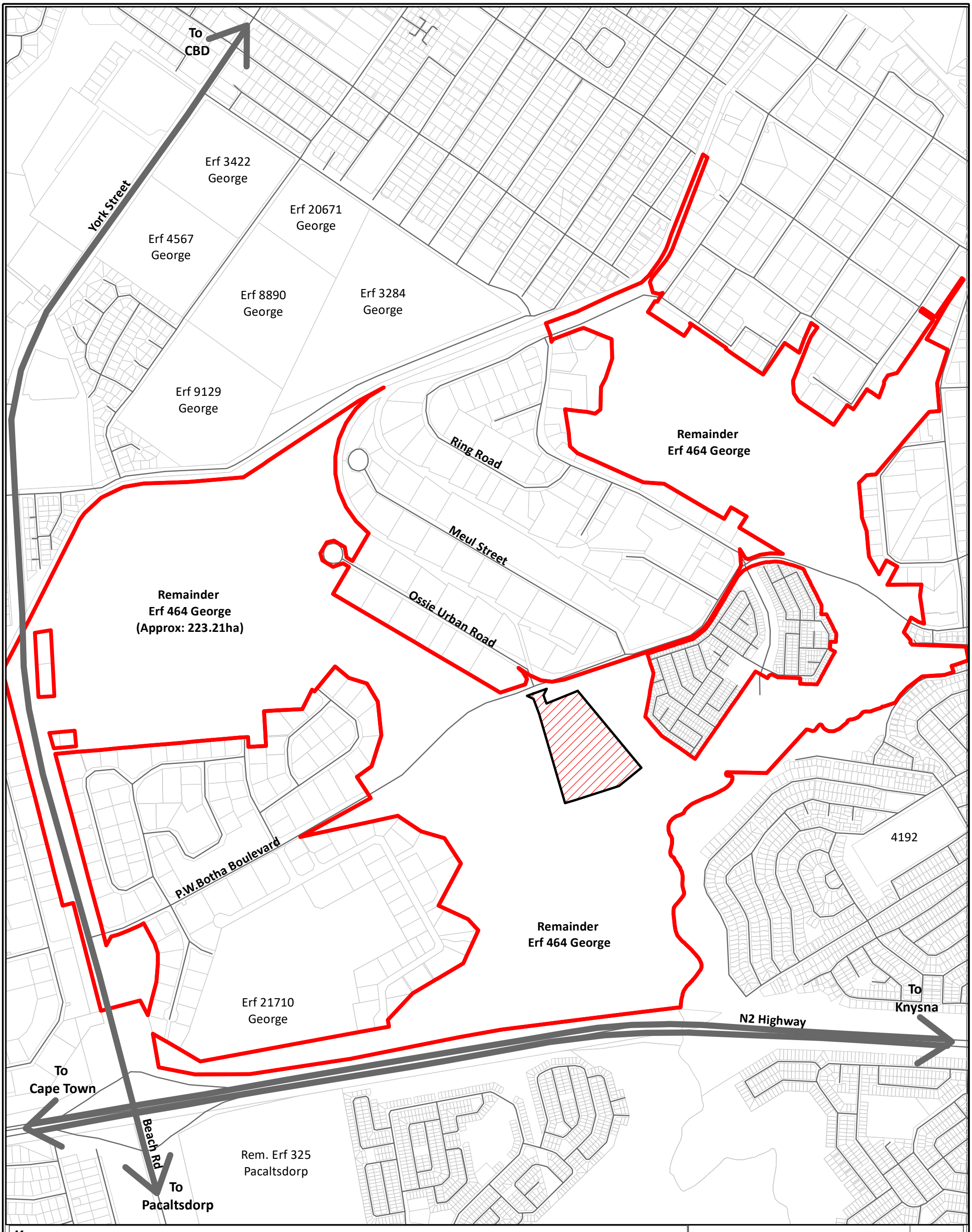
'Go George' is a public bus service operating various scheduled routes from the central areas of the town to Blanco in the west, Denneoord in the north, Thembalethu in the east and Pacaltsdorp in the south. The company's bus depot is located on Erf 3471 George, a strategic site which potentially offers greater value to the town given its location within the CBD and within the Restructuring Zone. The potential exists for Erf 3471 George to perform a more strategic function within the CBD, and in so doing, move the municipality closer to achieving its objectives and mandate concerning the provision of well-located affordable accommodation. The municipality's deliberations about the use of a strategic land parcel within the CBD resulted in the decision to relocate the bus depot to the industrial area.

The purpose of this application is therefore to establish an appropriately zoned erf, within the industrial area and owned by the municipality, on which to develop bus depot. JONO Trust Professional Planners was appointed to prepare and submit the required applications to:

- Subdivide Remainder Erf 464 George into 3 portions in order to establish a dedicated property for the bus depot; and
- Rezone the subdivided 'Portion 1' from 'Undetermined Use Zone' to 'Transport Zone 1' to establish a bus depot.
- Rezone the subdivided 'Portion 2' from 'Undetermined Use Zone' to Transport Zone 2' to establish a 'public street'.

1.2 Property Details

Applicant:	JONO Trust Professional Planners on behalf of the property owner (refer to **Annexure 1: Power of Attorney**).
Property Description:	Remainder Erf 464 George (refer to **Figure 1.1: Property Concerned** and **Figure 1.2: Aerial Photo**)
Extent:	Rem. Erf 464 George : approx. 223,2 ha (refer to **Annexure 2: SG Diagram**) Bus depot site: approx. 4,53ha.
Registered Owner:	**George Municipality** (refer to **Annexure 3: Ownership Printout**)
Title Deeds:	GEQ15-15/1922 (refer to **Annexure 4: Deed of Transfer**). There are no restrictive title deed conditions that prevent the subdivision or rezoning of the land. There are also no conditions that prevent the land from being developed or being used as a bus depot.
Applicable Zoning	George Integrated Zoning Scheme By-Law (2023)
Current Zoning:	Undetermined Use Zone
Current Land Use:	Vacant Land
Proposed Zoning:	Transport Zone I and Transport Zone II
Proposed Use:	Transport Use, which is defined as ' *the use of land, a building or structure for the operation of a service for the transportation of goods (including liquids, gases and solid materials) or passengers by means of rail, road, sea or pipeline and—*



Key

- Site Boundary: Remainder Erf 464 George (Approx. 223.21ha)
- Bus Depot + Access Road (Approx: 5.54ha)
- Surrounding Properties
- Street Centrelines
- Major Roads
- -
- -
- -

Remainder Erf 464 George	**1.1**
PROPERTY CONCERNED	
SCALE at A3 1:10 000 — 0 37,5 75 150 225 300 375 Meters	N

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town & urban planning
environmental design project facilitation
www.jonotrust.co.za planning@jonotrust.co.za

Job: 25.325 | mxd: Property Concerned | Date: March 2025



Key

- Site Boundary: Remainder Erf 464 George (Approx: 223.21ha)
- Surrounding Properties
- Street Centrelines
- Bus Depot + Access Road (Approx: 5.54ha)

Remainder Erf 464 George	**1.2**
AERIAL PHOTO	
SCALE at A3 1:10 000 — 0 37,5 75 150 225 300 375 Meters	N

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Job: 24.297	mxd: Aerial Photo	Date: February 2025

	(a) includes the use of that land, building or structure for the purpose of a harbour, railway station, bus depot or taxi interchange, and a transport undertaking; and *(b) includes a public-private undertaking including a railway station, bus depot, multiple parking garage, taxi rank, public transport interchange, harbour and ancillary purposes; and* *(c) does not include an airport, airfield; or helicopter landing pad.'* (George Integrated Zoning Scheme Bylaw, 2023)

1.3 Property Location

Remainder Erf 464 George is located at the intersection of P.W Botha Boulevard and Ossie Urban Road in George Industria.

The site is located on the east of York Street and north of the N2 Highway (refer to **Figure 1.3: Locality Plan**

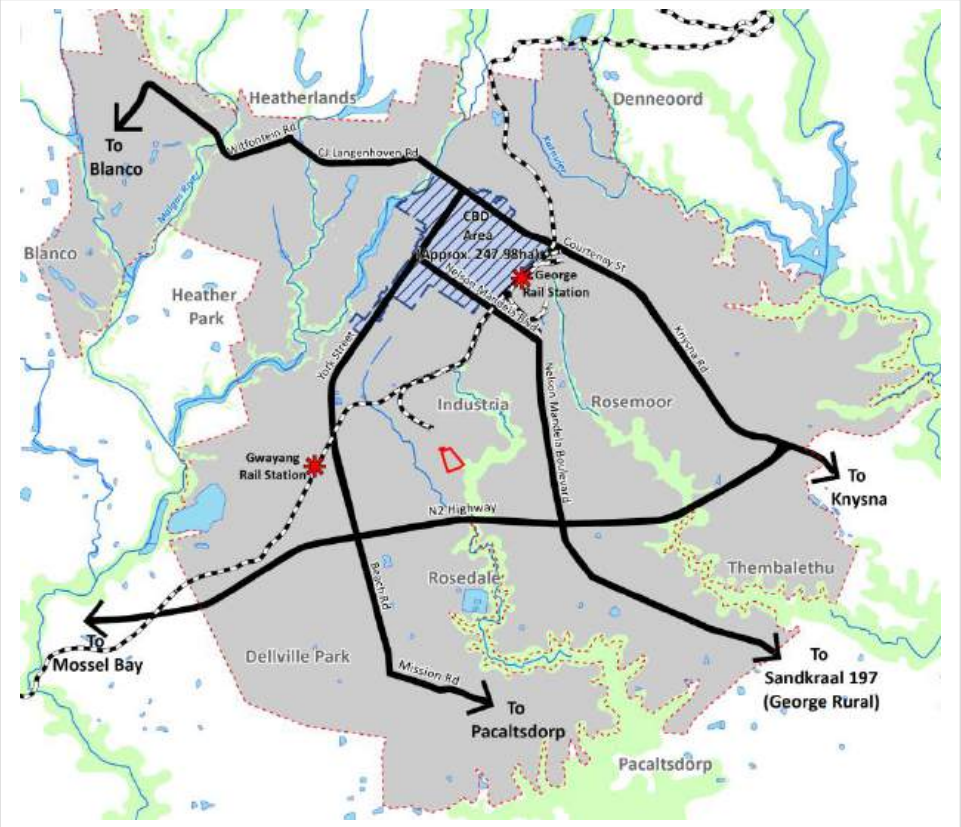


Figure 1.3 Locality Plan

1.4 Summary of Applications

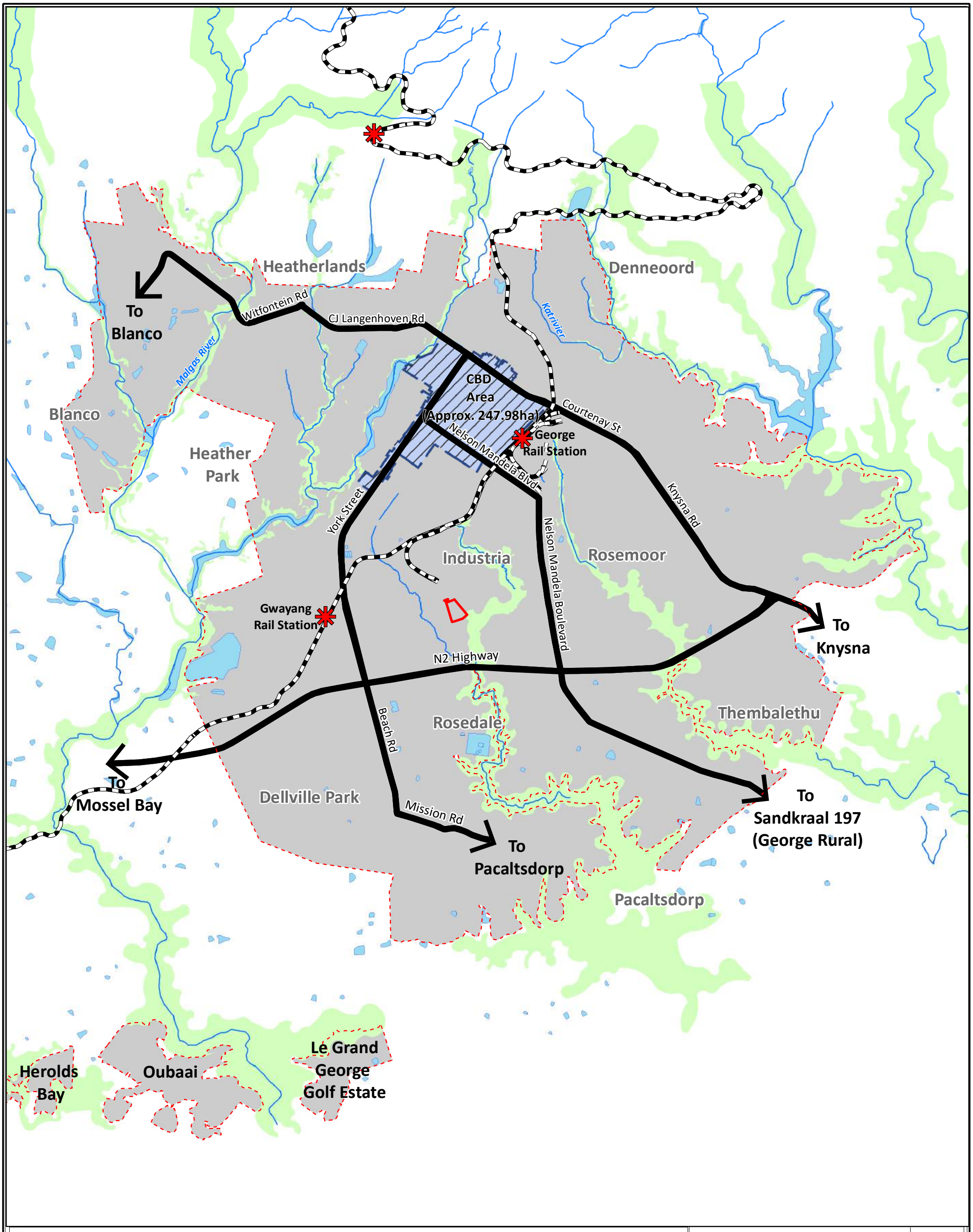
This application proposes to:

- **Rezone** the Remainder Erf 464 George from "Undetermined Use Zone" to "Subdivisional Area" to permit the subdivision of the property and rezoning of the subdivided portions. The subdivided portions will be rezoned to 'Transport Zone I' and 'Transport Zone II' to permit a bus depot and public street respectively.

The rezoning application is made in terms of Section 15 (2)(a) of the George Land Use Planning By-Law (2023).

- **Subdivide** the rezoned Remainder Erf 464 George into 3 portions:
  - Portion 1, approximately 4,53ha;
  - Portion 2, approximately 1,00ha; and
  - A remainder, approximately 217,68ha.

The subdivision application is made in terms of Section 15 (2)(d) of the George Land Use Planning By-Law (2023). The Land Use Application Forms are attached as **Annexure 5.**



Key

- Bus Depot and Access Road (Approx:5.54ha)
- Railway Station
- Main Roads
- Urban Areas
- Rivers
- CBD Area
- Wetlands
- Open Space Corridor
- Railway Line
- -
- -

Remainder Erf 464 George	**1.3**
LOCALITY PLAN	
SCALE at A3 1:50 000 — 0 190 380 760 1 140 1 520 1 900 Meters	N

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Job: 24.297 | mxd: Locality Plan | Date: March 2025

2.0 DEPOT RELOCATION, DEVELOPMENT PROPOSALS & APPLICATIONS

2.1 Bus Depot Relocation & Metro Grounds Industrial Development

The decision to relocate the GO George Bus depot from Erf 3471 George (the existing bus depot site on York Street) to George Industria was informed by:

- The potential of the existing depot property (Erf 3471 George) to play a more strategic role in the provision of affordable accommodation. The existing site is a large government-owned property within the restructuring zone.
- Erf 3471's proximity to a full range of urban services, suggests that its use is more valuable for densification and intensification.
- The continued use of Erf 3471 as a bus depot does not represent the best and highest use of the site.

In short, the use of Erf 3471 George for social housing purposes does more to further the municipality's objectives with regard to the provision of well-located affordable housing, than using the site as a bus depot.

The land development process to establish the Metro Grounds Industrial Development is currently being undertaken by Zutari on behalf of George Municipality, refer to **Figure 2.1: Metro Grounds Proposals**.



Figure 2.1: Metro Grounds Proposals (Zutari, 2025)

The Metro Grounds proposals include:

- A 30m-wide access road from PW Botha Boulevard opposite Ossie Urban Road, and

- The rezoning and subdivision of the property into 12 portion to permit Community Zone I, Industrial Zone I, Open Space II, Transport Zone I and Transport Zone II erven.

Although the Metro Grounds proposals anticipate the location of a bus depot on a portion of land adjacent to the 30m-wide entrance road, its land use applications exclude this portion. The application submitted by JONO Trust therefore is made in the context of the Zutari Metro Grounds applications and establishes the first 328m of the access road from PW Botha Boulevard.

2.2 Go George Depot Proposals

The proposal is to develop a bus depot on a portion of Remainder Erf 464 George, as illustrated in **Figure 2.2: Development Plan** (V3 Consulting Engineers)**.** The relocated bus depot will consist of:

- Associated infrastructure:
  - An access-controlled entrance approximately 300m along a new road from PW Botha Boulevard. The new 30m-wide access road is being created by the Zutari application to establish the Metro Ground Industrial Development.
- Built structure: administrative offices of approximately 945m^2:
  - Ground floor: approximately 330m^2; and
  - First floor: approximately 615m^2.
- Built structure: workshop & maintenance of approximately 1 153m^2:
  - Ground: approximately 978m^2; and
  - First floor: approximately 175m^2.
- Bus wash and refuelling bays.
- 192 Bus parking bays.
- 27 Sprinter buses.
- 62 Staff vehicle parking bays.
- 6 Bus repair parking bays.

The Remainder Erf 464 George is an extremely large property that extends over 223,21ha and is zoned Undetermined. In order to establish a separate appropriately zoned property on which to develop a bus depot, it is necessary to:

- Create a separate erf for the bus depot via the subdivision process; and
- To acquire the appropriate development rights to establish a bus depot via the rezoning process.

2.3 Proposed Rezoning

It is proposed to rezone the Remainder Erf 464 George form 'Undetermined Use Zone' to 'Subdivisional Area' to permit the subdivision of the property in accordance with Section 20(2) of the Land Use Planning Ordinance for George Municipality (2023), and in order to permit:

- 'Transport Zone I' to permit a 'transport use'.

  'Transport use' is defined as '*the use of land, a building or structure for the operation of a service for the transportation of goods (including liquids, gases and solid materials) or passengers by means of rail, road, sea or pipeline and (a) includes the use of that land, building or structure for the purpose of a harbour, railway station, bus depot or taxi interchange, and a transport undertaking; and (b) includes a public-private undertaking including a railway station, bus depot, multiple parking garage, taxi rank, public transport interchange, harbour and ancillary purposes; and (c) does not include an airport, airfield; or helicopter landing pad.'* (George Integrated Zoning Scheme Bylaw, 2023).

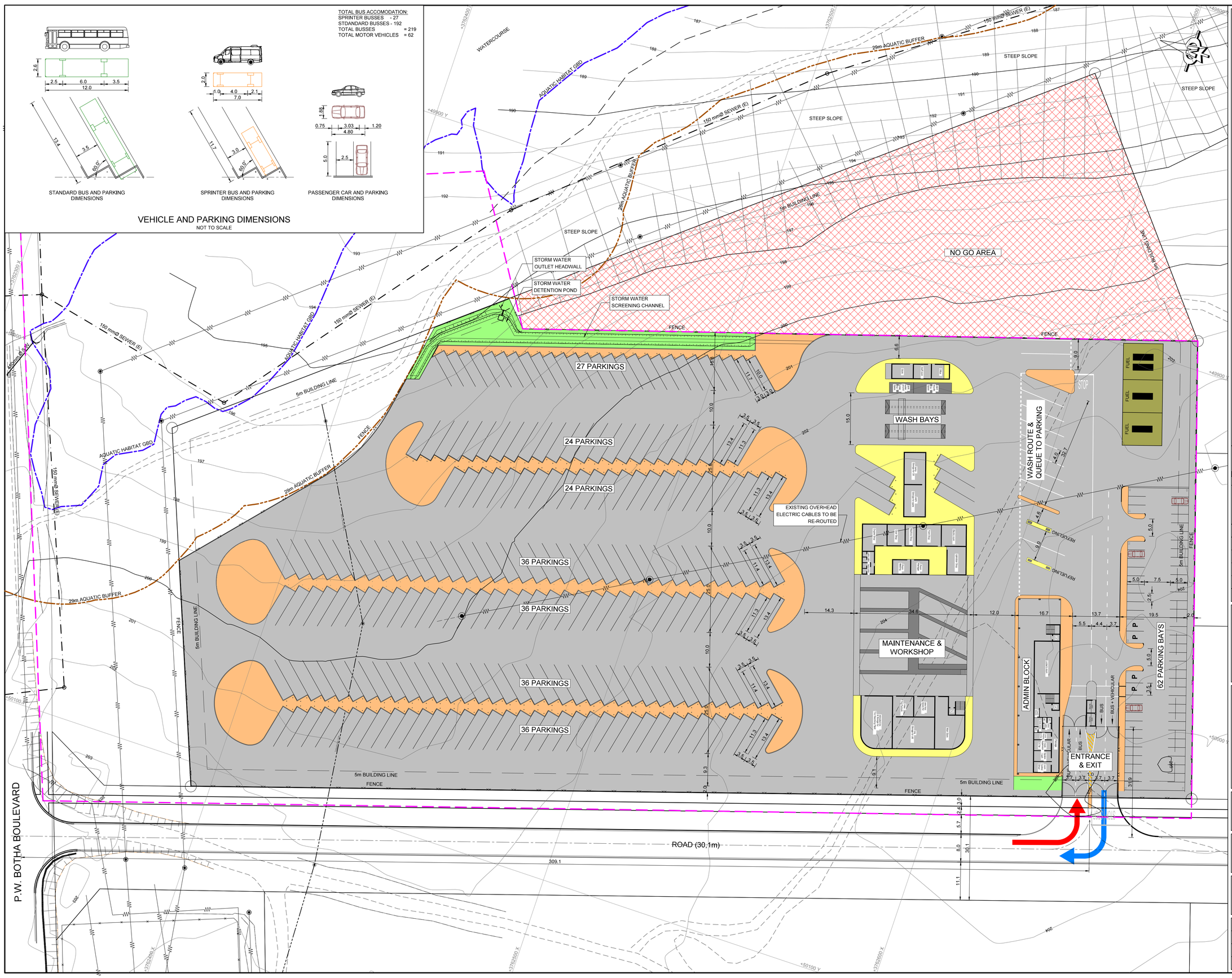
TOTAL BUS ACCOMODATION:
SPRINTER BUSSES - 27
STDANDARD BUSSES - 192
TOTAL BUSSES = 219
TOTAL MOTOR VEHICLES = 62

STANDARD BUS AND PARKING DIMENSIONS

SPRINTER BUS AND PARKING DIMENSIONS

PASSENGER CAR AND PARKING DIMENSIONS

VEHICLE AND PARKING DIMENSIONS
NOT TO SCALE



LEGEND:

- EXISTING SEWER LINE WITH MANHOLE
- EXISTING POWER LINE
- EXISTING TELEPHONE LINE
- AQUATIC HABITAT LINE
- 29m AQUATIC BUFFER
- APPROVED R.O.D. FOOTPRINT BOUNDARY
- ERF BOUNDARY OUTSIDE APPROVED R.O.D. BOUNDARY
- PAVED ISLANDS & SIDEWALKS
- HARDSTAND PARKING / DRIVEWAYS
- MAINTENANCE/WORKSHOP
- FUEL STORAGE AREA
- VEGETATION / STORM WATER SCREENING & DETENTION
- 1m CONTOUR INTERVALS

Figure 2.2: Site Development Plan

FOR INFORMATION
(for discussion purposes only)

100 MILLIMETRES ON ORIGINAL DRAWING

DRAWING REVISIONS:

A BEFORE CONTRACT COMMENCES
A AFTER CONTRACT HAS COMMENCED

No.	DATE	AMENDMENTS
A	08/04/2025	VARIOUS AMENDMENTS
B	17/04/2025	FOOTPRINT REDUCED TO WITHIN ROD BOUNDARY
C	24/04/2025	VARIOUS AMENDMENTS
D	20/08/2025	AQUATIC BUFFER ADDED, FOOTPRINT AND LAYOUT AMENDED

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THE CITY FOR ALL REASONS

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PROJECT
GEORGE: GIPTN: PROPOSED NEW GO GEORGE BUS DEPOT ON ERF 464

DRAWING DESCRIPTION
SITE DEVELOPMENT PLAN
APPROVED R.O.D. FOOTPRINT

DRAWING NO.
11262000-001 D

DESIGNED: DKJ		CHECKED: DKJ	
DRAWN: DKJ		SCALE: 1 : 500	A1
APPROVED:		DATE: 2025-09-04	
FILE PATH: Mossel Bay - 11262000 George Bus Depot\02 Concept\04 Draw01\11262000-001 D (SDP).DR5			

- 'Transport Zone II' to permit a 'public street'.

  'Public street' is defined as '*any land, owned by or vesting in the Municipality, indicated on an approved plan, diagram or map as having been set aside as a public thorough way for vehicles and pedestrians, and includes — (a) open public parking areas; (b) sidewalks; (c) those parts of a public place that are travelled parts; (d) informal trading; and (e) appropriate and necessary street furniture and infrastructure, including reticulation networks and stormwater infrastructure, which does not present any threat to the safety or obstruct or inhibit free movement of pedestrians*'.

The rezoning application is made in terms of Section 15 (2)(a) of the George Land Use Planning By-Law (2023).

2.4 Proposed Subdivision

It is proposed to subdivide Remainder Erf 464 George into 3 portions as depicted in **Figure 2.3: Proposed Subdivision Plan**. The proposed subdivision will result in:

Table 1: Land Use Table				
Description	**Proposed Use**	**Zoning**	**Area (ha)**	**Approx. %**
Portion 1	Transport Use (Bus Depot)	Transport Zone I	4,53ha	2.03%
Portion 2	Public Street	Transport Zone II	1,00ha	0.44%
Remainder	Undetermined	Undetermined	217,68ha	97.53%
TOTAL			**223,21ha**	**100%**

The subdivision applications are made in terms of Section 15 (2)(d) of the George Land Use Planning By-Law (2023).

2.5 Need for Departures

In terms of Schedule 2 (George Integrated Zoning Scheme Bylaw) the development parameters applicable to 'business premises apply to 'transport use'. We consider the development parameters for 'business premises' in order to determine the need for departures.

Business Premises Development Parameters		**Bus Depot Development Proposal**	**Need for Departures**
Coverage	100%	Proposed building structures cover approximately 2,54% of the proposed bus depot site (1593.85m^2).	None required.
Street centreline setback	8m from street centreline	The proposal includes the creation of a 30m-wide road reserve to permit access. All buildings will located >8m from the street centreline.	None required.
Floor factor	3	Proposed buildings have a gross floor space of 2101.72m^2, which represents approximately 1,55% of the permissible bulk (and even less if the exclusions to floor space is applied).	None required.
Height	15m to top of roof	Proposed buildings will not exceed the 15m height limit.	None required.

LAND USE TABLE				
Portion Number	Proposed Zoning	Proposed Use	Area (ha)	% of Area
1	Transport Zone 1	Bus Depot	4.53	2.03
2	Transport Zone 2	Road	1.00	0.44
Remainder	Undertermined Zone	Undetermined	217.68	97.53
Total			223.21	100%

Erf 8890 George

Erf 3284 George

Erf 3727 George

Erf 9129 George

Ring Road

York Street

Ossie Urban Road

Remainder Erf 464 George

P.W.Botha Boulevard

1

2

4192

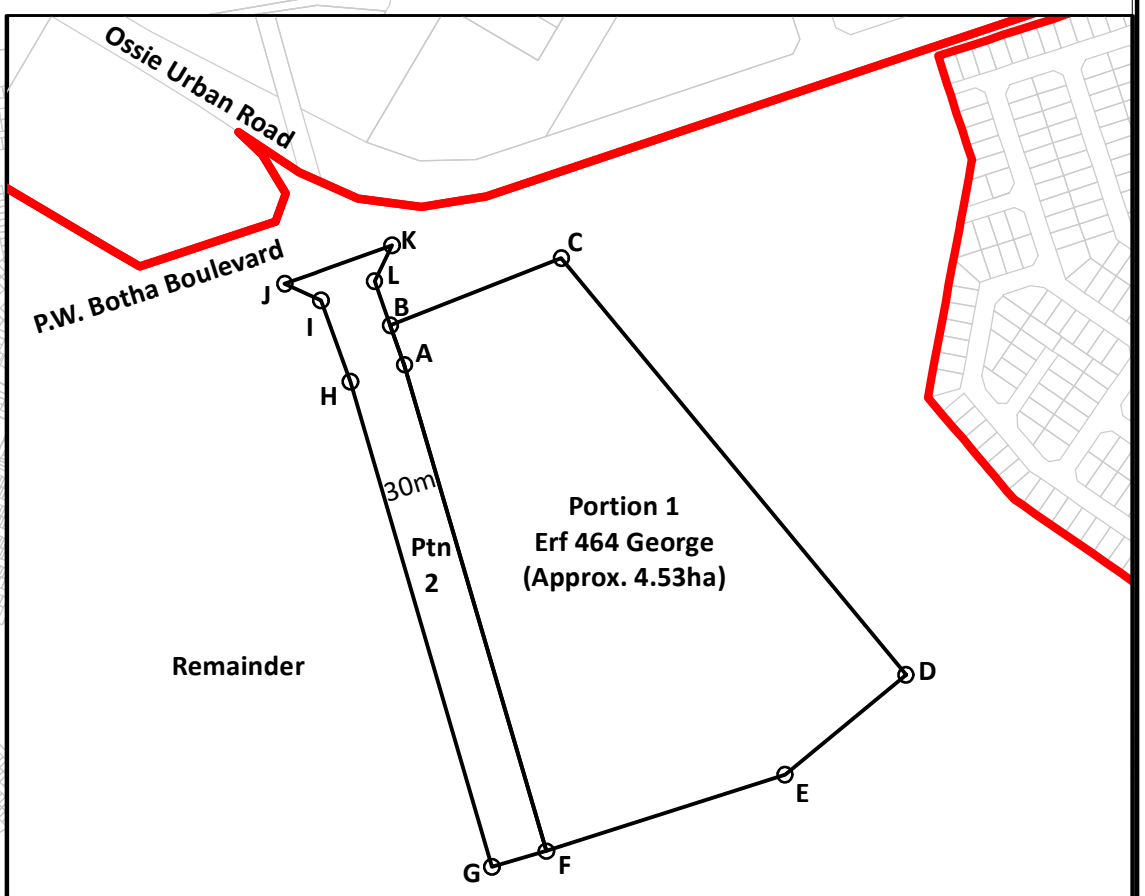
Remainder Erf 464 George (Approx. 218.55ha)

Erf 21710 George

N2 Highway

Rem. Erf 325 Pacaltsdorp

CO-ORDINATES	
A	319576.5657, -3767679.8891
B	319569.1306, -3767659.1292
C	319659.5506, -3767623.4236
D	319841.8144, -3767843.9143
E	319777.8125, -3767896.8201
F	319651.6721, -3767937.2630
G	319622.9187, -3767945.6610
H	319547.9259, -3767688.8970
I	319532.4980, -3767645.8207
J	319513.2608, -3767637.0796
K	319570.0549, -3767616.7386
L	319560.7413, -3767635.7054



Key

- Site Boundary: Remainder Erf 464 George (Approx. 223.21ha)
- Surrounding Properties
- Proposed Subdivision Line
- Subdivisional Overlay (Zutari)
- -

Remainder Erf 464 George	2.3
SUBDIVISION PLAN	
SCALE at A3 1:12 000	0 45 90 180 270 360 450 Meters
N	

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Job: 25.325	mxd: Subdivision Plan	Date: May 2025

Street building line	0m	Proposed buildings are setback by 5,9m from the street boundary at the nearest point.	None required.
Side and rear building lines	0m for buildings up to a height of 8,5m. 4,5m for buildings higher than 8,5m.	Proposed buildings are setback by: • Approximately 60,72m from the rear boundary, and • Approximately 27,95m from the side boundary.	None required.

The proposals comply with the applicable development parameters. No departures are required.

3.0 MOTIVATION IN SUPPORT OF THE DEVELOPMENT PROPOSALS

The development proposals seek to allow a portion of Remainder Erf 464 George to be developed as a bus depot with access road from PW Botha Boulevard. This motivation report proposes and seeks to:

- Rezone the Remainder Erf 464 George from 'Undetermined Use Zone' to 'Subdivision Area' to permit the subdivision and rezoning of the property for the purposes of 'transport use' and 'public road'.

- Subdivide 4,53ha of land from the Remainder Erf 464 George to create an erf for the bus depot;

- Subdivide 1,00ha of land from the Remainder Erf 464 George to create a public street to access proposed bus depot site.

We set out below the reasons why we consider that the proposals should be supported, and the applications should be approved.

3.1 The Proposals Enjoy Policy Support

We set out below how the development proposal (establishing a bus depot and a public street) and associated applications respond to the planning policies that are relevant.

➢ **Western Cape: Provincial Spatial Development Framework (WCPSDF)**

The Western Cape Provincial Spatial Development Framework (WCPSDF) highlights the need for reshaping the structure of our towns and cities, by for example developing and densifying vacant sites and under-utilised well-located sites. The WCPSDF also makes mention of integrated development close to transport routes and providing a portion of development land for lower income earners. It also limits new development to within a municipal area's urban edge and has a strong focus on responsible design based on the contextual realities within which land development occurs.

The proposals support these over-arching PSDF guidance because:

- The relocation of the bus depot from its current site on the edge of the CBD allows Erf 3471 George to be better utilised for residential intensification in the form of, for example, social housing.
- The new site (a portion of Rem. Erf 464) is located within the urban edge;
- The new site is centrally located, allowing the continuation of the service without significant disruption; and
- The location within an industrial presents a contextually more appropriate fit.

➢ **George Spatial Development Framework (2023/27)**

The SDF (2023/2027) sets out the spatial vision and development priorities to achieve a reconfigured, inclusive spatial form for municipality. The SDF provides clarity in respect of the manner in which land-use, development, and investment will be supported to build a spatial form, which facilitates the vision and strategic objectives of the Municipality.

The SDF plays a fundamental role in directing municipal growth and development. It also recognises the need to redress spatial and development imbalances by explicitly seeking to be smart about where and how growth occurs, and must be inclusive and transformative, thereby seeking to improve the living conditions of all its residents.

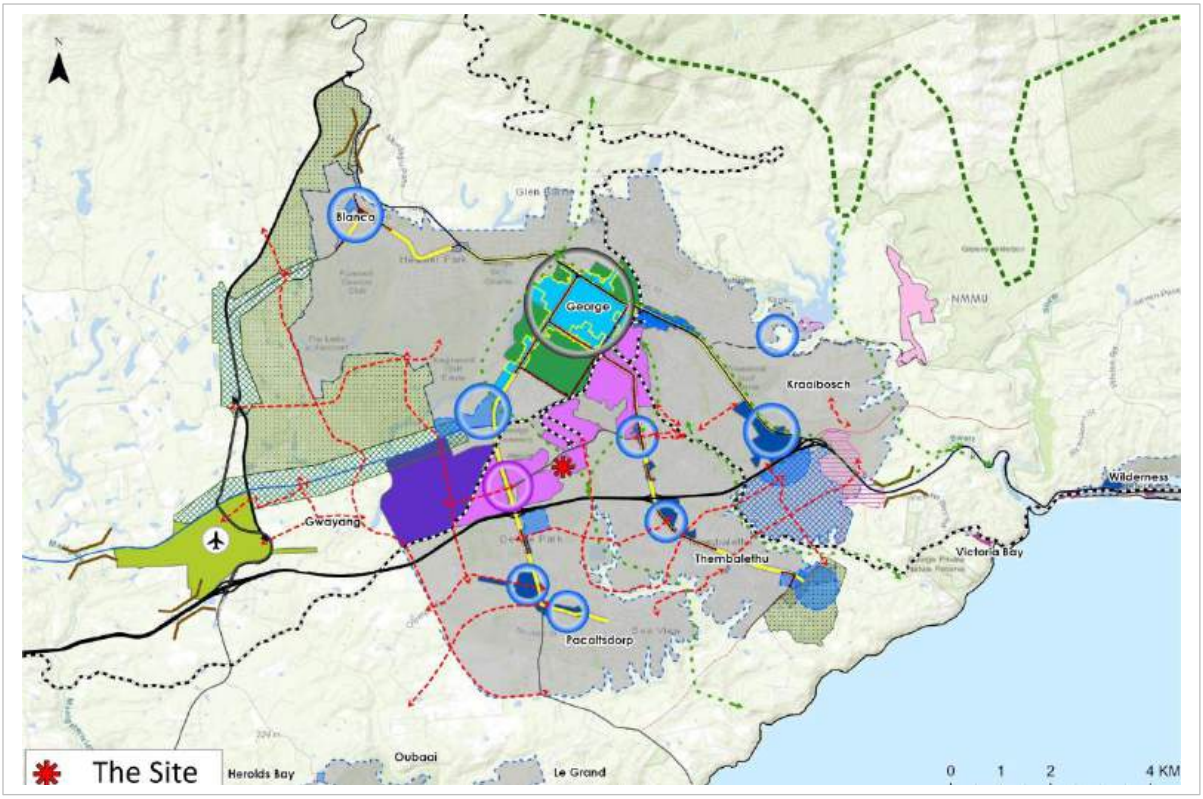


Figure 3.1: George City Area SDF (extract). The red star shows the location of Remainder Erf 464 George.

The proposal to relocate the bus depot to a portion of Remainder Erf 464 George supports the SDF by:

- Using land that is located within the 'urban edge', therefore supporting efforts to mitigate the cost of urban sprawl.
- Implementing the relocation of the bus depot as outlined in the MSDF's implementation framework;
- Complying with policy A2 which is concerned with Roads and Transportation (people and freight) and Non-Motorised Transport (NMT) to promote connectivity (socio-economic integration):
  - 'PG a' (Promote timeous implementation of roads infrastructure to support future growth (Residential and socio-economic);
  - 'PG b' (Enhance public transport and walkability); &
  - 'PG e' (Public Transport Hubs to be located, designed, and implemented).
- Complies with Policy A5, which is concerned with locating utility precincts / uses areas which are accessible, will allow expansion is possible and does not impede urban growth.

In short, the relocation of the bus depot will allow for the intensification of a strategic and well-located site (Erf 3471 George) for social housing development, while appropriately locating the new bus depot in a centrally located industrial area.

➢ **George South-East Local Spatial Development Framework 2015**

The Local Development Framework (2015) is an extension of the George Spatial Development Framework (George SDF). The LSDF focuses on south-east and provides specific guidelines for the spatial development of the area in order to create better opportunities for local residents.

The LSDF identifies the vacant land to the south of the PW Both Boulevard as suitable for the extension and growth of the industrial area.

The relocation of the bus depot to the proposed site is consistent with the intentions for this area.

3.2 The Proposals Meet the Requirements of National and Provincial Legislation

➢ Spatial Planning and Land Use Management Act (16 of 2013)

This national legislation sets out principles that must be supported:

- **Spatial justice:** Is addressed as the relocation of the bus depot from current site will allow the Erf 3471 George to be better utilised for residential intensification in the form of social housing. The development proposal on Remainder Erf 464 George starts to address the historical development imbalances that has come about due to past development biases.

- **Spatial sustainability:** Is addressed as Remainder Erf 464 George is located within the urban edge and in a location easily connected to utility services. The site is in a predominantly industrial area, which is suitable for the proposed use (Bus depot) of the property.

- **Efficiency**: Is complied with as the legislation encourages development that is efficient and diverse in order to optimise the use of land for future developmental growth. The development proposals for a portion of Remainder Erf 464 George supports this principle.

➢ Land Use Planning Act (3 of 2014)

The Land Use Planning Act sets out the principles for development as well as the minimum requirements for municipal planning matters as well as the minimum content for metropolitan spatial development frameworks and zoning schemes at the provincial level.

LUPO is concerned with spatial justice, compact urban development, the protection of agricultural land, the cost implications of development and the protection of environmental resources.

The proposals to develop a new bus depot on Remainder Erf 464 George:

- Is an investment into the previously neglected SE areas;
- Does not extend beyond the city's urban footprint outside the existing extents;
- Does not use high value or actively farmed agricultural lands;
- Ties in with the existing bus route system and thus does not require additional trips to the route network; and
- Considers the environmental implications of developing near a river course.

The proposals therefore aligned with LUPA's objectives.

➢ National Environmental Management Act, 1989 (Act 107 of 1998)

The National Environmental Management Act and Environmental Impact Assessment (EIA) Regulations identify certain activities that may be detrimental to the environment. The Department of Environmental Affairs & Development Planning (DEA&DP) issued a positive environmental record of development (ROD) on10 November 2010 (refer to **Annexure 6: Environmental Authorisation 2010**).

The ROD considered the proposals to develop parking spaces for approximately 200 buses, cleaning and maintenance facilities, fuel bay, offices and workshops, and a trade school for the bus industry. The layout plan also indicates the access road from PW Botha Boulevard.

The bus depot proposals triggered the following environmental activities:

- Activity 1k concerning the bulk transportation of sewage and water, including stormwater;
- Activity 15 concerning the construction of a road wider than 4 meters;
- Activity 16 concerning the transformation of undeveloped, vacant or derelict land; and
- Activity 3 concerning the construction of filling stations, including associated infrastructure.

The positive ROD confirms that the development proposals (and the activities they trigger) are not detrimental to the environment.

DEA&DP granted a number of amendments after the 2010 Environmental Authorisation (refer to Annexure 6) in order to extend the validity of the authorisation:

- **Annexure 7: Environmental Authorisation 2013**, extended the time for implementation to September 2020;
- **Annexure 8: Environmental Authorisation 2020**, extended the time for implementation to September 2025;
- **Annexure 9: Environmental Authorisation 2025** extended the time for implementation to September 2028.

The environmental authorisation to establish a bus depot and access road remains valid up until 4 September 2028.

➢ **National Heritage Resources Act, 1999 (Act 25 OF 1999)**

The legislation "aims to promote good management of the national estate, and to enable and encourage communities to nurture and conserve the legacy". Section 38 lists a host of development categories, which if pursued, requires that the responsible heritage resources authority, Heritage Western Cape (HWC), be notified. The Section 38 development categories are:

A linear development of 300m or more (road, power line, pipeline etc.) and bridge or such exceeding 50m;

- A development or activity that will change the character of the site:
  - Exceeding 5000m2,
  - Involving 3 or more existing erven or the subdivision thereof,
  - Involving 3 or more division thereof which have been consolidated within the past 5 years,
  - The costs of which will exceed the sum set by SAHRA;
- A rezoning of a site exceeding 10 000m^2 in extent; and
- Any other category of development provided for in regulations by SAHRA or a provincial heritage authority.

The requirements of the NHRA were met under the NEMA environmental assessment (refer to **Environmental Authorisation 2013**).

3.3 Minimal Impacts on Existing Rights

Remainder Erf 464 George is an extensive property, and the proposed site of the bus depot is relatively distant from residential properties located approximately 102m away to the east in the government subsidized housing development called Metro Grounds (subsidized housing).

The Skaapkop River gorge exacerbates the separation between the bus deport site and the Metro Grounds housing development.

3.4 Compatibility with Surrounding Uses

Figure 3.2: Local Context highlights the key features of the local area, which include:

- The Skaapkop River has created river gorges that separates the productive uses / economic activity areas from residential areas. The Metro Grounds subsidized housing development appears to not adhere to this pattern.
- The local area contains extensive industrial developments. Steinhoff Industrial Park is located to the west, and George Industria to the north of PW Both Boulevard.
- PW Botha Boulevard provides an important east-west link between Nelson Mandela Boulevard (east of the site) and York Street (west of the site).
- The proposed depot site is relatively close to the George CBD, which is approximately 2km away.

3.5 Existing Zoning

Figure 3.3: Zoning shows that Remainder Erf 464 George is currently zoned as an 'Undetermined Use Zone'. The site consists of a substation, which is zoned 'Utility Zone'. The surrounding properties are zoned 'Industrial Zone II', 'Open Space I' and 'Single Residential III'.

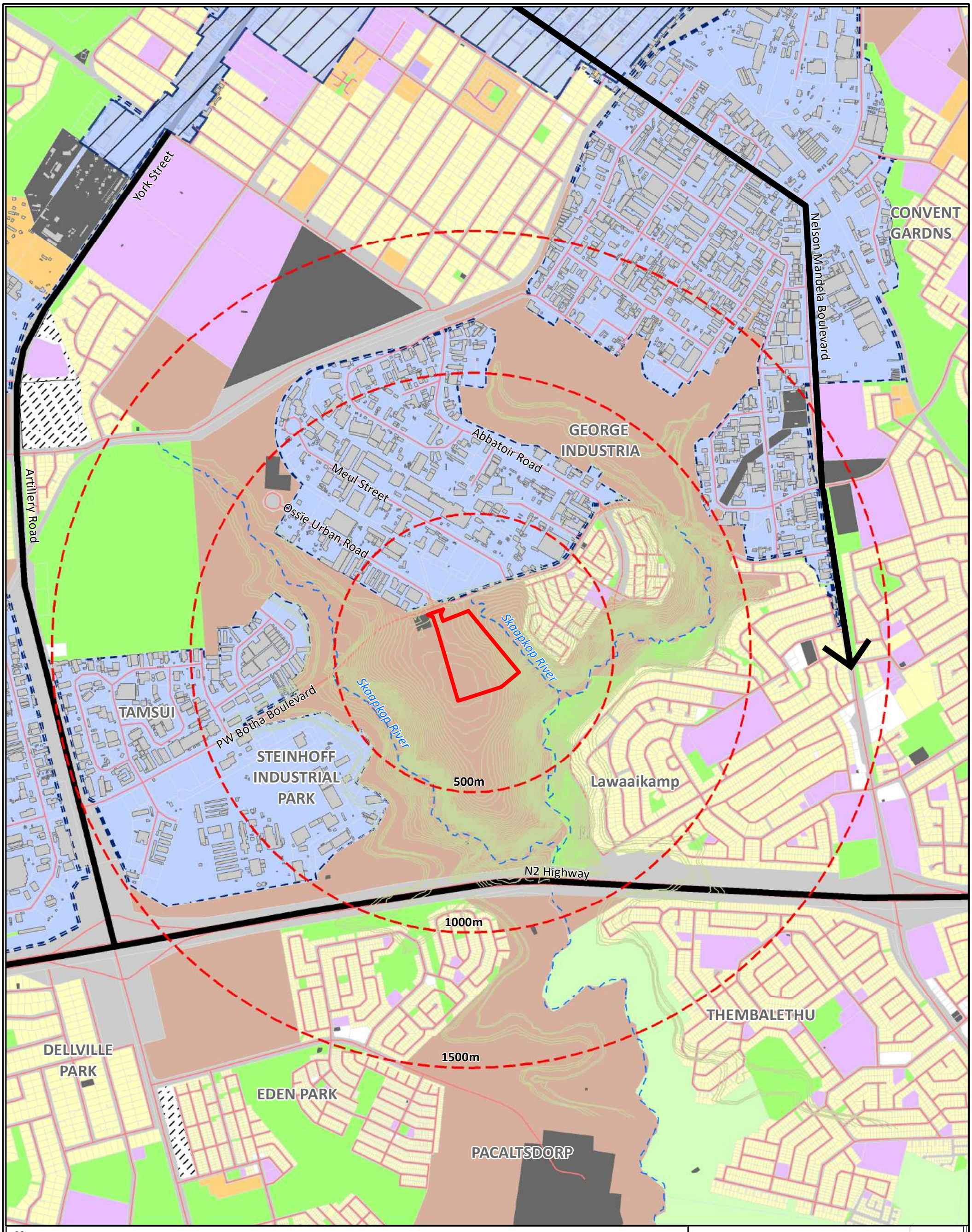
The purpose of this application is to rezone the site from 'Undetermined Use Zone' to 'Transport I' to allow a transport use. The zoning plan emphasises the extent of industrial zonings in the local area.

3.6 Site Conditions

Figure 3.4: Contours show how the land slopes towards the Skaapkop River. The majority of the proposed site is on the relatively gentle slope, with the south-east corner of the site extending into an area with a steeper fall.

Figure 3.5: Environmental Informants shows:

- A 29m-wide buffer area along the Skaapkop River which extends onto the north-east corner of proposed depot site. Any development within this river buffer area is likely to trigger the need for a water use licence. It is for this reason that there are no development proposals on the north-east portion of the site.
- No development proposals have been made on the eastern edge of the site. The environmental authorisation to develop a bus depot does not extend on this eastern edge. furthermore, this part of the site has a steeper fall towards the Skaapkop River.
- The proposed bus depot site does not have any significant trees. Trees are found in the bottom of the river gorge.



Key

- Site Boundary: Bus Depot + Access Road (Approx. 5.54ha)
- Surrounding Properties
- Major Roads
- Contours (1m Intervals)
- Rivers
- Agricultural Zones
- Residential
- General Residential
- Community Zones
- Public Open Space Zones
- Productive Uses/ Economic Activity
- Subdivisional Area Overlay Zones
- Undetermined Use Zones
- Utility Zone
- -

Remainder Erf 464 George — **3.2**

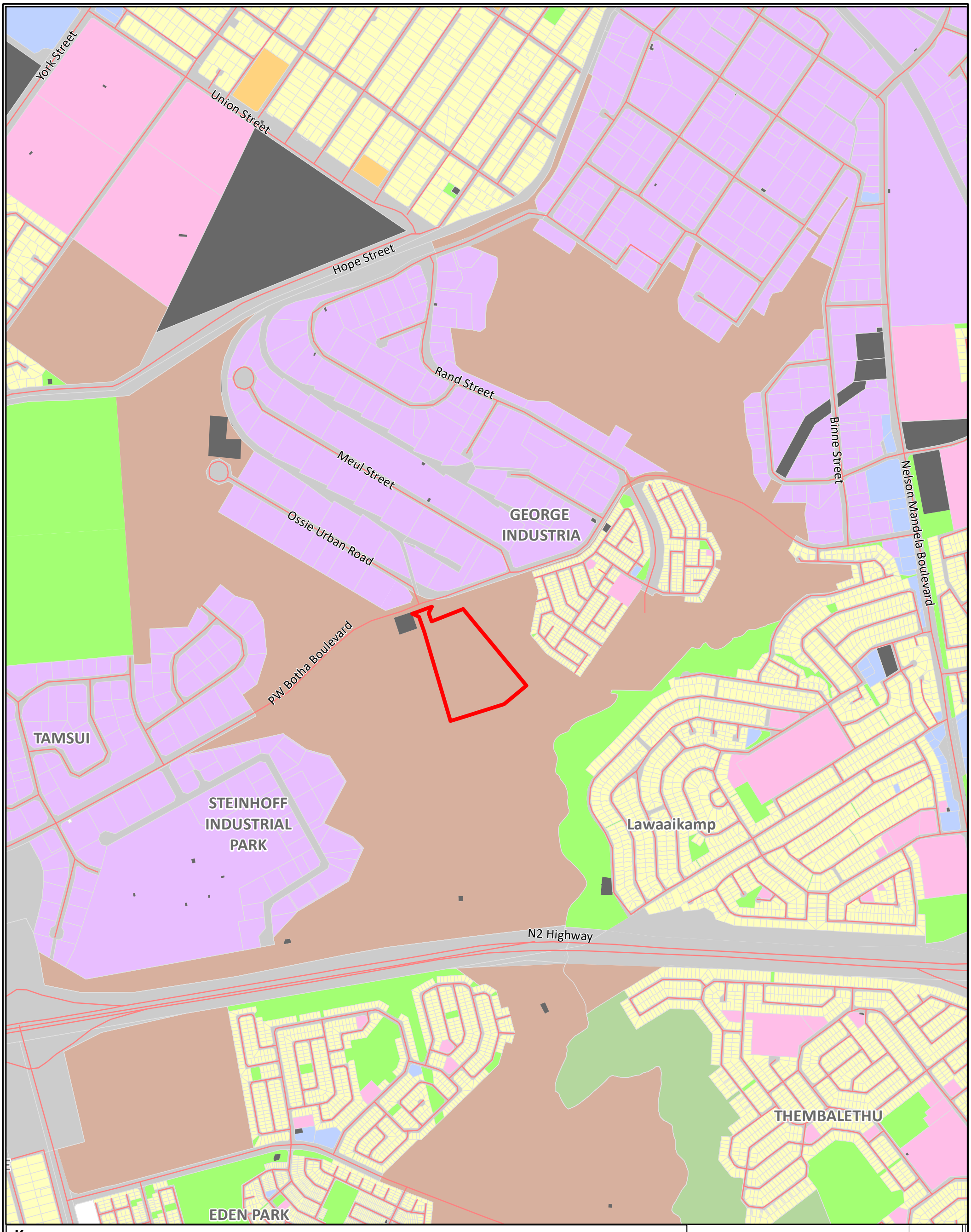
LOCAL CONTEXT

SCALE at A3 1:12 500 — 0 45 90 180 270 360 450 Meters

N

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Job: 25.325 | mxd: Local Context | Date: March 2025



Key

- Site Boundary: Bus Depot + Access Road (Approx. 5.54ha)
- Surrounding Properties
- Street Centerlines
- Agricultural Zones
- Single Residential Zones
- General Residential
- Industrial Zones
- Business Zones
- Undetermined Use Zones
- Community Zones
- Transport Zones
- Utility Zones
- Open Space Zones
- -
- -

Remainder Erf 464 George | **3.3**

ZONING

SCALE at A3
1:10 000

0 37,5 75 150 225 300 375 Meters

N

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Job: 25.325 | mxd: Zoning | Date: October 2025



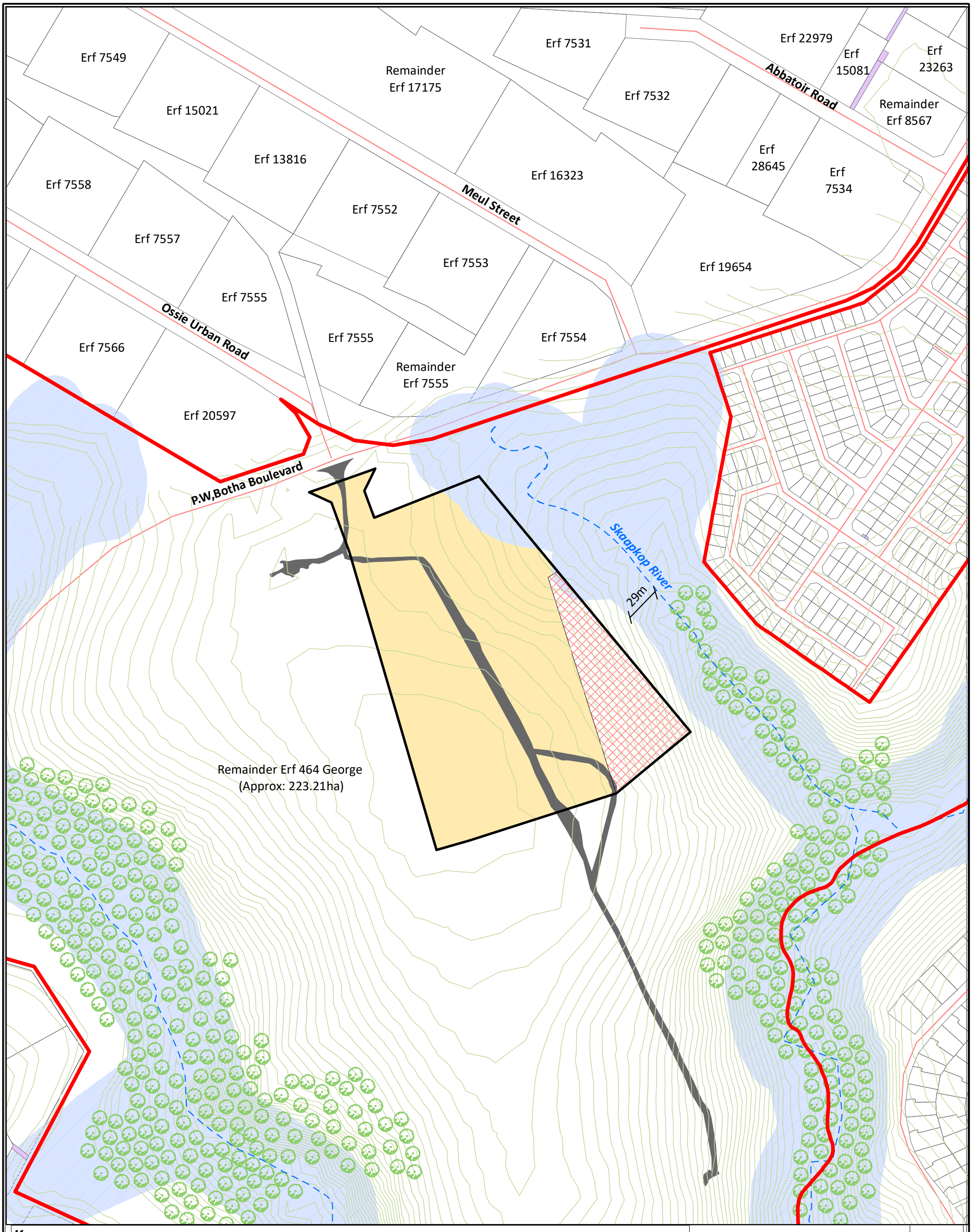
Key

- Site Boundary: Remainder Erf 464 George (Approx.223.21ha)
- Bus Depot + Access Road (Approx: 5.54ha)
- Surrounding Properties
- Street Centrelines
- Major Roads
- Contours (1m Intervals)
- Rivers
- -

Remainder Erf 464 George	**3.4**
CONTOURS	N
SCALE at A3 1:10 000 — 0 37,5 75 150 225 300 375 Meters	

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Job: 25.325	mxd: Contours	Date: September 2025



Key

- Site Boundary: Remainder Erf 464 George (Approx: 223.21ha)
- Bus Depot + Access Road (Approx: 5.54ha)
- Surrounding Properties
- Street Centrelines
- Contours (1m Intervals)
- Rivers
- Developable Area (Approx: 45 034.05sqm)
- River Buffer Area (29m)
- No EIA Authorisation (Approx: 8386.47sqm)
- Trees
- Unmade Road
- -

Remainder Erf 464 George	**3.5**
ENVIRONMENTAL INFORMANTS	
SCALE at A3 1:3 000 — 0 10 20 40 60 80 100 Meters	N

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Job: 25.325	mxd: Environmental	Date: Oct 2025

3.7 Services and Servitudes

Figure 3.6: Services & Servitudes records the services infrastructure on and around the site.

An 11 kV overhead line extends onto the proposed bus depot site from the south. The powerline is buried on site and continues to an existing substation adjacent to PW Botha Boulevard. De Villiers & Moore prepared an electrical report the bus depot and confirm that the overhead portion of the line will be placed underground and rerouted as part of the implementation of the bus depot.

The electrical report, attached as **Annexure 10: Electrical & Electronic Report**, confirms that there are no electricity capacity constraints that prevent the development of the bus depot.

An existing substation is located adjacent to PW Botha Boulevard, to the west of the proposed access road. Powerlines extend from the substation towards the west and east. The proposed bus depot subdivision lines are offset from the powerlines and do not interfere with the electrical infrastructure.

3.8 Public Transport

The Go-George bus routes are located on PW Botha Boulevard, York Street, Nelson Mandela Boulevard and Rand Street. There is a proposed road network linkage to the east of the site that is informed by the George Municipality Comprehensive Integrated Transport Plan (refer to **Figure 3.7: Public Transport**).

The proposed bus depot site is located on the existing bus route and does not require the bus routes to be altered.

3.9 Traffic and Transport Services

The depot site development is made in the context of the extension of George Industria via the Metro Grounds project.

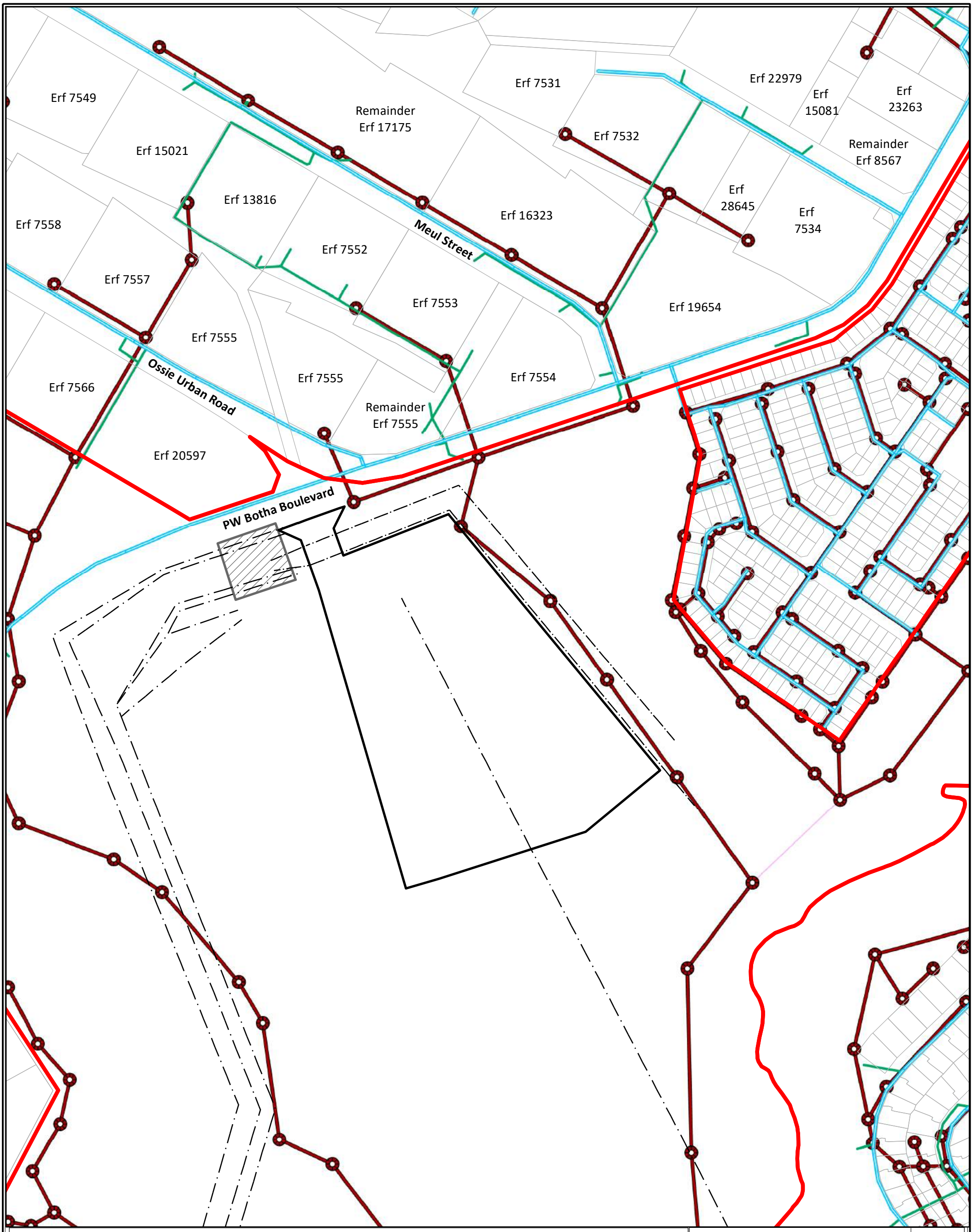
A traffic impact assessment (TIA) was undertaken for the Metro Grounds Industrial area, which considered access intersection spacing and the internal road network of the Metro Grounds development. The TIA, prepared by Urban Engineering, is attached as **Annexure 11: Traffic Impact Assessment (February 2025)**.

The Urban Engineering TIA (2025) makes reference to a 2021 TIA conducted to assess the proposed operations of a relocated bus depot onto Rem Erf 464, highlighting the need for mitigation measures including the installation of signals at the depot entrance, an extensive entrance lane to accommodate stacking, and the provision of car and bus parking bays.

The Metro Grounds industrial area and bus depot site shares access from PW Botha Boulevard. The 2025 TIA makes the following key findings and recommendations:

- The intersection of Ossie Urban and PW Botha Boulevard should be upgraded to a signalised intersection;
- The proposal for a 30m-wide road reserve from PW Botha Boulevard is deemed to be sufficient; and
- The first opportunity for the bus depot to take access for the new 30m-wide access road occurs at least 270m from PW Botha Boulevard.

The proposed 30m-wide road reserve from PW Botha Boulevard complies with the technical requirements of the TIA. Likewise, the access point to the bus depot is located approximately 290m from the intersection with PW Botha Boulevard.



Key

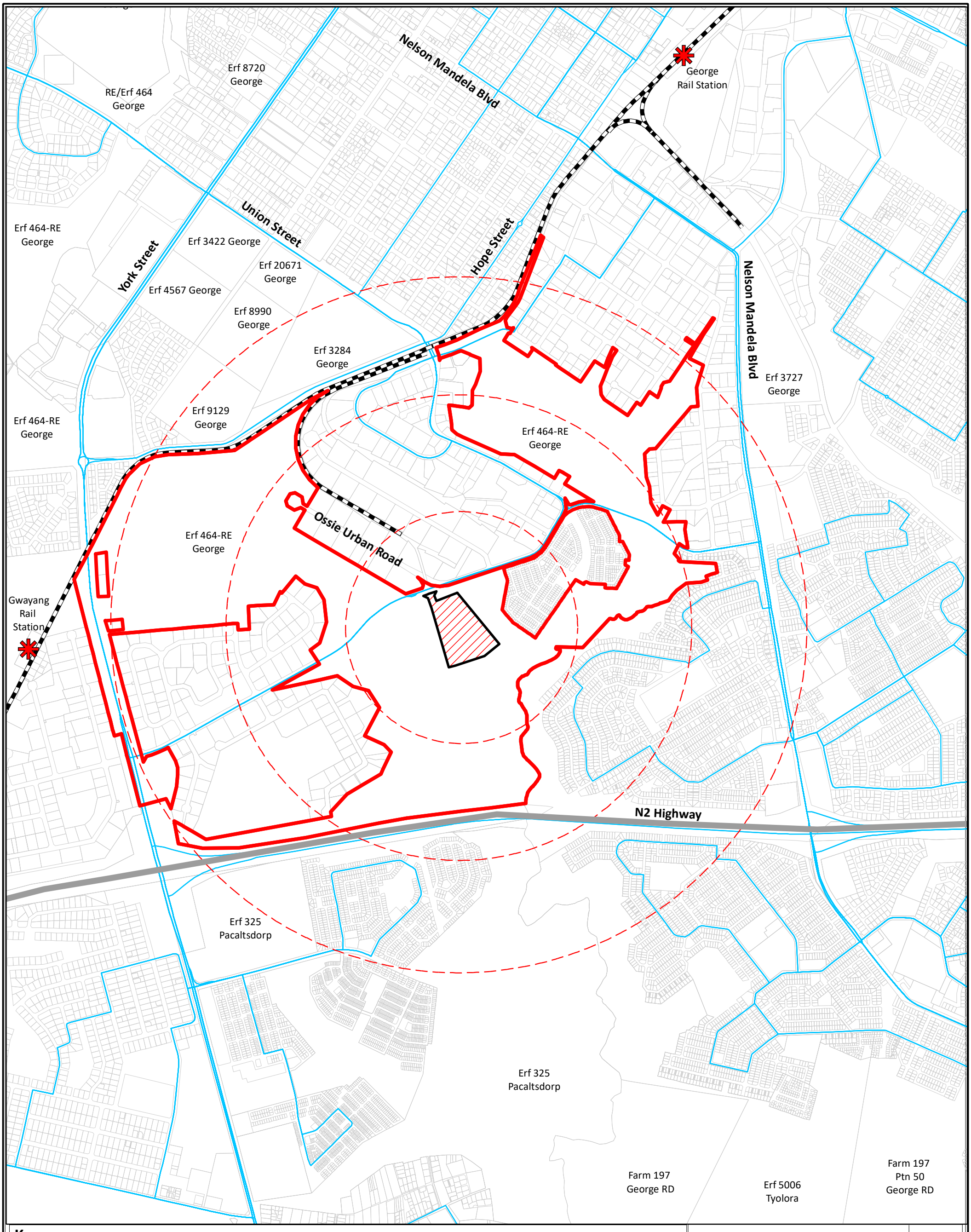
- Site Boundary: Remainder Erf 464 George (Approx: 223.21ha)
- Bus Depot + Access Road (Approx: 5.54ha)
- Surrounding Properties
- Gravity Pipe Line
- Water Pipes
- Stormwater Pipes
- Existing Substation
- Manhole
- Power Lines
- Pressure Sustaining Valve
- -
- -

Go George Relocation	**3.6**
SERVICES & SERVITUDES	N
SCALE at A3 1:3 000 — 0 10 20 40 60 80 100 Meters	

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Key

- Site Boundary: Remainder Erf 464 George (Approx.223.21ha)
- Surrounding Properties
- Bus Depot + Access Road (Approx: 5.54ha)
- Railway Station
- Railway Lines
- Go-George Bus Routes
- N2 Highway
- -
- -
- -
- -
- -

Go George Relocation	**3.7**
PUBLIC TRANSPORT	
SCALE at A3 1:15 000 — 0 55 110 220 330 440 550 Meters — N	

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Job: 25.325 | mxd: Public Transport | Date: March 2025

3.10 Civil Engineering Services

V3 Consulting Engineers prepared a report that assessed and considered the potential impact of a new bus depot on the municipal engineering services in the vicinity of Remainder Erf 464 George. The engineering services report is attached as **Annexure 13: Engineering Services Report.**

The report made the following findings:

- **Geotechnical and Site Conditions:** the site is generally suitable for development.

- **Bulk Water Supply:** The engineering services report indicates that "*a new 250mm water main (approximately 430 m) is required to connect the depot to the existing 250mm supply line in P.W. Botha Boulevard. Domestic and washing demand is estimated at 27.6 kℓ/day, with peak hourly demand at 1.05 ℓ/s. Two bus wash bays are recommended, with recycling systems to reduce potable water demand."*

- **Sewerage**: The engineering services report indicates that "*an existing 150mm sewer line is positioned to the East of the proposed development. No formal sewer connection exists to the site and would therefore have to be constructed from the existing sewer line up to the proposed bus depot*."

- **Stormwater**: The engineering services report indicates that there are "*no existing stormwater network serves the site. A Sustainable Drainage System (SuDS) approach is recommended, including a dry detention basin at the lowest point, bioretention features, infiltration measures, and rainwater harvesting. Energy-dissipating outlet structures are proposed to prevent erosion. Permeable paving is not recommended due to the potential for pollutant ingress and the presence of a clayey soil substrate.*"

The report does not raise any engineering-related impediments that prevents the development of the bus depot.

3.11 Title Deed Restrictions

There are no restrictive title deed conditions that prevents Remainder Erf 464 George to be used as a bus depot. The development proposals do not require the removal of restrictive title deed conditions.

4.0 MOTIVATION SUMMARY & CONCLUSIONS

The proposed development of a bus depot and access road on Remainder Erf 464 George is being undertaken to provide a more suitable location for the Go-George bus services.

Section 65 of the George Municipality's planning bylaw sets out the criteria for deciding applications. The preceding sections of this report showed how this proposal passes the tests set by section 65, including that the proposals:

- Are aligned with planning policy (WCPSDF, George SDF, George SE LSDF);
- Adhere to the development principles and requirements of SPLUMA, LUPA, NEMA and NHRA;
- Does not interfere with the ability of neighbouring and local property owners to use and enjoy their properties;
- Are compatible with the uses and zonings in the local area;
- Respond to site conditions by avoiding steeper areas;
- Do not interfere with existing utility services located on and around the site;
- Are located on a site that is adjacent to the existing bus route;
- Have been found to be acceptable from a traffic and transport perspective; and
- Does not interfere with the municipality's ability to provide utility services to the residents of George.

A bus depot serves as a hub for maintaining and dispatching buses, leading to more efficient and reliable public transport services. By enhancing mobility, a depot can help boost local businesses, increase job opportunities, and attract investment to the area.

It is for these reasons that we request the municipality to support the application.

_____

JONO Trust Professional Planners

Annexure 1:
POWER OF ATTORNEY

SPECIAL POWER OF ATTORNEY

I, the undersigned, JOHANNES FRANCISCUS KOEGELENBERG

Identity Number 7906085048081

hereby confirm that I am the mandated representative of:

Remainder Erf 464 George (the property)

and do hereby nominate, constitute and appoint

JONO TRUST Professional Planners

To make the necessary applications to the relevant Authorities to apply for:

- Rezoning in terms of Section 15 (2)(a) of the George Land Use Planning By-Law (2023) to permit a transport use.
- Subdivision in terms of Section 15 (2)(d) of the George Land Use Planning By-Law(2023).

AND generally for effecting the purposes aforesaid, to do or cause to be done whatsoever shall be requisite, as fully and effectually, for all intents and purposes, as WE might or could do if personally present and acting herein; hereby ratifying, allowing and confirming and promising and agreeing to ratify, allow and confirm all and whatsoever our said agent shall lawfully do, or cause to be done, by virtue of these present.

_____ SIGNED at George

(signed)

on this 3 day of October 2025
in the presence of the undersigned witnesses.

AS WITNESSES :

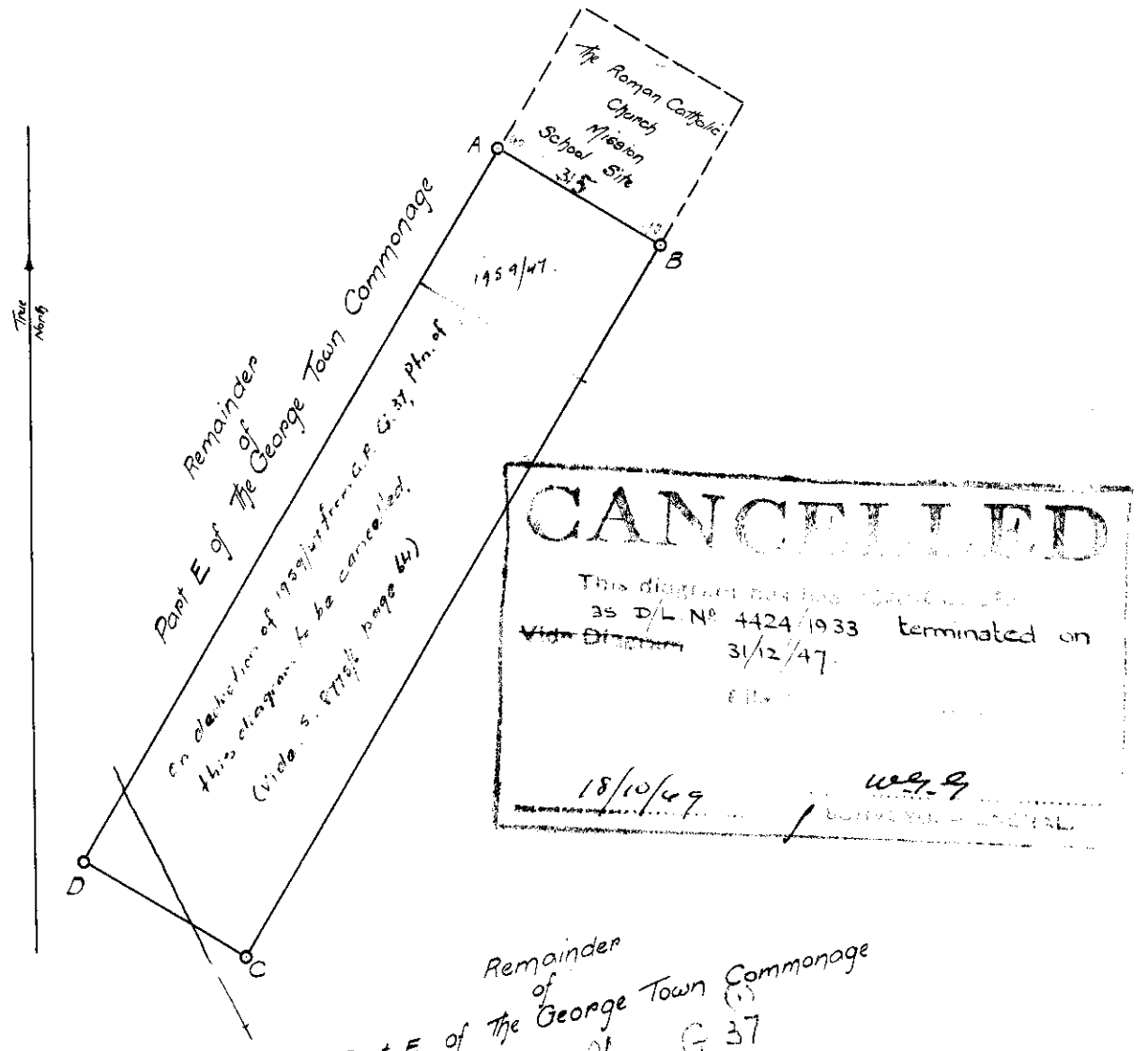
1._____

2._____

Annexure 2:
SG DIAGRAM

A3698/1931.

Approved for Purpose of Lease
C.M. Walton
p. Surveyor-General
7 - OCT 1931



SIDES Cape Feet		ANGLES OF DIRECTION		CO-ORDINATES y	x
AB	315·0	300 · 45 · 0	A	− 2282·4	+ 1110·7
BC	1371·4	30 · 45 · 0	B	− 2553·1	+ 1271·8
CD	315·0	120 · 45 · 0	C	− 1851·9	+ 2450·4
DA	1371·4	210 · 45 · 0	D	− 1581·2	+ 2289·3

Description of Beacons.

- A. 18" Iron peg, 5/8 diameter.
- B. 18" " , 5/8 "
- C. Planted Stone 8"×6", centre point marked by 18" Iron peg (5/8" diameter) alongside.
- D. Planted Stone 6"×6", centre point marked by 18" Iron peg (5/8" diameter) alongside.

Scale: 300 Cape Ft. = 1 inch

The figure A B C D _____ *represents* 4 *Morgen* 8639 *Square Feet of land, called* The Roman Catholic Church Mission School Site Extension _____ portion of Part E of The George Town Commonage *situate in the DIVISION of* George _____ *PROVINCE of CAPE of GOOD HOPE.*

Surveyed in May 1929 *by me for the purpose of a lease*

T. J. Pascual

Land Surveyor.

This diagram is annexed to ~~Transfer~~ *Deed No.* *dated* *in favour of*

Registrar of Deeds.

The original diagram is No. 1293, 1920 *annexed to Title Deed* ~~No.~~ George Qts. 15.15. *dated* 15·6·1922 *in favour of* The Council of the Municipality of George.

over erf 4614 George.

L. 1027/1931
S 8775/6

OFFICE COPY

K[illegible]

No. 8591/60

SIDES *Cape Feet*		ANGLES OF DIRECTION		SYSTEM L° 23° CO-ORDINATES *y*	*x*
		Constants		+100 000.0	+11900 000.0
AB	154.4	355.32.00	A	+62234.4	+36653.5
BC	194.1	335.25.40	B	+62222.4	+36807.5
CD	318.0	68.55.30	C	+62141.7	+36984.0
DE	146.2	163.08.20	D	+62438.4	+37098.4
EF	120.0	174.10.00	E	+62480.8	+36958.5
FG	72.3	81.53.30	F	+62493.0	+36839.1
GH	166.9	176.15.20	G	+62564.6	+36849.3
HA	342.4	265.05.30	H	+62575.5	+36682.8

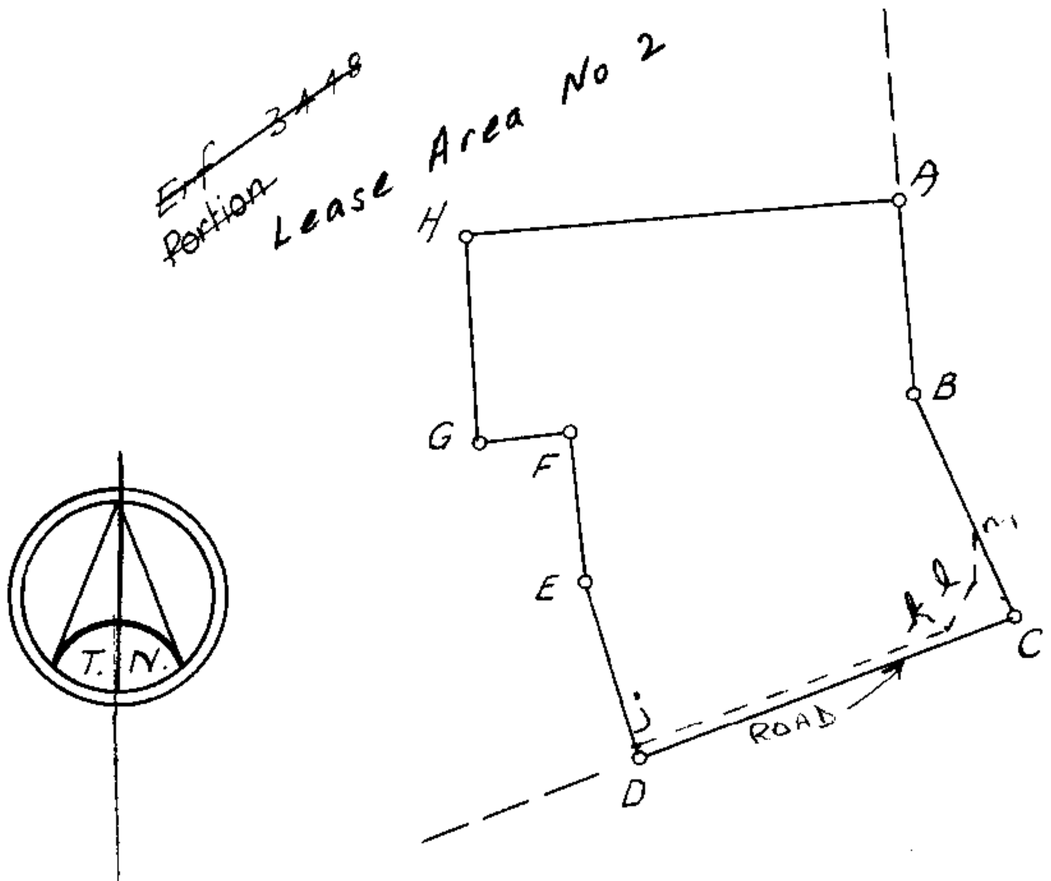
Beacons
A B D E F G H 1"x3ft Round Iron Peg
C 3ft Iron Standard

Approved.

J. de Smidt.
Surveyor-General.

Figure jklm CD is road created E 2081/2002

~~Erf 3448~~ Portion
Lease Area No 2



Scale 1 : 2500

The figure ABCDEFGH

represents 1·4274 Morgen *of land being*

LEASE AREA NO 1 OVER ERF 464 GEORGE

~~Erf~~ ~~Portion 3449 (a ptn. of Erf 464) George~~

situate in the Municipality & Division of George *Province of Cape of Good Hope*

R.R. *Surveyed in* August 1948 June 1960 *by* ~~me~~ us

For Lease Purposes

T.J. Hascall
Ronald Ross.
Land Surveyors

This diagram is annexed to	*The original diagram is* No.1293/1920 *annexed to* D/G Geo. Q. 15.15. (Ded. Plan. G. 37.)	*File No.* 5/8775/15 S *S.R. No. E.* 1955/60 BL - 700/W.3 B
Registrar of deeds.		LEASED

A S.P.C.T.—A5539

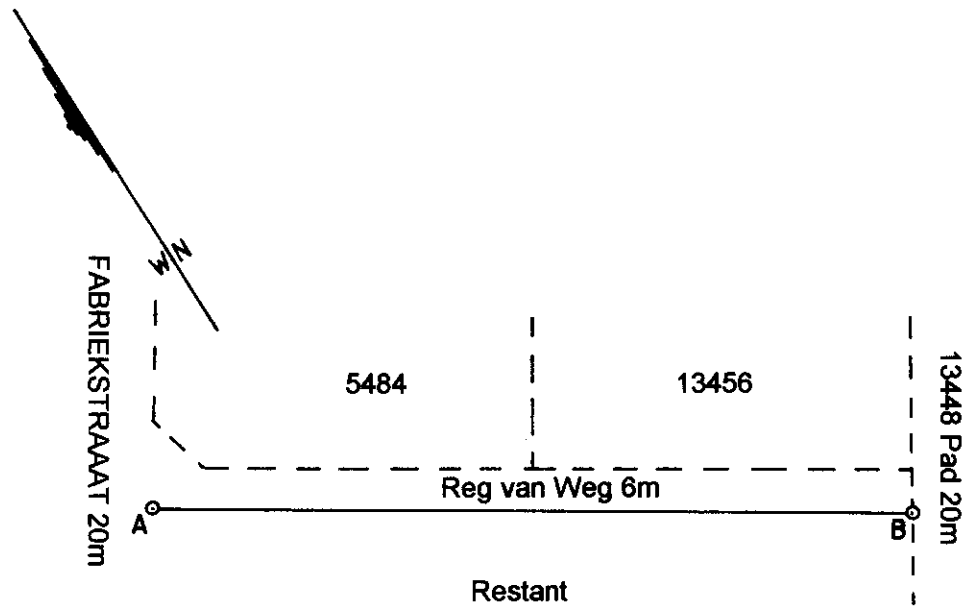
8591/60

SERVITUDE DOM.

SYE Meter		RIGTINGS-HOEKE	KOÖRDINATE	Y Stelsel WG 23°	X	L.G. No. 4244/2003
		KONSTANTE	+	0,00	+ 3 700 000,00	
AB	100,00	302 05 20	A +	49 699,46	+ 61 291,87	
			B +	49 614,73	+ 61 344,99	Goedgekeur
		31CD25 ⊕	+	49 558,98	+ 61 157,78	AMS
		33CD25 ⊕	+	49 813,07	+ 61 229,81	Landmeter-generaal
						2003.10.09

Bakenbeskrywing

A B..... 16mm Ysterpen.



SKAAL 1:1 000

Die lyn A B
stel voor die suid-westelike grens van 'n Reg van Weg 6m wyd oor die Restant van ERF464 GEORGE
geleë in die
Munisipaliteit en Administratiewe Distrik George Provinsie Wes-Kaap.

Opgemeet in Mei 2003 deur my

Professionele Landmeter
C P M Rautenbach PLS 0509

Hierdie diagram is geheg aan Transportakte No. Gedateer t.g.v. Registrateur van Aktes	Die oorspronklik diagram is No $^{B}_{A}$ 1293/1920 geheg aan Grondbrief No. Geo. Q15 - 15	Lêer No. S/8775/55 M.S. No. 1919/2003 Kompilasie BLSX-3412 (M 4452) Ded. Plan G37 (2281) Portfolio 98 LPI C0270002

SERVITUDE DOM. 4244/2003

LEASEHOLD COPY

OFFICE COPY

SIDES Metres		ANGLES OF DIRECTION		CO-ORDINATES Y System L°23°	X
		Constants		+ 50 000,00	+ 3 760 000,00
AB	54,03	370 · 50 · 10	A	+ 1947,04	+ 830,32
BC	132,36	311 · 22 · 20	B	+ 1906,16	+ 925,65
CD	41,91	0 · 59 · 50	C	+ 1806,38	+ 1013,53
DE	35,23	62 · 14 · 0	D	+ 1907,11	+ 1055,43
EF	62,22	46 · 23 · 40	E	+ 1838,28	+ 1071,84
FG	44,37	34 · 44 · 50	F	+ 1883,33	+ 1114,75
GH	13,00	38 · 28 · 0	G	+ 1908,62	+ 1151,21
HJ	147,83	128 · 28 · 0	H	+ 1916,71	+ 1161,39
JA	138,44	205 · 29 · 50	J	+ 2032,46	+ 1069,43
GK	143,12	308 · 28 · 0	G	+ 1908,62	+ 1151,21
KL	7,47	266 · 49 · 10	K	+ 1796,56	+ 1240,24
LM	95,77	225 · 10 · 20	L	+ 1789,10	+ 1239,83
MN	18,78	236 · 25 · 40	M	+ 1721,18	+ 1172,81
NO	38,85	318 · 34 · 10	N	+ 1705,53	+ 1161,92
			O	+ 1679,82	+ 1191,05

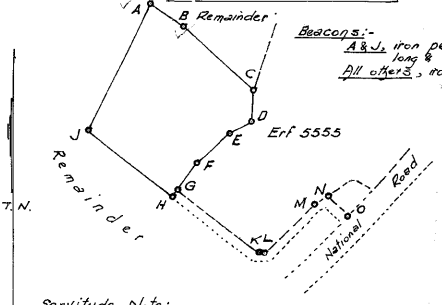
S.G. No.

L 8858/72

Approved

Surveyor-General

16.1.73



Beacons:-
A & J, iron peg 750 m.m. long & 18 m.m. dia.
All others, iron peg 12 m.m. dia.

WITHDRAWN
SEE FILE S 8775
PAGE 3 OF 8
SURVEYOR-GENERAL
2004-11-17

Servitude Note:- The broken lines GK, KL, LM, MN & NO represent the N.E., N. & N.W. sides of a Servitude Road 13 m. wide, as shown.

Scale: 1/5000

The figure ABCDEFGHJ

represents 3,2713 Hectares of land, being

Lease Area ~~a portion of~~ Erf 464 George situate on

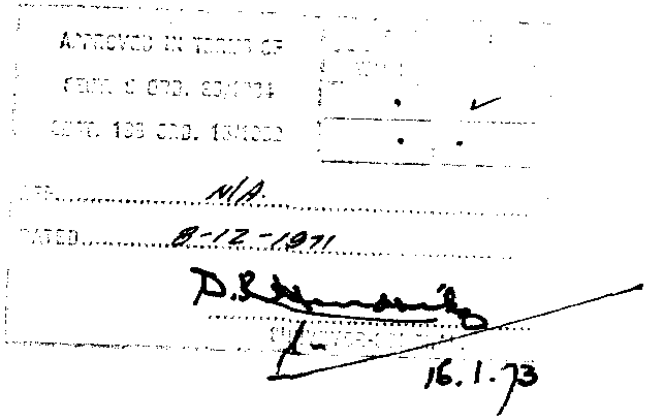
~~situate~~ in the Municipality and

Administrative District of George, Province of Cape of Good Hope.

Surveyed in March 1972 by me,

Land Surveyor

This diagram is annexed to	The original diagram is	File No. S/8775/119
No. D/S K427/1974 dated 4/4/1974 L i.f.o.	No. 1293/1920 annexed to Grant No. Geo. Q. 15. 15 Filed as plan G37(2281)	S.R. No. E 2367/72 Comp. BL-70DD ~~Y 32~~ Gen. Plan 3cc(5279)
Registrar of Deeds		



Municipality of George.

I certify that the lawful requirements of my Council, arising out of this survey, have been complied with.

for Town Clerk
16/11/72

LEASEHOLD DOM.

OFFICE COPY

SIDES Metres		ANGLES OF DIRECTION		CO-ORDINATES Y System Lo 23°		X
		Constant		± 0,00		+3700 000,00
AB	314,87	265.04.20	A	+ 48 764,03	+	61 204,21
BC	195,67	354.57.30	B	+ 48 450,33	+	61 177,16
CD	95,42	32.00.00	C	+ 48 433,13	+	61 372,07
DE	1,93	33.17.50	D	+ 48 483,70	+	61 452,99
EF	241,11	84.58.30	E	+ 48 484,76	+	61 454,60
FG	77,38	170.41.50	F	+ 48 724,94	+	61 475,72
GA	196,95	172.14.40	G	+ 48 737,45	+	61 399,36

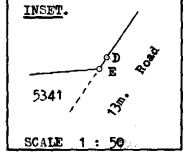
S.G. No.
L 9547/73

Approved
for Surveyor-General
19-7-1974

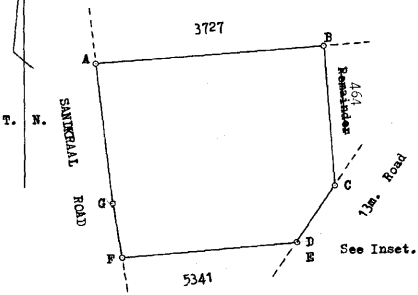
Beacons:

	Δ Geo 9	+ 50 788,27	+ 55 472,47
	Δ Oud 7	+ 56 603,60	+ 51 940,04
A.	Wooden corner fence post.		
B.	25mm. round iron peg next to concrete block.		
C.D.E.F.G.	20mm. round iron pegs.		

INSET.



SCALE 1 : 50



Scale: 1 : 5 000

The figure A.B.C.D.E.F.G.

represents 8,2019 Hectares of land, being

a LEASE AREA ON ERF 464, GEORGE.

situate in the Municipality and

Administrative District of GEORGE. Province of Cape of Good Hope.

Surveyed in FEBRUARY - OCTOBER, 1972.

by me. Land Surveyor

This diagram is annexed to	The original diagram is	File No. S.8775/55/3
		S.R. No. E.2327/73
No	No. B1293/1920 annexed to	Comp. BL-7DD/Y4 & 5 (1757) (1759).
dated	~~Transfer~~/Grant	
i.f.o	No. Geo.Q. 15-15.	Dep. Plan G37 (2281).
Registrar of Deeds		

B

S

APPROVED IN TERMS OF	CONDITIONS	
	WITH	WITHOUT
SECT. 9 ORD. 33/1934		✓
SECT. 196 ORD. 15/1952		

REF. N/A

DATED. 9/6/1972

SURVEYOR-GENERAL.

COOSEN, CLOUGH & WHITE
LANDMETER ... SURVEYORS
Postbus/P.O. Box 60 George Tel. 3810

DUMMY TRIPLICATE.

Dgm No A/1293/1920

GEORGE TOWN COMMONAGE.

*Now Erf 464
GEORGE

Filed as Plan No 3cc (5279)

D.O. copy filed as Commonage Plan No 14.

S.G. Outline Copy filed as Plan G 37. (2281)

Tracing (w/o deductions) No 823A

Geo. Q. 15-15

Portfolio 98 Outline Gen Plan S (2670)

Geo. Q. 15-15

S/8775/56.

S/8775

B C

BL-TDD
V.44

464

SERVITUDE DGM.

Bailey & le Roux, Professional Land Surveyors, George

SIDES Metres		ANGLES OF DIRECTION	CO-ORDINATES Y System WG 23° X		
				0,00	+3 700 000,00
AB	145,40	36.47.00	A	+51 821,88	+59 825,21
BC	40,01	13.56.40	B	+51 908,95	+59 941,67
CD	14,24	351.57.50	C	+51 918,59	+59 980,50
			D	+51 916,60	+59 994,60
EF	80,86	353.22.00	E	+51 913,07	+60 024,63
FG	84,65	19.19.40	F	+51 903,73	+60 104,95
GH	14,15	334.15.30	G	+51 931,75	+60 184,83
			H	+51 925,60	+60 197,58
		96P4	⊕	+51 147,60	+60 680,77
		16CD24	⊕	+53 499,12	+59 258,20

S.G. No.

1426/2009

Approved

for Surveyor-General

2009.04.07

Sheet 1 of 2 sheets

Beacon Descriptions:
A,B,C,D,E,F,G,H 12mm iron peg

The lines A B C D and E F G represent the north western and western boundaries respectively of a

Water pipe line Servitude 3m wide as shown over Remainder Erf 464 George

situate in the Municipality and
Administrative District of George
Province of the Western Cape
Surveyed in February 2009
by me

J.H. Bailey (PLS0019)
Professional Land Surveyor

This diagram is annexed to No. dated i.f.o. Registrar of Deeds	The original diagram is SG. No. B1293/1920 annexed to Deed of Grant No. Geo.Q.15-15 Filed as Plan 3CC (5279)	File No. S/8775/106 S.R. No. **499/2009** Comp. BL-7DD/X32 (1749) **Deduction Plan 2281** **Portfolio 98**

SERVITUDE DGM.

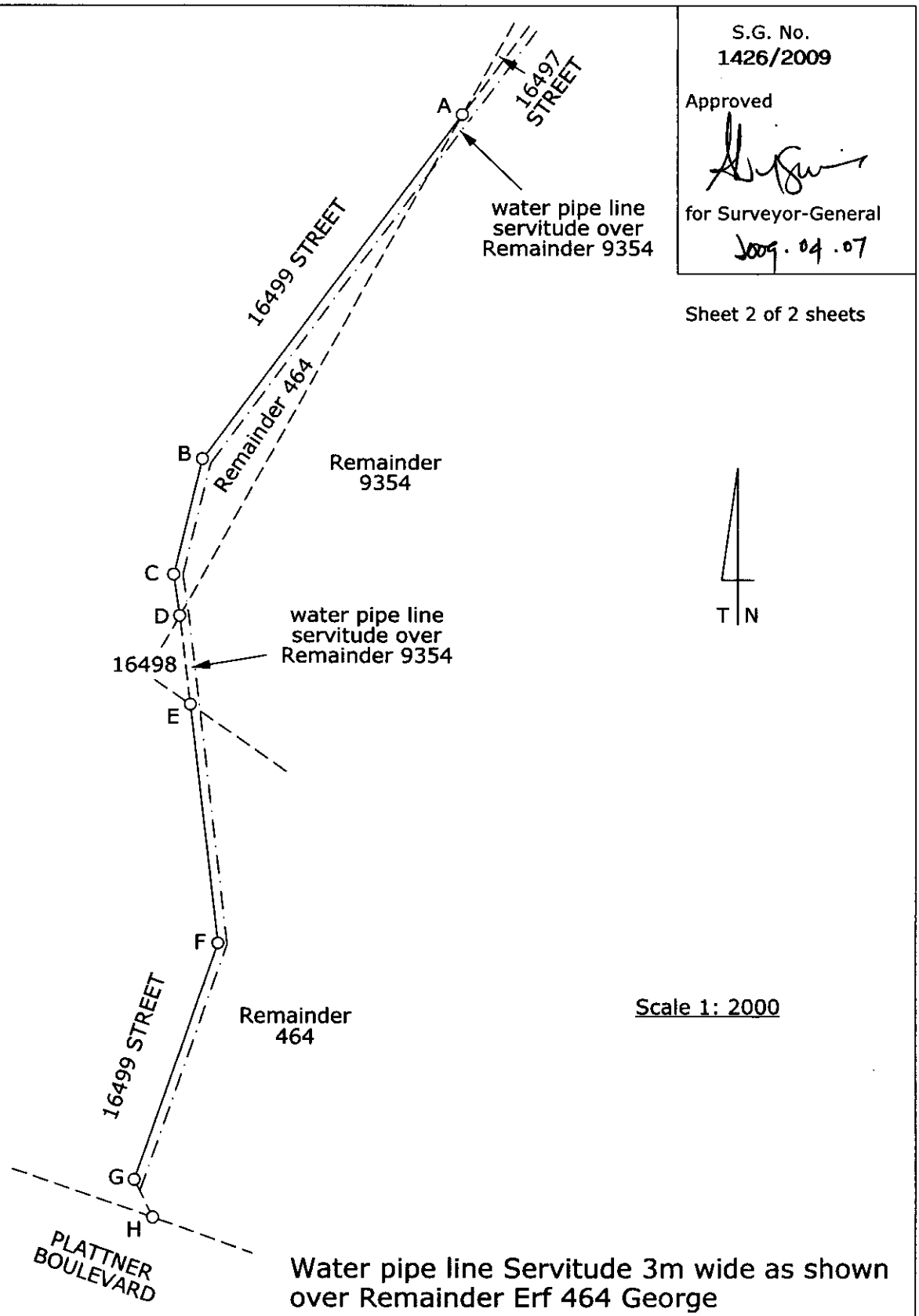
Bailey & le Roux, Professional Land Surveyors, George

S.G. No.
1426/2009

Approved

for Surveyor-General
2009.04.07

Sheet 2 of 2 sheets



Scale 1: 2000

Water pipe line Servitude 3m wide as shown over Remainder Erf 464 George

situate in the Municipality and
Administrative District of George
Province of the Western Cape
Surveyed in February 2009
by me

J.H. Bailey (PLS0019)
Professional Land Surveyor

SERVITUDE DGM.

SIDES Metres		ANGLES OF DIRECTION		CO-ORDINATES Y System: WG23° X		
		Constants:			0,00	+3700 000,00
AB	202,06	324 29 20	A	+	53 713,38	+ 62 384,34
BC	607,11	339 24 10	B	+	53 596,01	+ 62 548,82
CD	99,70	33 21 00	C	+	53 382,44	+ 63 117,13
DE	388,32	339 08 00	D	+	53 437,25	+ 63 200,41
EF	677,69	22 57 50	E	+	53 298,93	+ 63 563,26
			F	+	53 563,34	+ 64 187,24
	GEO 3	116	△	+	51 698,51	+ 62 331,89
	GEO 14	127	△	+	59 635,81	+ 64 646,01

S.G. No.
762/2019
Approved

for SURVEYOR-GENERAL
28-05-2019

SHEET 1 OF TWO SHEETS

Description of Beacons
A,B,C,D,E : Centre of wood monopole
F : Centre of steel monopole

EXEMPT FROM PROVISIONS OF ACT 70 OF 1970
SECTION 2(a)

The line a B C D E f represents

the centre line of an electric power transmission servitude extending 11,00 metres on each side of the line a B C D E f

over the remainder of

ERF 464 GEORGE

situate in the Municipality of George
Administrative District of George
Province of the Western Cape

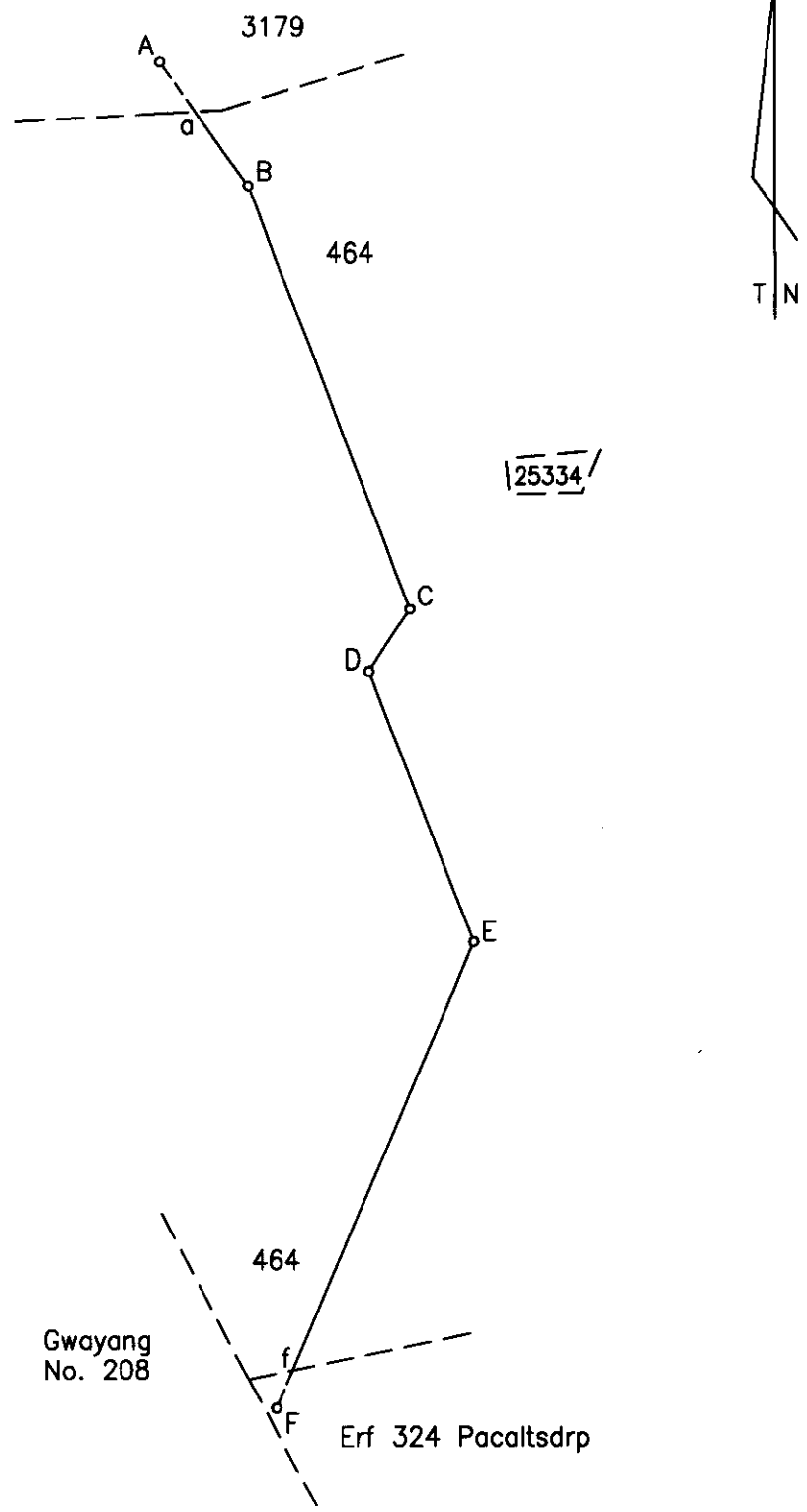
Surveyed in May 2015 – September 2018 by me

B.H. KRUGER. (PLS 0321)
Professional Land Surveyor

Exempt i.t.o Section 24(1)(f)
Of Municipal Bylaw of Act 3/2014
Ref: Various Erven George
Date: 5 February 2019

This diagram is annexed to No. d.d. i.f.o. Registrar of Deeds	The original diagram is S.G. No. B1293/1920 Grant Geo. Q. 15-15 Filed as Plan 3cc (5279)	File S/110, S/6018/1 S.R. 492/2019 Comp. BL-7DDC (4134) AL-1BBA (6484) Deduction Plan (2281) LPI C0270002

SERVITUDE DGM.



S.G. No.
762/2019
Approved

for
SURVEYOR-
GENERAL
28-05-2019

SHEET 2 OF
TWO SHEETS

Scale: 1/10000

an electric power transmission servitude
over the remainder of
ERF 464 GEORGE
situate in the Municipality of George
Administrative District of George
Province of the Western Cape

Surveyed in May 2015 – September 2018 by me

B.H. KRUGER. (PLS 0321)
Professional Land Surveyor

Serv. Dgm. 762/2019

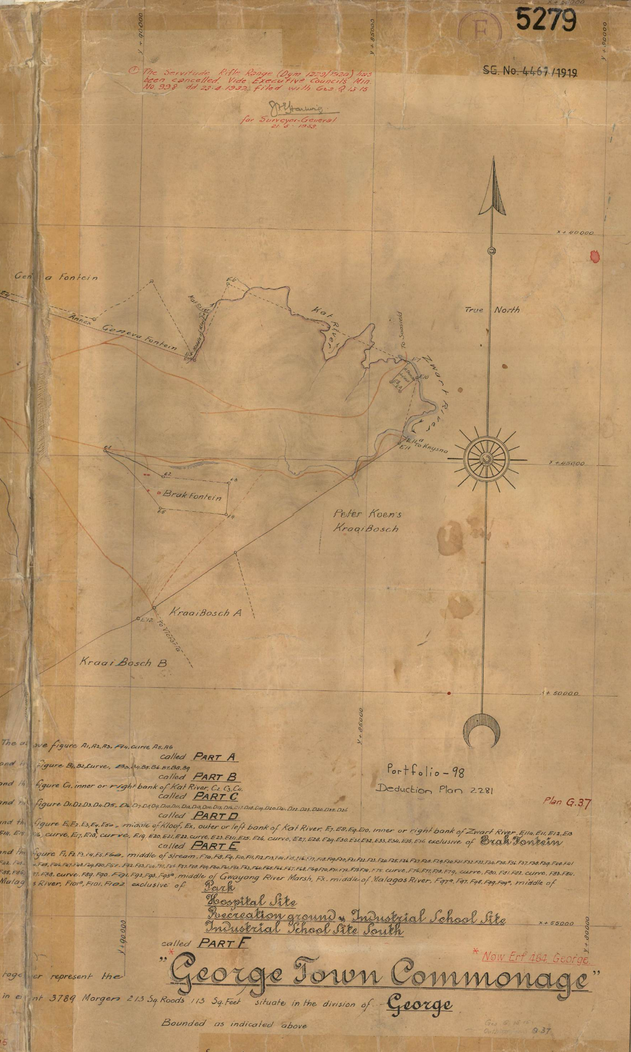
5279

B.1293/1920

B.R93/1920

1167/1914





The figure A,B,C,D,E,F,G,H,J,K,L,M,N,P,Q called **PART A**

and the figure R,S,T,U,V,W,X,Y,Z,A1,B1,C1,D1 called **PART B**

and the figure E1,F1,G1,H1,J1,K1,L1,M1,N1,P1,Q1,R1,S1,T1,U1,V1,W1,X1,Y1,Z1,A2,B2,C2,D2 called **PART C**

and the figure D1,D2,D3,D4,D5,E1,E2,D1 called **PART D**

and the figure E1,E2,E3,E4,E5,E6 ... middle of Kloof, E1 outer or left bank of Kaai River, E2, E3, E4, E5, E6 inner or right bank of Zwaai River, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23, E24, E25, E26, E27, E28, E29, E30, E31, E32, E33, E34, E35, E36, E37, E38, E39, E40, E41, E42, E43, E44, E45, E46,

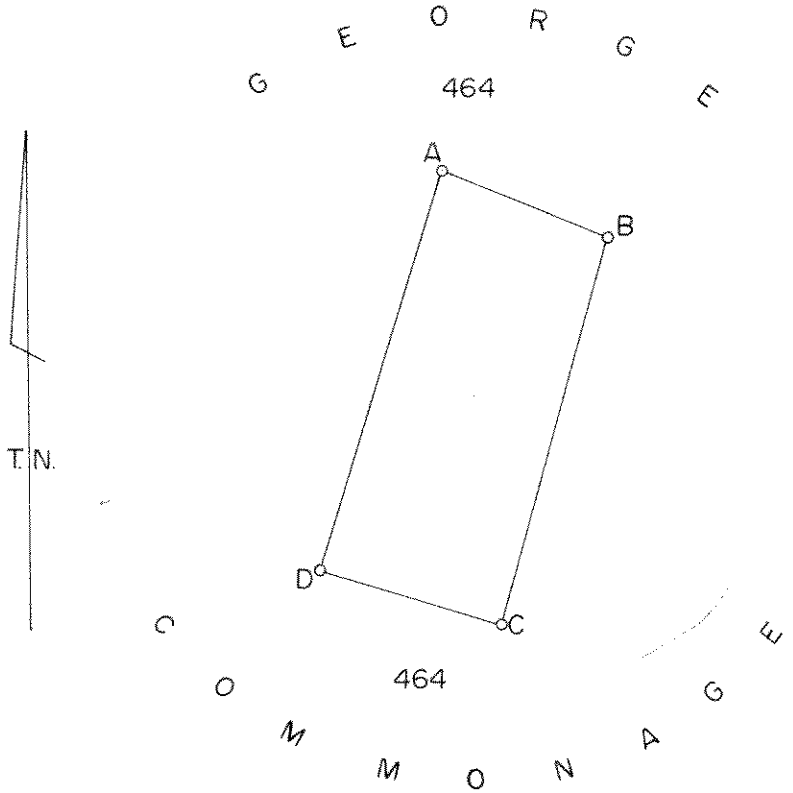
HUURKONTRAK-KAART
LEASEHOLD DIAGRAM

OFFICE COPY

SIDES Cape Feet		ANGLES OF DIRECTION	CO-ORDINATES Y System Lo 23° X		
		Constants		+ 100 000.00	+ 11900 000.00
AB	190.15	291.45.00	A	+ 67 044.65	+ 39 966.31
BC	420.25	16.00.20	B	+ 66 868.04	+ 40 036.77
CD	199.15	106.48.10	C	+ 66 983.91	+ 40 440.73
DA	436.63	197.18.30	D	+ 67 174.56	+ 40 383.16

S.G. No.
4830/69
Approved
Surveyor-General
23.10.1969

All beacons are Round Iron Pipes $\frac{3}{4}$" diameter



WITHDRAWN
SEE FILE S/ 8775 PAGE 358
for SURVEYOR-GENERAL
2004-11-11

Scale: 1 : 2500

The figure A. B. C. D.
represents 83229 Square Feet of land, being
a lease area ~~ERF 4440~~ ~~(Portion of~~ over Erf 464 GEORGE
situate in the Municipality and Administrative District
of George Province of Cape of Good Hope.
Surveyed in January and July 1969
by me,

Land Surveyor

This diagram is annexed to	The original diagram is	File No. 5\8775 V.1
No. dated i.f.o.	No. B1293/1920 annexed to filed as 3cc(5279) ~~Transfer/~~Grant No. Geo. Q 15.15	S.R. No. E 1318/69. Comp. BL-7DD, BL-700/W3. Outline Plan G37(2281) ~~Portfolio 98~~ LPI C0270002
Registrar of Deeds		

Leasehold Diam. ~~Serv.~~ 4830/1969

LEASEHOLD DGM.

OFFICE COPY

SIDES Metres		ANGLES OF DIRECTION		CO-ORDINATES Y System L°23	X
		Constants		+ 50 000,00	+3761000,00
AB	398,50	264·19·50	A	+ 2047,85	+ 525,67
BC	250,94	354·19·50	B	+ 1651,30	+ 486,30
CD	398,50	84·19·50	C	+ 1626,51	+ 736,01
DA	250,94	174·19·50	D	+ 2023,06	+ 775,38
		Geo. 3	▲	+ 51650,26	+3762036,31
		George Town Peak	▲	+ 49649,53	+3753731,23

S.G. No.

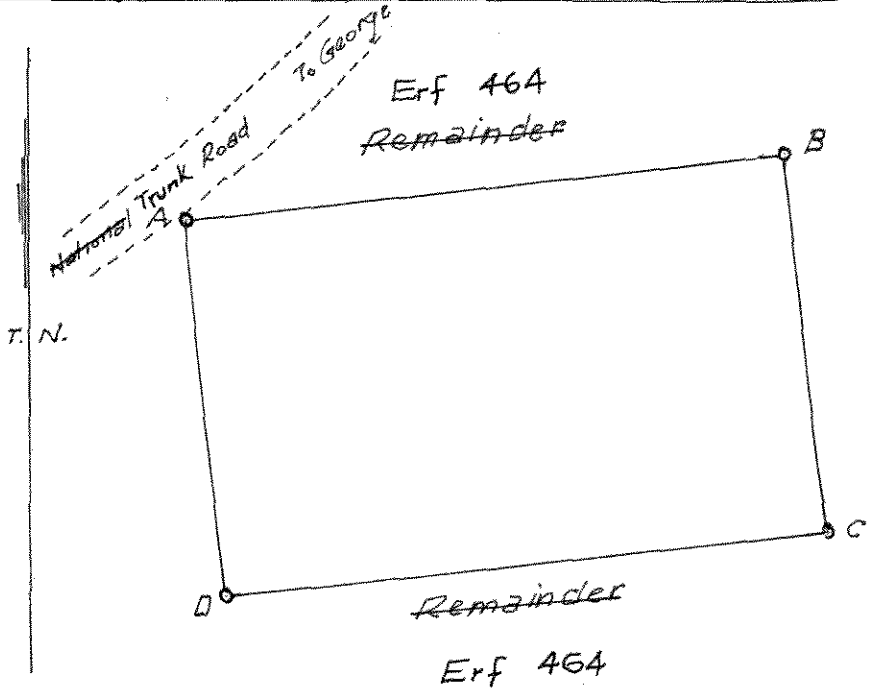
5508/80

Approved

W.W. Dehning.

for Surveyor-General

28-10-1980



Beacons:-

A.B.C&D, iron peg 37 m.m. dia.

WITHDRAWN

SEE FILE S/ 8775/855 PAGE 330

A.J.R. Cawood

1990. 3. 22 SURVEYOR-GENERAL

Scale: 1/5000

The figure A B C D

represents 10,0000 Ha. of land, being

Lease Area on Erf 464 George

situate in the Municipality and

Administrative District of George, Province of Cape of Good Hope.

Surveyed in Sept. 1980

by me, T. Pascual. Land Surveyor

This diagram is annexed to	The original diagram is	File No. S/8775/55 V.1
No. dated i.f.o.	(filed as Plan 3cc (5279)) No. B/293/1920 annexed to ~~Transfer~~/Grant No. Geo. Q. 15. 15	S.R. No. E 1759/80 Comp. BL-TDDC (4134) BL-TDD/Y34 (6518) Deduction Plan G-37 (2281 Sht. 3+4) LPI C0270002
Registrar of Deeds		

Leasehold Dgm. 5508/1480

LEASEHOLD DGM.

OFFICE COPY

SYE Meter		RIGTINGS-HOEKE	KOORDINATE Y Stelsel: WGS84 23° X		
			Konstantes:	± 0,00	+3700 000,00
AB	145,65	304 49 00	A	+ 51 913,08	+ 60 024,67
BC	85,40	86 41 00	B	+ 51 793,50	+ 60 107,83
CD	104,48	356 42 50	C	+ 51 878,76	+ 60 112,77
DE	9,50	115 09 40	D	+ 51 872,77	+ 60 217,08
EF	46,87	109 14 10	E	+ 51 881,37	+ 60 213,04
FG	14,15	154 19 20	F	+ 51 925,62	+ 60 197,60
GH	84,65	199 20 40	G	+ 51 931,75	+ 60 184,85
HA	80,86	173 20 40	H	+ 51 903,71	+ 60 104,98
		93P4	⊕	+ 51 007,78	+ 60 463,60
		96P4	⊕	+ 51 147,60	+ 60 680,77

L. G. No.
3015 / 2022
Goedgekeur
nms.
LANDMETER-GENERAAL
2023-01-20

Bakenbeskrywings:

A, B, C, D, E, F, G, H.....12mm Ysterpen

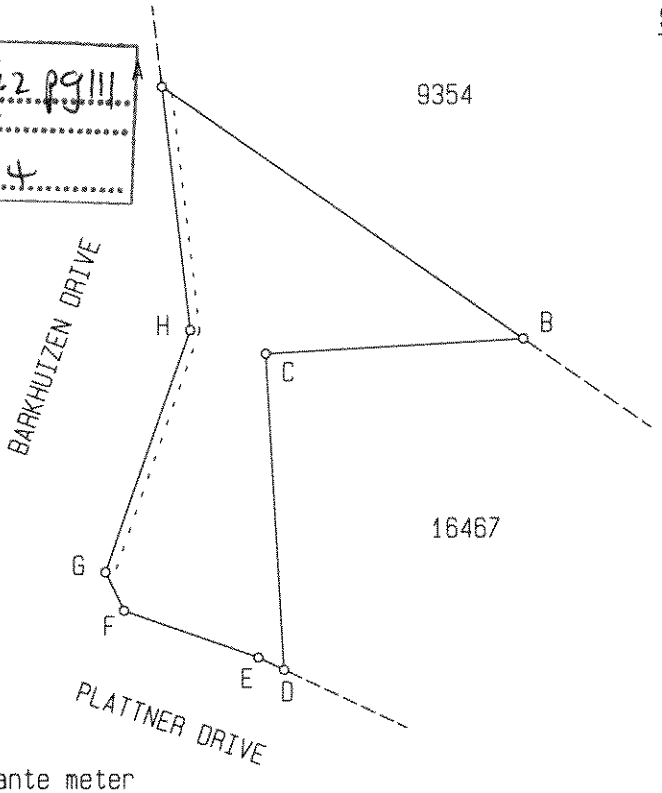
Serwituut Nota:

Die lyn AHG stel voor die Westelike grens van n Waterpyplynserwituut, 3.00m wyd soos aangetoon, Sien Lg Kaart No.1426/2009.

T N

Skaal 1:2500

Withdrawn
See S/8775/106 V2 P9111
For Surveyor General
Date: 19.06.2024



Die figuur ABCDEFGH
stel voor 9145 Vierkante meter grond synde
L10
Huurgebied oor die Restant van Erf 464 GEORGE.

Geleë in die Munisipaliteit en
Administratiewe Distrik: George
Provinsie Wes-Kaap

Opgemeet in April 2022
deur my

W.J. Gildenhuys

H J Gildenhuys (PLS 1133) Pr. Landmeter

Hierdie kaart is geheg aan	Die oorspronklike kaart is	Lêer Nr.S/8775/119 Vol.3
No.	LG. No. B1293/1920	M.S. No. 1786/ 2022
ged.	annexed to Deed of Grant No. Geo.Q.15-15	Komp. BL-700/X32 (1749)
t.g.v.		Deduction Plan: G.37(2281)
Registrateur van Aktes		LPI C0270002

EXEMPT FROM PROVISIONS OF ACT 70 OF 1970
SECTION 1(a)

Exempt i.t.o. Section 24(1)(f)
of Municipal Land Use Planning Bylaw
Ref: Portion of the Remainder Erf 464 (Erf 16467) George
Date: 31 October 2022

Huurgebied ~~oor Erf 464 George~~

B1293/1920

1:6250

DEDUCTION PLAN NO 2281

G.37 (2281)

OF ERF 464 GEORGE

SHEET 2

THIS PLAN CONSISTS OF 4 SHEETS

For deductions see portfolio no. 98

SHEET 1 JOINS HERE

SHEET 4 JOINS HERE

+49 000 M | +48 000 M | +47 000 M | +46 000 M | +45 000 M

+3 757 000 M

+3 758 000 M

+3 759 000 M

+3 760 000 M

Road intended ——— not opgr. closed. Vide T/C's Notice d.d. 1977-03-09 File S/8775/6 p. 24 SURVEYOR GENERAL Date 15-3-77

Lettered Erf 26372 Road ——— closed. Vide T/C's Notice d.d. 2013-10-04 60 File S/ 8775/55 V 12 2013-10-23 P.R. Phillips SURVEYOR-GENERAL DATE

——— ERF 19687 1998-03-06 86 8775/103 98.07.22 SURVEYOR-GENERAL DATE

Prescriptive claim ——— ERF 16804 1993-01-25 47 Road intended ——— not opgr. closed. Vide T/C's Notice d.d. 1977-03-09 File S/ 8775/103 1993-08-26 for SURVEYOR-GENERAL DATE

——— Erf 8129 2000-2-25 S/ 8775/25 A Glas 2000-3-23

PRESCRIPTIVE CLAIM ——— ERF 19961 2000-06-09 92 8775/103 A Hunt 2000-07-13

Road intended ——— not opgr. closed. Vide T/C's Notice d.d. 1988-10-12 39 File S/ 8775/103 1988-10-12 for SURVEYOR-GENERAL DATE

St. UVWX 1986-09-19 729 8775/55 30/9/86 SURVEYOR-GENERAL DATE

Fig. letters a b c d e S/8775/56 VI P 115 1990-07-06 53 8775/66 M. Amm 94.7.25 SURVEYOR-GENERAL DATE

For subdivision see General-Plan G.42

For subdivisions see General-Plan G.42a

Niepoths Dale

Geneva Fontein

Dualla

Annex Geneva Fontein

Kat River

TIN

GEORGE TOWNSHIP

HIBERNIA STREET

MARKET STREET

VICTORIA STREET

ADDERLEY STREET

LAING STREET

FICHAT STREET

ALBERT STREET

Railway Station

Oreas St. Road

Rem. Rd.

PETER KOEN'S KRAAI BOSCH

KRAAI BOSCH A

464

1848

1846

1853

1849

1850

7419

1445T

3362

3332

3407

2681

8730

6829

2680

3089

4372

4250

2678

2679

3748

13533

5777

3052

3046

8464

8259

8491

13828

13711

25265

14332

17519

18743

14655

3055

3023

3024

3025

3027

13659

2997

4161

4162

12516

11902

3039

3040

3038

6828

19095

5318

5319

5320

5316

5317

21128

8737

8581

5304

5305

5306

5307

5308

5309

5310

5311

5312

5313

5314

5315

8717

11813

15951

15085

15089

1108

2016

1227

2021

1247

1250

13145

B

S

1:6250

DEDUCTION PLAN NO 2281

SHEET 4

G.37

OF ERF 464 GEORGE

THIS PLAN CONSISTS OF 4 SHEETS

For deductions see portfolio no. 98

SHEET 2 JOINS HERE

SHEET 3 JOINS HERE

+3 761 000 M

+3 762 000 M

+3 763 000 M

+3 764 000 M

+46 000 M

+47 000 M

+48 000 M

+49 000 M

+50 000 M

Kraai Bosch A

Kraai Bosch B

Remainder of Zandkraal

PACALTSDORP COMMONAGE

Road lettered along Bdy. ..K.Y.....
closed Vide Adm. Cert. dd .13:12:1968.
Files S..8775/103.....p..10.....
(Sgd) W. Groenewald .....
Surveyor-General
Date..12.2.1968.....

T/Cs Y W X N Z V
11-10-74
8775/85 41
22/11/1974

abcd
1988-04-15
8775/35 829
88-04-18

SERVITUDE/LEASEHOLD AREAS			
SURVEY RECORD	DIAGRAM NO.	DESCRIPTION	DEED / INITIALED
E1125/44	3204/45	PORTION L5	D/L 6-1946
	7346/1948	PORTION 64	
E 2288/55	10055/56	PORTION L8	D/L 1-1958
E 1828/1957	9834/1957	PORTION L2	D/L 24-1958
E 2367/1972	8858/1972	LEASE AREA	withdrawn
E 1319/1969	9320/1969	LEASE AREA	withdrawn
E 1961/1958	9359/1958	The lines a,b, be represent the western boundaries of Servitude roads 6.30m wide	
E 1759/80	5508/80	Withdrawn.	
E 1544/2003	3389/2003		
E1919/03	4244/2003	The line f,g represents the south western boundary of a Right of Way 6m wide	
499/2009	1428/2009	The line s1, s2, s3, s4 is the northwestern and the line s5, s6, s7 is the western boundary of a 3m wide water pipe line servitude	
4924/2019	7621/2019	The line a,b,c,d,e,f,g represents the centre line of an electric power transmission servitude	

1786/22 3015/22 The figure L40 withdrawn represents a lease area

783/24 1232/24 withdrawn

①	Closure of ptn of street	Erf 13796	T/C's notice dd 8/8775/118 pr 329	WA	82.02.04
②	Closure of ptn of Street	—	T/C's Notice dd 1990-07-06 P 93	LL	90-08-22
③	Closure of ptn of Street	—	T/C's Notice dd. 1989-10-12 8/8775/103 p 38	LL	90-08-22
④	Closure of ptn of Road	ptn of Erf 15085	T/C's Notice dd. 91-02-28 S/8775/35 p 441	LAT	91.03.08
⑤	Closure of ptn of STREET	Erf 16804	T/C's Notice dd. 93-08-27 S/8775/54 p 219	R.A.T	93.09.10
⑥	Closure of ptn of Street	ERF 18298	T/C'S Notice 11 1995-08-03 S/8775/26 p. 157	R.A.T	1995-11-2

ENTRIES IN THESE ENDORSEMENT COLUMNS IS NOT NECESSARY

DEDUCTION PLAN
OF
ERF 464 GEORGE
SITUATE IN THE MUNICIPALITY
& ADMINISTRATIVE DISTRICT
OF GEORGE PROVINCE OF
CAPE OF GOOD HOPE

Vide Dgm. No. B.1293/1920 (Plan 3cc)

D G GEO. Q. 15.15.

Scale 1:6250

Compiled: J. Gillespie, C.Kriel
Checked : 15-8-1973

THE FOLLOWING DEDUCTIONS HAVE BEEN MADE FROM THIS DIAGRAM						
SURVEY RECORD	DIAGRAM NO.	SUBD.	AREA HA/SQ.M	TRANSFER NO.	INITIALED	REMDR.
E1544/2003	3389/2003	ERF 20346				
E 849/2002	1900/2002	ERF 20255	798 m²	88079/2003	WA7	
E 1319/2002	258/2002	ERF 20596	4304 m²	55970/2005	AM	
	SEE	PORTFOLIO	No. 98			
E78/2009	189/2009	ERF 18298	191 m²			

Use portfolio 98

FOR DEDUCTIONS VIDE
PORTFOLIO NO. 98

1:6250

DEDUCTION PLAN NO 2281

G.37

OF ERF 464 GEORGE

SHEET 1

THIS PLAN CONSISTS OF 4 SHEETS

For deductions see portfolio no. 98



OFFICE COPY

SERWITUUTDIAGRAM

	SYE Meter	RIGTINGS-HOEKE		KOORDINATE Y Stelsel: WG23 X	
		Konstante:		0, 00	3700 000, 00
AB	145, 65	304 49 00	A	+ 51 913, 08	+ 60 024, 67
BC	85, 40	86 41 00	B	+ 51 793, 50	+ 60 107, 83
CD	104, 48	356 42 50	C	+ 51 878, 76	+ 60 112, 77
DE	9, 50	115 09 40	D	+ 51 872, 77	+ 60 217, 08
EF	46, 87	109 14 10	E	+ 51 881, 37	+ 60 213, 04
FG	14, 15	154 19 20	F	+ 51 925, 62	+ 60 197, 60
GH	84, 65	199 20 40	G	+ 51 931, 75	+ 60 184, 85
HA	80, 86	173 20 40	H	+ 51 903, 71	+ 60 104, 98
		93P4	⊕	+ 51 007, 78	+ 60 463, 60
		96P4	⊕	+ 51 147, 60	+ 60 680, 77

L. G. No. 1232/2024

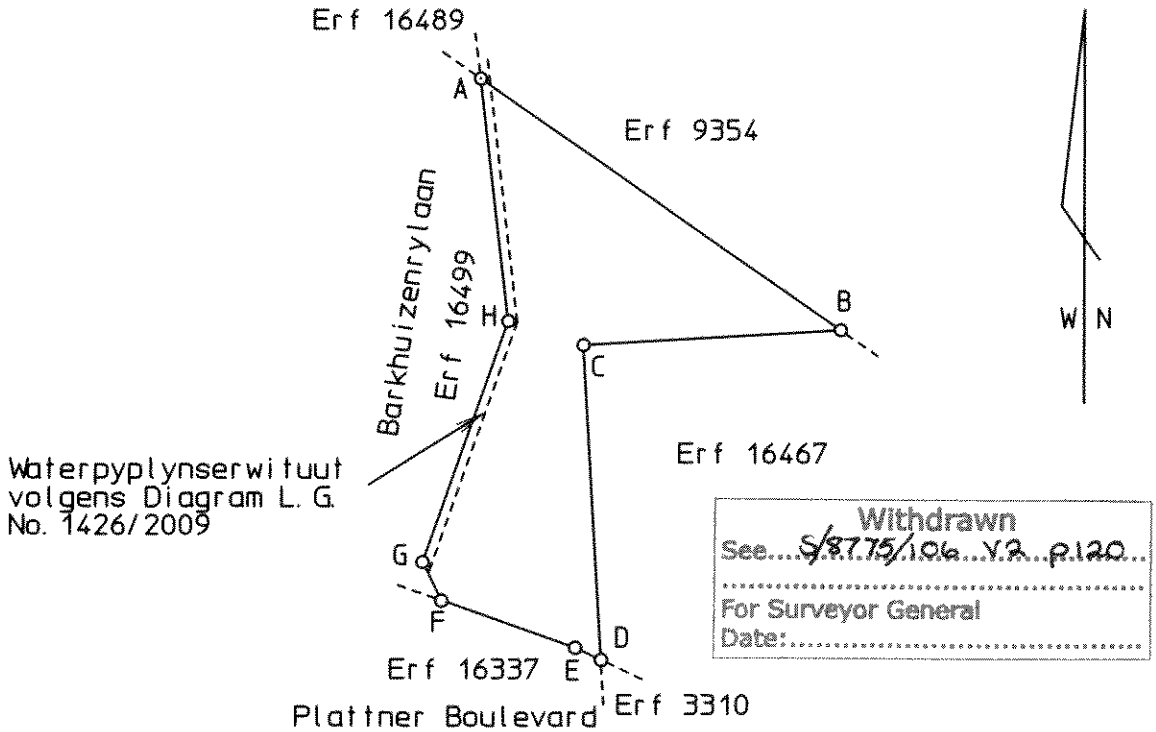
Goedgekeur

nms. LANDMETER-GENERAAL 19.06.2024

Beskrywing van bakens

A, B, C, D, E, F, G, H : 12mm Ysterpen

Skaal 1 : 2 500



Withdrawn
See... S/8775/106...V.2...p.120...
For Surveyor General
Date:

Die figuur A B C D E F G H stel 'n Serwituut vir Parkering groot 9145 vierkante meter oor die Restant van Erf 464 GEORGE gelee in die Munisipaliteit en Administratiewe Distrik George Provinsie Wes Kaap

Opgemeet in Mei 2024 deur my

JD Conradie PLS 0973
Professionele Landmeter

EXEMPT FROM PROVISIONS OF ACT 70 OF 1970
1 (a)
SECTION.....

Exempt i.t.o. Section 24(1)(f)...
of Municipal Land Use Planning Bylaw
Ref: Erf 16467, George
Date: 24 May 2024

Hierdie diagram is geheg aan No. ged. t. g. v. Registrateur van Aktes	Die oorspronklike diagram is No B1293/1920 geheg aan Grondbrief No. Geo. Q. 15-15	Leer No ~~S/8775/119 Vol. 3~~ **S/8775/106 V.2** M.S. 733/2024 Komp. BL-7DD/X32 (1749) Aftekkingsplan: G. 37(2281) LPI C0270002

1:6250

DEDUCTION PLAN NO 2281

SHEET 3

G.37

OF ERF 464 GEORGE

THIS PLAN CONSISTS OF 4 SHEETS

For deductions see porfolio no. 98

SHEET 1 JOINS HERE

GEORGE TOWNSHIP

PACALTSDORP COMMONAGE

Gwayang River

+3 761 000 M

+3 762 000 M

+3 763 000 M

+55 000 M

+54 000 M

+53 000 M

+52 000 M

+51 000 M

SHEET 4 JOINS HERE

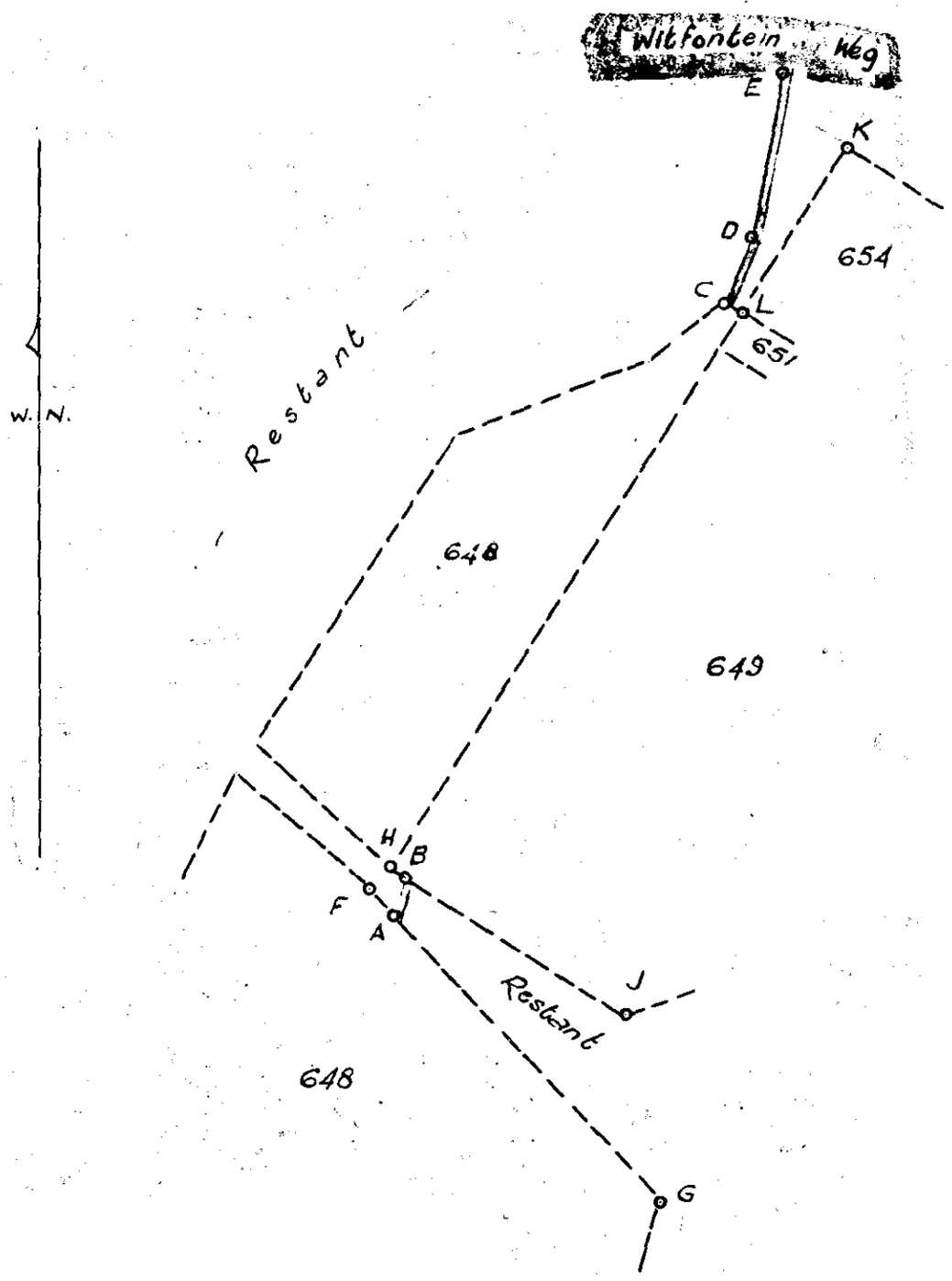
Prescriptive Claim
Road lettered Erf 20287
closed. Notice d.d. 2002-07-04
File: S/8775/136 v1 page: 70
for Surveyor-General 2002/7/22 Date

ERF 20670
closed. Notice d.d. 2003-04-04
File No. 8775/119 Vol 3 552
P.G. SURVEYOR GENERAL 2003-05-21 DATE

ERF 29847
closed. Notice d.d. 2024-03-14
File No. 8775/136 V.1 P78
P.G. SURVEYOR GENERAL 2024-08-05 DATE

SERWITUUT-KAART
SERVITUDE DIAGRAM

KANTOORAFSKRIF
OFFICE COPY



Sye Kaapse Voet		Rigtingshoeke		Koördinate y		L° 23 x	
		Konstante		+ 160000·00		+ 11930000·00	
AB	95·12	189·12·30	A	+ 2706·87		+ 8260·69	
			B	+ 2691·65		+ 8166·80	
FA	83·48	317·47·40	F	+ 2762·95		+ 8198·85	
GA	895·33	137·47·40	G	+ 2105·39		+ 8923·90	
HB	37·40	302·48·20	H	+ 2723·09		+ 8146·54	
JB	598·44	122·48·20	J	+ 2188·66		+ 8491·03	
CD	161·33	203·32·10	C	+ 1958·15		+ 6867·87	
DE	382·80	191·0·50	D	+ 1893·73		+ 6719·96	
EK	225·48	319·28·0	E	+ 1820·60		+ 6344·21	
KL	450·13	32·45·50	K	+ 1674·06		+ 6515·58	
LC	48·25	122·55·30	L	+ 1917·65		+ 6894·10	

L.G.Nr. 8353/58

Goedgekeur
P.L. van der Kemel
Landmeter-generaal
18·12·1958.

Bakens:-

A.B.D & E, ijsbe penne 18" lang en 1/2" deursnit.
C, ijsbe pen 2 voet lang en 1¼" do .
F, ingeplante Klip wat 4" uitsteek.
G, do do 12" do .
H, do ongeveer 4" onder die grond.
J & K, beton block 6" × 6" wat 6" uitsteek.
L, ingeplante Klip do 12"

Skaal : 1/5000

Die bruin lyne AB. CD en DE stel voor die Westelike kante van Serwituut Paaie, 20 Kaapse voet wyd, oor Erf 464 George, vanaf grens FG tot grens HJ, en vanaf grens CL tot Witfontein Weg.

Gelee in die Munisipaliteit en Afdeling George, Provinsie Kaap die Goeie Hoop.

Opgemeet in Sept. 1958 deur my J. Pascual Landmeter

Hierdie Kaart is gehegt aan Akte van Serwituut Nr. gedateer ten gunste van Registrateur van Aktes.	Die oorspronklike kaart is Nr 1293/1920 gehegt aan Grondbrief Geo Q. 15·15 (3 cc)	Lêer S/87,75/119 M.S. E 1949/58. BL-700/W5 Afdruk Plan G.37 Servitude

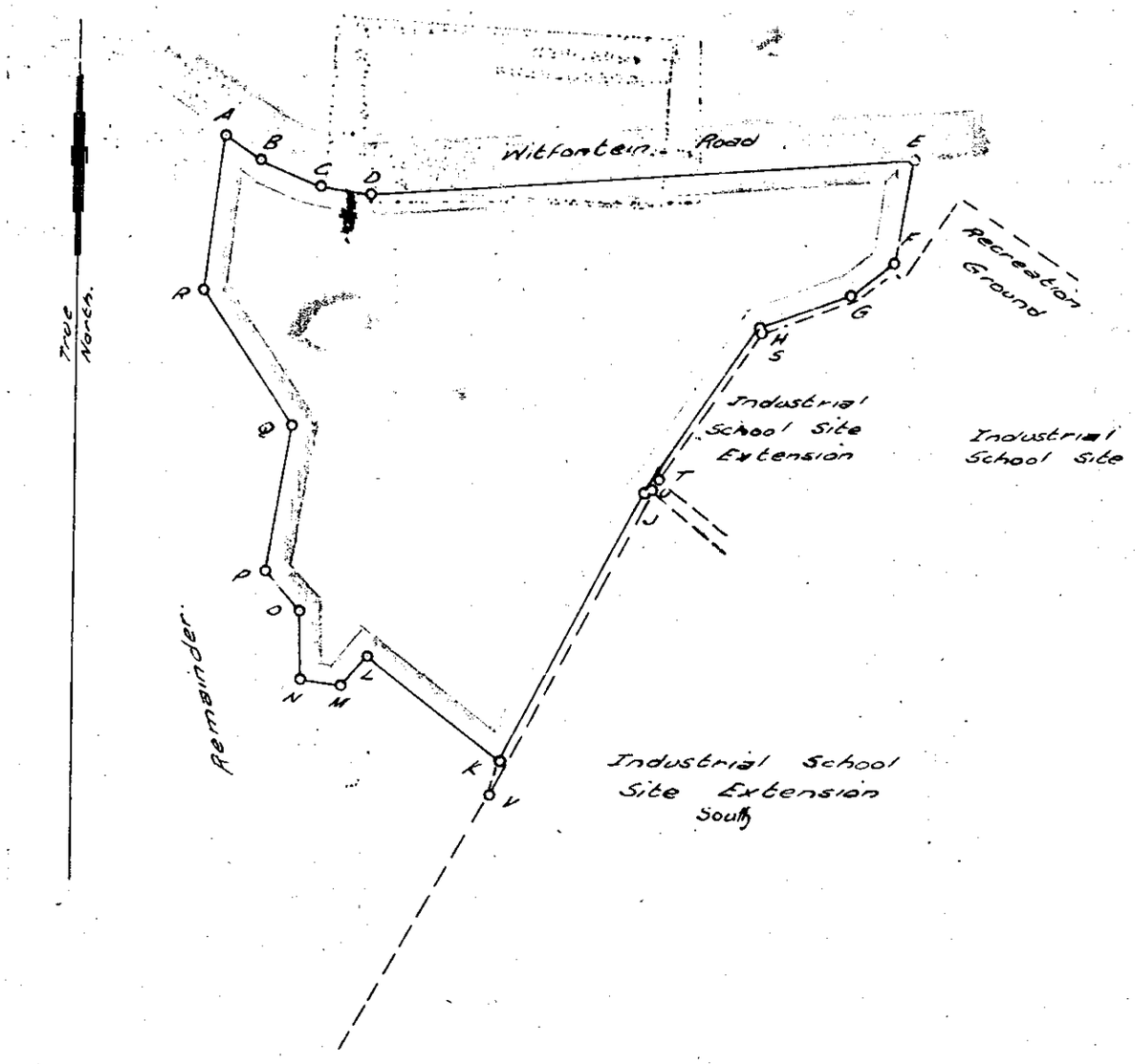
~~SUB-DIVISIONAL DIAGRAM,~~
~~Sect. 24 (b), Act No. 9 of 1927.~~

LEASEHOLD DIAGRAM

OFFICE COPY

7346/48

S.G. No.



SIDES Cape Feet		ANGLES OF DIRECTION	SYSTEM Lo 23° CO-ORDINATES y		x	
		Constant	to	be added	+11900000·0	
AB	208·3	303° 42' 50"	A	+165124·8	+36260·3	14
BC	308·8	291. 24. 20	B	+164951·1	+36376·2	15
CD	234·8	280. 53. 50	C	+164663·6	+36488·9	16
DE	2594·0	265. 48. 20	D	+164433·0	+36533·3	17
EF	496·9	11. 16. 10	E	+161845·9	+36343·6	1
FG	250·8	52. 23. 10	F	+161943·0	+36830·9	2
GH	460·3	68. 55. 30	G	+162141·7	+36984·0	3
HJ	949·2	34. 33. 30	H	+162571·2	+37149·5	4
JK	1443·4	26. 59. 50	J	+163109·6	+37931·2	5
KL	807·2	127. 22. 10	K	+163764·8	+39217·3	6
LM	179·7	44. 9. 50	L	+164406·3	+38727·4	7
MN	186·5	94. 51. 40	M	+164531·5	+38856·3	8
NO	313·5	178. 28. 30	N	+164717·3	+38840·5	9
OP	242·1	141. 22. 20	O	+164725·8	+38591·1	10
PQ	710·5	183. 2. 10	P	+164876·7	+38331·8	11
QR	764·2	195. 41. 10	Q	+164777·9	+37628·2	12
RA	741·5	186. 29. 50	R	+165208·7	+36997·0	13
HS	18·4	328. 49. 20				
ST	851·5	84. 4. 20	S	+165561·7	+37165·2	27
TU	64·9	34. 19. 40	T	+163038·7	+37870·5	26
UV	1635·4	26. 54. 50	U	+163075·3	+37924·1	31
VK	~~167·9~~ 172·7	~~90. 24. 0~~ 197 6 10	V	+163815·6	+39382·4	4

Approved

Edmund E. Smith
for Surveyor-General.
3 NOV 1948

1000 0 1000 2000 3000 Cape Feet.

Scale 1/10 000

S.U & V, planted stones projecting 2 ft
T, planted stone projecting 10"
All other beacons are pieces of iron fencing standard 3ft. long

The figure ABCDEFGHJKLMNOPQR

represents 61.0097 Morgen. of land being

Portion 64 (called George Golf Course)
of Part F of the George Town Commonage

situate in the Municipality and Division of George Province of Cape of Good Hope.

Surveyed in June 1948 by me for Lease Purposes

T. J. Hammond
Land Surveyor.

This diagram is annexed to

Registrar of Deeds.

The original diagram is No. 1293, 1920 annexed to D/S Geo. & ... 15. 15

S.G. File No. S 8775/15
S.R. No. E. 1730/48
Geo. Tshp. Shts 1+7.
Outline Plan G. 37.
Fig. No. 127
BLDD/1/2 C.S.P.C.T.

HUURKONTRAK-KAART
LEASEHOLD DIAGRAM

KANTOORAFSKRIF
OFFICE COPY

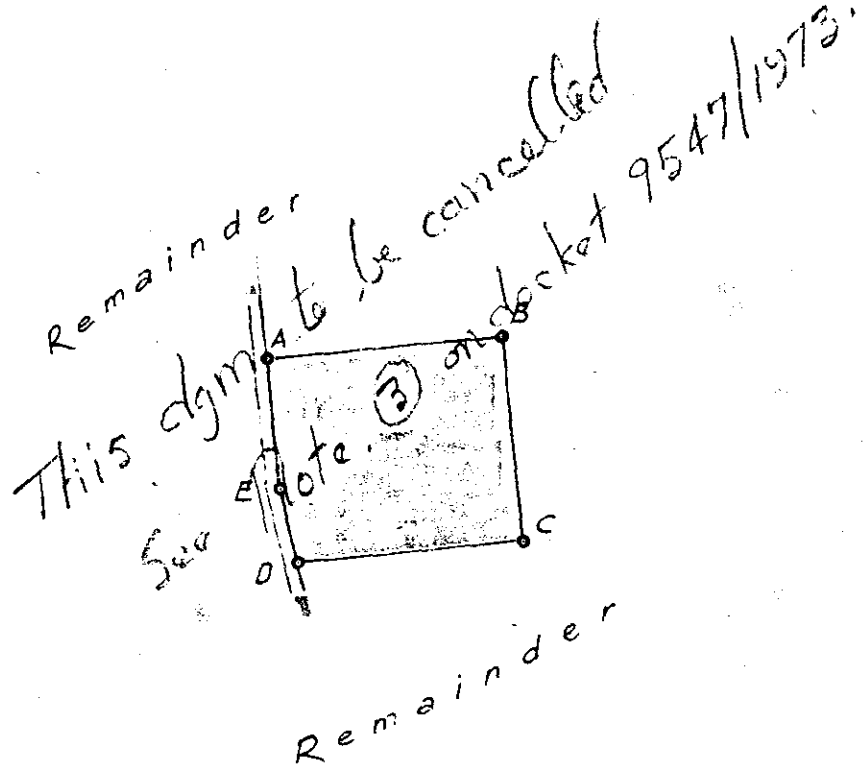
9834/57

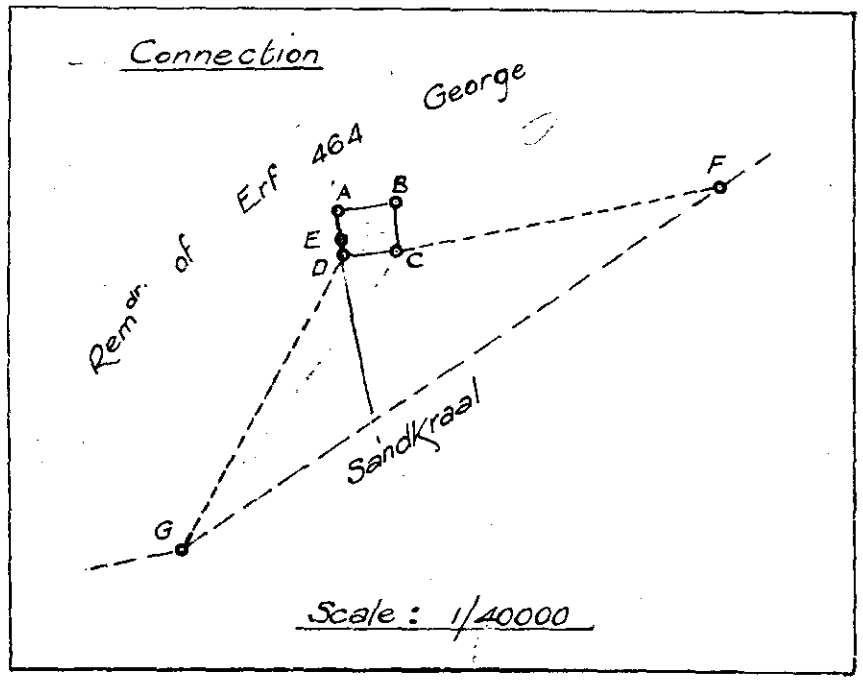
S.G. No.

	SIDES Cape Feet		ANGLES OF DIRECTION		SYSTEM L° 25° CO-ORDINATES y	x
			Constant			+ 11900000·00
Ts	AB	1000·10	265 · 4 · 50	A	+ 154877·35	+ 45807·82
Spoor Pad	BC	869·47	355 · 4 · 50	B	+ 153880·93	+ 45722·06
	CD	965·22	85 · 4 · 50	C	+ 153806·37	+ 46538·53
Pad	DE	320·69	168 · 50 · 10	D	+ 154768·03	+ 46671·09
Tc	EA	550·68	175 · 4 · 50	E	+ 154830·12	+ 46356·47
	CF	5562·15	258 · 11 · 30			
Pg	FG	10968·57	56 · 8 · 47	F	+ 148361·90	+ 45450·20
Pg	GD	5586·76	208 · 56 · 0	G	+ 157470·90	+ 51560·50

Approved

Surveyor-General.
30-10-1957





Beacons :-

A.B.C. D & E, iron pegs 3 ft. long & 1" dia. proj. 6".
F, planted stone 15"x8" proj. 15".
G, concrete block proj. 18";
truncated pyramid, top 14·5 x 14·5.-

Scale 1 : 10000

The figure A B C D E

represents 10·0000 Morgen of land being :

Portion L 2 portion of Erf 464 George

Situate in the Municipality and Division of GEORGE. Province of Cape of Good Hope.

Surveyed in March 1957 by me

Land Surveyor.

This diagram is annexed to

Registrar of Deeds.

The original diagram is No. 1923, 1920 annexed to D./G. Geo. Q. 15. 15. (G.P. G 37)

S. G. File No. S 8775/55
S. R. No. E. 1828/57

BL-7DD.
GP-G37
BL·7DD/Y5
BL·7DD/Y4

Servitude

Model, C.T.

HUURKONTRAK-KAART
LEASEHOLD DIAGRAM

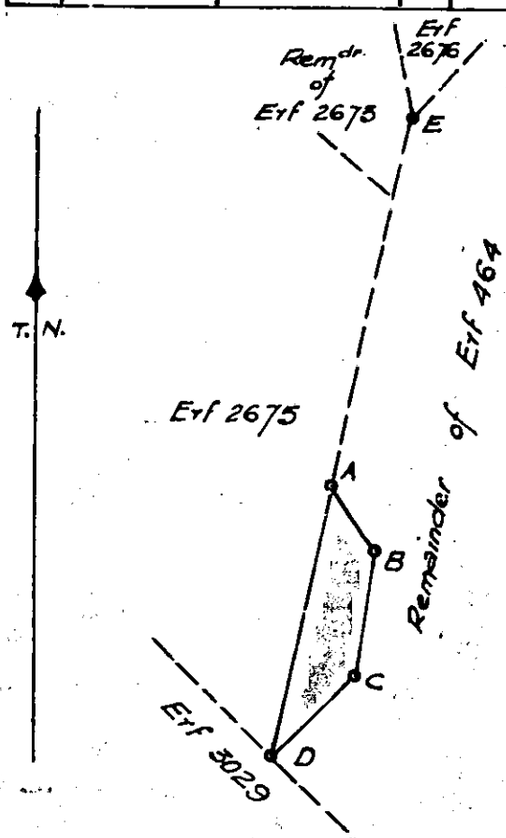
OFFICE COPY

	SIDES Cape Feet	ANGLES OF DIRECTION		SYSTEM L° 25° CO-ORDINATES y	x
	84·78	Constants		+1550000·00	+11940000·00
AB	269·27	326·49·40	A	+ 34·44	+ 1892·39
BC	119·84 / 119·94	8·58·10	B	+ 194·41	+ 2117·78
CD	380·95	47·57·50	C	+ 258·32	+ 2524·58
DA	236·76 / 910·77	192·34·40	D	+ 539·77	+ 2781·30
EA	1281·24	12·34·40	E	+ 73·33	+ 690·70

S. G. No. 10055/56

Approved

Surveyor-General.
30-1-1957



Beacons :-
A. B & C, iron pegs 18" long & 5/8" dia.
D & E, rail sections.

Scale 1: 7500

The figure A B C D

represents 1·5838 Morgen of land being

Portion L 8 portion of Erf 464 George

Situate in the Municipality and Division of George Province of Cape of Good Hope.

Surveyed in Nov^r. 1956 by me

Land Surveyor.

This diagram is annexed to D/L. 1/1958

Registrar of Deeds.

The original diagram is No. 1293, 1920 annexed to O/G. Geo. Q. 15-15.

DEDUCTION PLAN G. 35
AFTREKPLAN

S.G. File No. 8775/119
S.R. No. E. 2288/56
BL. 7DD/X. 42+44

Annexure 3:
OWNERSHIP PRINTOUT

WinDeed Database D/O Property

GEORGE, 464, 0, CAPE TOWN

Lexis® WinDeed

Any personal information obtained from this search will only be used as per the Terms and Conditions agreed to and in accordance with applicable data protection laws including the Protection of Personal Information Act, 2013 (POPI), and shall not be used for marketing purposes.

SEARCH CRITERIA			
Search Date	2025/05/06 14:26	Erf Number	464
Reference	-	Portion Number	-
Report Print Date	2025/05/06 14:26	Deeds Office	Cape Town
Township	GEORGE	Search Source	WinDeed Database

PROPERTY INFORMATION			
Property Type	ERF	Diagram Deed Number	GEQ15-15/1922
Township	GEORGE	Local Authority	GEORGE MUN
Erf Number	464	Province	WESTERN CAPE
Portion Number	0	Extent	8000000 DUM
Registration Division	NOT AVAILABLE	LPI Code	C02700020000046400000
Previous Description	(*3789M273R113F)		

OWNER INFORMATION (2)			
MUN GEORGE			Owner 1 of 2
Company Type	LOCAL AUTHORITY	Document	GEQ15-15/1922
Registration Number	-	Microfilm / Scanned Date	-
Name	MUN GEORGE	Purchase Price (R)	SECT 16
Multiple Owners	NO	Purchase Date	-
Multiple Properties	NO	Registration Date	1922/06/15
Share (%)	-		
MUN GEORGE			Owner 2 of 2
Company Type	LOCAL AUTHORITY	Document	T39662/2001
Registration Number	-	Microfilm / Scanned Date	2001 0374 2688
Name	MUN GEORGE	Purchase Price (R)	-
Multiple Owners	NO	Purchase Date	-
Multiple Properties	NO	Registration Date	-
Share (%)	-		

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ENDORSEMENTS (79)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	I-1338/982I-GE-QTS-1	5-15/6/922	-	-
2	VA1142/1983-GE QTS 1	5-15/922	-	-
3	I-11210/2004LG	-	-	20180928 11:30:40
4	P/S-LETT-AF-37/1/122	-T/S-FILE	-	-
5	P/S-LETT-AF-37/1/125	-T/S-FILE	-	-
6	P/S-LETT-AF-37/1/146	-T/S-FILE	-	-
7	P/S-LETT-AF-37/1/71-	T/S-FILE	-	-
8	P/S-LETT-AF-37/1/79-	T/S-FILE	-	-
9	VA5496/2010	MUN GEORGE	-	20101109 15:26:29
10	NOW SUBDIVISION	TOWN GEORGE ,ERF 21128 ,PRTN 0	-	-
11	NOW SUBDIVISION	TOWN GEORGE ,ERF 20596 ,PRTN 0	-	-
12	NOW SUBDIVISION	TOWN GEORGE ,ERF 20679 ,PRTN 0	-	-
13	NOW SUBDIVISION	TOWN GEORGE ,ERF 23803 ,PRTN 0	-	-
14	NOW SUBDIVISION	TOWN GEORGE ,ERF 22485 ,PRTN 0	-	-
15	NOW SUBDIVISION	TOWN GEORGE ,ERF 20848 ,PRTN 0	-	-
16	NOW SUBDIVISION	TOWN GEORGE ,ERF 24800 ,PRTN 0	-	-
17	NOW SUBDIVISION	TOWN GEORGE ,ERF 24887 ,PRTN 0	-	-
18	NOW SUBDIVISION	TOWN GEORGE ,ERF 12842 ,PRTN 0	-	-
19	NOW SUBDIVISION	TOWN GEORGE ,ERF 19675 ,PRTN 0	-	-
20	NOW SUBDIVISION	TOWN GEORGE ,ERF 19541 ,PRTN 0	-	-
21	NOW SUBDIVISION	TOWN GEORGE ,ERF 20173 ,PRTN 0	-	-
22	NOW SUBDIVISION	TOWN GEORGE ,ERF 19921 ,PRTN 0	-	-
23	NOW SUBDIVISION	TOWN GEORGE ,ERF 19687 ,PRTN 0	-	-
24	NOW SUBDIVISION	TOWN GEORGE ,ERF 19887 ,PRTN 0	-	-
25	NOW SUBDIVISION	TOWN GEORGE ,ERF 19948 ,PRTN 0	-	-
26	NOW SUBDIVISION	TOWN GEORGE ,ERF 20264 ,PRTN 0	-	-
27	NOW SUBDIVISION	TOWN GEORGE ,ERF	-	-

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ENDORSEMENTS (79)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
		19526 ,PRTN 0		
28	NOW SUBDIVISION	TOWN GEORGE ,ERF 19961 ,PRTN 0	-	-
29	NOW SUBDIVISION	TOWN GEORGE ,ERF 13865 ,PRTN 0	-	-
30	NOW SUBDIVISION	TOWN GEORGE ,ERF 19529 ,PRTN 0	-	-
31	NOW SUBDIVISION	TOWN GEORGE ,ERF 17141 ,PRTN 0	-	-
32	NOW SUBDIVISION	TOWN GEORGE ,ERF 19524 ,PRTN 0	-	-
33	NOW SUBDIVISION	TOWN GEORGE ,ERF 19523 ,PRTN 0	-	-
34	NOW SUBDIVISION	TOWN GEORGE ,ERF 19525 ,PRTN 0	-	-
35	NOW SUBDIVISION	TOWN GEORGE ,ERF 19528 ,PRTN 0	-	-
36	NOW SUBDIVISION	TOWN GEORGE ,ERF 19527 ,PRTN 0	-	-
37	NOW SUBDIVISION	TOWN GEORGE ,ERF 20255 ,PRTN 0	-	-
38	NOW SUBDIVISION	TOWN GEORGE ,ERF 21710 ,PRTN 0	-	-
39	NOW SUBDIVISION	TOWN GEORGE ,ERF 20849 ,PRTN 0	-	-
40	NOW SUBDIVISION	TOWN GEORGE ,ERF 20850 ,PRTN 0	-	-
41	NOW SUBDIVISION	TOWN GEORGE ,ERF 20954 ,PRTN 0	-	-
42	NOW SUBDIVISION	TOWN GEORGE ,ERF 20670 ,PRTN 0	-	-
43	NOW SUBDIVISION	TOWN GEORGE ,ERF 20287 ,PRTN 0	-	-
44	NOW SUBDIVISION	TOWN GEORGE ,ERF 13959 ,PRTN 0	-	-
45	NOW SUBDIVISION	TOWN GEORGE ,ERF 8129 ,PRTN 0	-	-
46	NOW SUBDIVISION	TOWN GEORGE ,ERF 22919 ,PRTN 0	-	-
47	NOW SUBDIVISION	TOWN GEORGE ,ERF 22933 ,PRTN 0	-	-
48	NOW SUBDIVISION	TOWN GEORGE ,ERF 24899 ,PRTN 0	-	-
49	NOW SUBDIVISION	TOWN GEORGE ,ERF 20894 ,PRTN 0	-	-
50	NOW SUBDIVISION	TOWN GEORGE ,ERF	-	-

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ENDORSEMENTS (79)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
		18743 ,PRTN 0		
51	NOW SUBDIVISION	TOWN GEORGE ,ERF 22241 ,PRTN 0	-	-
52	NOW SUBDIVISION	TOWN GEORGE ,ERF 24829 ,PRTN 0	-	-
53	NOW SUBDIVISION	TOWN GEORGE ,ERF 25334 ,PRTN 0	-	-
54	NOW SUBDIVISION	TOWN GEORGE ,ERF 25103 ,PRTN 0	-	-
55	NOW SUBDIVISION	TOWN GEORGE ,ERF 20278 ,PRTN 0	-	-
56	NOW SUBDIVISION	TOWN GEORGE ,ERF 25312 ,PRTN 0	-	-
57	NOW SUBDIVISION	TOWN GEORGE ,ERF 15073 ,PRTN 0	-	-
58	NOW SUBDIVISION	TOWN GEORGE ,ERF 20919 ,PRTN 0	-	-
59	NOW SUBDIVISION	TOWN GEORGE ,ERF 25823 ,PRTN 0	-	-
60	NOW SUBDIVISION	TOWN GEORGE ,ERF 25798 ,PRTN 0	-	-
61	NOW SUBDIVISION	TOWN GEORGE ,ERF 26372 ,PRTN 0	-	-
62	NOW SUBDIVISION	TOWN GEORGE ,ERF 26209 ,PRTN 0	-	-
63	NOW SUBDIVISION	TOWN GEORGE ,ERF 25782 ,PRTN 0	-	-
64	NOW SUBDIVISION	TOWN GEORGE ,ERF 15884 ,PRTN 0	-	-
65	NOW SUBDIVISION	TOWN GEORGE ,ERF 27836 ,PRTN 0	-	-
66	NOW SUBDIVISION	TOWN GEORGE ,ERF 28572 ,PRTN 0	-	-
67	NOW SUBDIVISION	TOWN GEORGE ,ERF 28415 ,PRTN 0	-	-
68	NOW SUBDIVISION	TOWN GEORGE ,ERF 26959 ,PRTN 0	-	-
69	NOW SUBDIVISION	TOWN GEORGE ,ERF 9061 ,PRTN 0	-	-
70	NOW SUBDIVISION	TOWN GEORGE ,ERF 9062 ,PRTN 0	-	-
71	NOW SUBDIVISION	TOWN GEORGE ,ERF 9063 ,PRTN 0	-	-
72	NOW SUBDIVISION	TOWN GEORGE ,ERF 29825 ,PRTN 0	-	-
73	NOW SUBDIVISION	TOWN GEORGE ,ERF	-	-

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ENDORSEMENTS (79)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
		29925 ,PRTN 0		
74	NOW SUBDIVISION	TOWN GEORGE ,ERF 29849 ,PRTN 0	-	-
75	NOW SUBDIVISION	TOWN GEORGE ,ERF 29847 ,PRTN 0	-	-
76	K279/2022L	GEORGE BOWLING CLUB	-	20220504 04:24:51
77	VA-T15715/1986-PEND REG BOX 79	02/11/2022	-	-
78	I-977/2024LG	-	-	-
79	I-1514/2024LG	-	-	-

HISTORIC DOCUMENTS (13)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	I-2556/94-I-GEQ15-15	/922	-	-
2	I-2556/94-I-GEQ15-15	/	-	-
3	I-4037/1987LG	-	-	-
4	I-4325/1984-I-GE QTS	15-15/1922	-	-
5	I-4325/1984-I-GE QTS	15-15/1922	-	-
6	I-4796/1984-I-GE-QTS	-	-	-
7	I-4798/1984-I-GE-QTS	-15-15/1922	-	-
8	I-6993/1990LG	-	-	20211110 10:26:01
9	T76194/1991	CHURCH OF PROV OF SOUTHERN AFRI NIL	-	1991 2033 1812
10	T76194/1991	CHURCH OF PROV OF SOUTHERN AFRI	-	1991 2033 1812
11	T76194/1991	DIOCESE OF GEORGE	-	1991 2033 1812
12	I57/1947LG	-	-	-
13	I945/1952LG	-	-	-

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Annexure 4:
DEED OF TRANSFER

(Book Index 15-6-22)

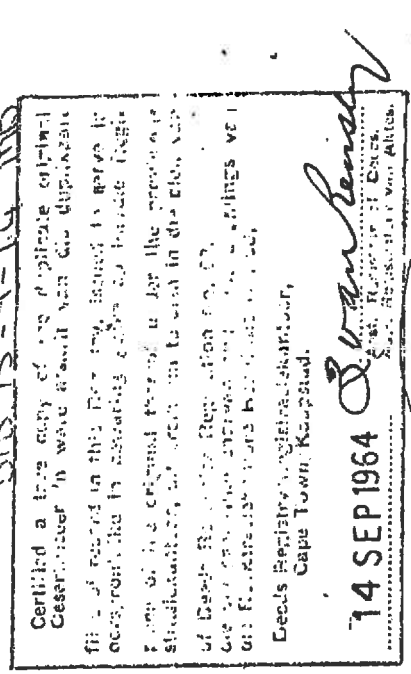
George Quitrents Vol. 15 No. 15

11/15 Original Plan of Lots [illegible] as Surveyed by Plan 14 in Crawford's Plan 16 on Book 1 Map 3 Parts Hic

XEROX COPY ONLY

420

CROWN GRANT







CROWN GRANT

Grant under Section 10,
Act No. 15, 1887.

IN THE NAME AND ON BEHALF OF HIS MAJESTY GEORGE THE FIFTH, BY THE GRACE OF GOD OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND, AND OF THE BRITISH DOMINIONS BEYOND THE SEAS KING, DEFENDER OF THE FAITH, EMPEROR OF INDIA:

WHEREAS under and by virtue of the provisions contained in Section 10 of the Act No. 15 of 1887 of the Cape of Good Hope, entitled an "Act for regulating the manner in which the Crown Lands of the Colony shall be disposed of", grants or reserves of Crown Lands within the limits of a Municipality may be made by the Governor-General for the benefit of the inhabitants of the Municipality:

AND WHEREAS the grant in favour of the COUNCIL OF THE MUNICIPALITY OF GEORGE of a certain piece of land situate in the DIVISION OF GEORGE, Province of the Cape of Good Hope, has been duly authorised:

NOW, THEREFORE, THESE PRESENTS WITNESS that there is here-

TY OF GEORGE the said piece of land named THE GEORGE TOWN COMMONAGE, measuring Three thousand Seven hundred and eighty-nine morgen two hundred and thirteen square roods, one hundred and thirteen square feet (3789 Mor: 213 Sq. Rds: 113 Sq.Ft) situated as aforesaid and represented and described in the diagram hereunto annexed, framed by Surveyor R.E. Dumbleton, dated August, 1919, with full power and authority henceforth to possess the same in perpetuity, subject to the following conditions:-

(1) That the Governor-General shall have the right at all times of taking such portions of the land so granted as may be needed for public purposes only (which shall not include land required for Forestry purposes) without paying compensation, provided, however, that in the event of any land being required for such public purposes on which improvements shall have been effected, then, in that case payment of compensation shall be made for such land in such sum of money as may be mutually agreed upon by the parties concerned, or failing such agreement, as may be awarded by three appraisers, one to be appointed by each side, and a third to be chosen by the two others before proceeding to act, or any two of them shall award:

(2) That all existing roads and thoroughfares shall remain free and uninterrupted, and that the Government or other competent authority shall have the right when necessary at any time to make further roads over the land in question:

(3) That all rights to minerals, mineral products, mineral oils, and precious stones, precious or base metals on or under the land hereby granted are expressly reserved to the Crown, together with the right of access to any mines or works undertaken for mining or prospecting purposes by any person duly authorised in that behalf. The land is subject to such further rights as the public or the Government now may or may hereafter have or be entitled to obtain under or by virtue of any law relating to the prospecting, digging, mining, or exploitation of minerals, mineral products, mineral oils, precious stones, precious or base metals on or under the land hereby granted, which rights shall not be impaired or in any way affected by the title-deed.

connection with the establishment and maintenance of a rifle range, including the right of building and maintaining the necessary butts, fire points, excavations, shelters, sheds, huts, and other structures, of effecting and maintaining the necessary clearings upon the said range, and of fencing such parts of range as may be necessary, provided that the whole area to be fenced shall not exceed 100 by 150 yards:

(5) In the event of the Municipality undertaking planting operations on the Commonage, a clear space of ground, in no part less than 50 yards in width must always be left between the boundary of any Government Forests or Plantations and the external rows of trees of the Municipal Plantations in order that such clearing and burning of vegetation may be carried out as may be considered necessary for the protection of the Government Forests or Plantations and the Government shall have the right, free of compensation, to carry out such clearing and burning operations as may be considered necessary:

The Government shall further have the right, free of compensation, to make such roads on the commonage as may be reasonably necessary for the working of any Crown Forests or Railway Plantations as adjoin the commonage, provided that the location of such roads shall be determined by full agreement between both parties and failing such agreement by arbitration in manner as provided for in Clause 1 of the conditions annexed to this Deed of Grant. All such roads to be maintained by the Government, and the public of George to have the right to the reasonable use of such roads:

THUS DONE and signed by the Secretary for Lands at CAPE TOWN on the 15th day of June 1922, duly authorised thereto in that behalf by the Governor-General, in terms of the Crown Land Disposal (Execution of Deeds) Act, 1911.

J. Somerville

SECRETARY FOR LANDS.

IN TERMS of the Executive Council Minute No. 77 of the 11th January 1939, and filed as No. 3/1939 the Condition lettered (1) appearing herein, has been cancelled and the following

"That the Governor-General shall have the right at all times of resuming for public purposes (which shall not include land required for Forestry purposes), such portion or portions of the land hereby granted as may not have been alienated by the Town Council.

In the event of resumption as aforesaid no compensation shall be payable by the Government except in respect of substantial improvements of a permanent nature erected or made on the land resumed whether by the Town Council or by any other person or body acting under the express authority of the said Council"

substituted therefor.

Deeds Registry
CAPE TOWN
9 MAR 1939

W.R. Bezuidenhout
for REGISTRAR OF DEEDS.

further endorsements see ..... Page 5.

to M.H. Fotheringham

528 Sq.rds. 5 Sq.ft. Transf.i. 17.6.1925 No 5113
to L.J.E. van Reenen

...ht of resumption waived in respect of
...5 portions of Town Commonage viz:
...pieces at Rosemoot = approximately 1 morgen
...of land called "the George Show Grounds"
...of land south west of & adjoining the
...Dept. Saw Mill Site, South-east of
...Town, approximately 1½ morgen
...Ex. Co. minute No C 5957/2 dd. 27.9.26. (D.S.)
(Sgd.) ? 1/10/26

...min. 3136 of 20.9.28. amplified by addition
...in alia, - two of such portions being described
...DRC' plan of part E of the George Town
...onage in extent 1 morgen, and the Roman
...Church Mission School Side plan of plan E
...eorge Town Commonage in extent 1 mor. 1.35 Sq.ft.
...Ex. Co. min. 2918 dd. 28.9.29. (D.S.)

...t of Resumption waived in respect of
...nd D.S. situate North and South of the
...line and adjoining Nieuwoudtville
...of the Commonage. Vide Copy Ex. Co.
No. 1061 dd. 7.4.1925 forwarded by Lands Dept.
...No C. 5957/3 dated 2 May 1925. from D.S.
(Sgd) B.L.
24/7/25

For further endorsements see Page 6

of Land measuring 5 morgen approx., plan of the George Town Commonage. Vide Ex. Co. min. 4020 dd. 22/11/27 Lands. min. C 5957/2 dd. 10.1.1927 (D.S.)

Lot 88 = 5 morgen 362 Sq rds 85 Sq ft.
TRANSFERRED 5.3.1928 (No 1999)
to the Governor General's Fund Reserve.

Lot 90 = 276 Sq rds 15 Sq ft.
TRANSFERRED 24.10.1927 No 10594
to J.A. [illegible]

Lot 91 = 420 Sq rds 40 Sq ft.
TRANSFERRED 24.10.1927 No 10595
to A.E. Davis.

Lot 92 = 315 Sq rds 129 Sq ft.
TRANSFERRED 24.10.1927. No 10596
to Jas C. Dreyer

Lot 93 = 2 Mgn. 538 Sq rds 120 Sq ft.
TRANSFERRED 24.10.1927. No 10597
to A. Coote, Widow

Lot 89 = 4 Mgn. 521 Sq rds 105 Sq ft.
TRANSFERRED 5.12.1927. No 12208
to J.J. Stander

LOT Railway Triangle, EXTENSION No 2. = 24 Sq rds 133 Sq ft.
LOT Railway Station Extensions = 1 mgn 444 Sq rds 127 Sq ft.
TRANSFERRED 13.8.1929. No 5026 to
the Govt. of the Union of South Africa in
its Railways & Harbours Administration.

of (a) Ex. Co. Min. 275/1932
No 1 herein has been waived in so far as an approximately 6 morgen adjoining the Roman Church Mission school site Extension as per plan sketch with Ex Co. min. 275 dd. 9. 2. 1932.
Ex. Co. Minute No 276/1932 as before, in so morgen adjoining Railway Property as appears sketch with Ex Co. Min. No 276 dd 9.2.1932
D.S. 1932. (Syd). Registrar of Deeds.

resumption waived in respect of Lot 18.
ge: Vide Ex. Co. min. 2353 dd 2. 9. 1930
min filed D.8./1930.

resumption waived in respect of a certain
of the land hereby granted (approximately
yards) adjoining Lot. No 18 Kenridge.
Ex Co Min. 2709 dd. 16.10.1931. with plan
attached. filed D 8/1931 sgd Reg of Deeds

Residence Site
1932 Rds 95 sq.
FERRED 5-5-1930 to Government of Union of South Africa.
No 3679

Plan of Part D.
625 sq. feet.
ERRED 3.10.1930 to Mrs. A. Francis, Widow.
No 8309

18 Sq Rds 115 Sq. ft.
ERRED 8-10-1930 to J. John Cunderson
No 8398

plot = 12 morg. 1694 sq. ft.
ERRED 5-12-1930 to Govt. of Union of
No 10-13 South Africa (Railways)

LOT. B of part D = 14753. Sq ft.
TRANSFERRED 16.7.1931 to Govt. of the Union of South Africa
No 5200. Railways & Harbours Adm.

LOT. 1 EDA of Part E
= 1 morgen 4236 Sq ft.
TRANSFERRED 7.8.1931 to R. M. Eda.
No 5752

LOT. 181 of Part A
= 4344 93 Sq feet
TRANSFERRED 18.4.1932 to J. T. Bolger.
No 2220.

Lot. P.H No 2 of Part E
= 1.0271 morgen.
TRANSFERRED 18.6.1934 to the Boksburg
No 5045. Lodges Plantations Ltd.

A Certificate of Registered Title has,
in accordance with Section....., Act of 19
been substituted for this Deed in respect of.....
George Industrial Township
= 29.9925 morgen. dd 7/1932 No 246

Portion RY 2 of Plan E.
= 5.9810 morgen.

TRANSFERRED
GETRANSPORTEER

to the Government of the Union of South Africa as Railways & Harbours Administration

Ptn. 58 = 1.0701 morgen

TRANSFERRED

25.8.1948 to G. McEwan MOCP.
No 19400.

hereof 3/2/1949 a.f. and H.E. Werth
1417. to Joint Est. a.f. (bw. de Kock)
Leda of Part E
Sq feet.
FERRED 26.9.1954 to R A St Leger
No 8459.

LEASED TO ~~the~~ Joint Council of
Europeans and Africans.
FOR 15 years by Deed of Lease
dated 6-3-1946 filed as
Lease No 6/1946 Registered
this 26th day of July 1946
Deeds Registry (Sgd) KALLMAN
Cape Town for ASST REGISTRAR

Portion 62 of Part E 145 SR 88 ST.
LEASED TO the Kerkraad of the
Dutch Reformed mission Church
FOR 15 years BY DEED OF
LEASE DATED 5-
FILED AS Lease 4/48
REGISTERED THIS third DAY OF
September 1948.
Deeds Registry (Sgd) R LOUBSER
Cape Town for ASST. REGISTRAR.

Lot 8 Extension IV. Ptn of Part F = 1.3748 Morgen
TRANSFERRED 19.4.1937 to H.G. (No 3776) Came in

Roman Catholic Church
Mission School Site No 2 = 1.0286 morgen
TRANSFERRED 4.5.1937 (No 4[illegible])
to Prefect Apostolic Central Districts of
the Cape of Good Hope.

Title has;
Section ..., Act . of 19.
this Deed in respect of.....

G 7. FR Folio 111
Sgd. ?
Clerk in charge

Retransferred.

Lot D.M.B. = 1.6650 morgen
TRANSFERRED 28.7.193[illegible] (No 7839) to Dm Breach married

is of Part E.
Prefect Apostolic of Central
for 15 years by notarial
ded 9 May 1933.
Sgd. 44[illegible]/1933
This 21st day of July 1933
egistry Sgd. ?
for Registrar.

Jewish Cemetery Site = 43617 Sq. ft.
TRANSFERRED 28/10/1938 to Trustees of George Hebrew Congregation
(No 11096)

Presbyterian Cemetery Site = 42950 Sq. ft.
TRANSFERRED 20.1.1939 (No 712) to Presbyte[illegible] of Port Elizabeth of
the Presbyterian Church of S.A.

~~1965~~
Lot Leda = 14745 sq. ft.
SFERRED 29/12/1[illegible] (No 13615) To R.A. St. LEGER

Lot 7 - 1.0073 morgen
TRANSFERRED 21/3/1940 to SEM. St LEGER
(No 2612) (Mar.

...under...

STRATION OF SERVITUDE.

No 13615 Dated 2.9.12.1938 the owner
...bons in title of the property thereby conveyed
...on carrying on any trade or business
Saw Mill, Grist Mill and Certain
connected with a timber factory
~~Subject to~~

...all more fully appear on reference to
...deed of transfer
~~mentioned~~

(Sgd) H BEZUIDENHOUT

...38 ... Asst. Registrar of Deeds.

...resumption waived in respect of
... Vale Est. Co. Mun. 2519 dd. 11/6/1937.
No 17/1937. (Sgd) J.A. BECKER
for Registrar of Deeds

Resumption waived in respect of
portions of the land hereby granted
...ated 45,000 Sq.ft. Vale Est. Co.
No 1389 dd. 23/5/1938 filed with Countyprn.
Sgd. J. BEZUIDENHOUT.
for Registrar of Deeds

...resumption waived in respect of
portions of the land hereby granted
...ing 14745 Sq. feet Vale Est. Co. Mun.
...dd. 20.10.1938. filed with Counterpart
938. (Sgd) J BEZUIDENHOUT
for Registrar of Deeds

...part F. = 94005 Sq.ft.
...ion F. = 38561 Sq.ft.

...ERRED 10/9/1946 to R.F. Leger
No 571.

...N E = 5.8810 mgn. to property etc.

...ERRED 29/5/1946 to Govt. of Union
No ...

Ptn. 55 part F = 83035 sq.ft.

TRANSFERRED GETRANSPORTEER
17/4/1949 No 5964
to A.E. Bennett.

Portion 56 of Parte F = 1.9303 mgn.

TRANSFERRED GETRANSPORTEER
15/4/1949
No 15201.
to Thear Apostolos of the Pearcaide of Cradsina

PORTION 64 of Part F = 61.0097 mgn.
LEASED TO George Golf Club for
25 years by agreement
Lease dated 3.9.1949
Filed BK 1 No 5
Registered 24-11-1949
Deeds Office
Cape Town Sgd. H Loveser.
for Asst Registrar.

Ptn 65 of Part E = 4.1927 mgn.

GETRANSPORTEER 3572/1955 Asn Educational Trustees for
TRANSFERRED The Rhodesdistrict
No 2224 of Scora
Restant
Remainder (Sgd) F BRUNT
Asst.-Registrateur.
Asst. Registrar.

Ptn 44 = 1.0718 mgn

GETRANSPORTEER 31/7/1962 Asn Ca Robertson
TRANSFERRED To
No 12063
Restant
Remainder (Sgd) T POTGIETER
Asst.-Registrateur.
Asst. Registrar.

Annex 6 P.J.T.D. part Ptn F = 2.3166 mgn

GETRANSPORTEER 579/52 Asn H. Dormehl
TRANSFERRED To
No 1 of 26
Restant
Remainder (Sgd) F. BRUNT
Asst.-Registrateur.
Asst. Registrar.

Ptn 69 of Part F = 2842 Sq.ft.

GETRANSPORTEER 11/3/1961 Asn Eastlake MA.
TRANSFERRED To Slater
No 30515
Restant
Remainder (Sgd) F. BRUNT
Asst.-Registrateur.
Asst. Registrar.

64

Erf 3206 = 1·7204 Mgn.

GETRANSPORTEER 21. 5. 1963 Aan Kerkraad van de N.G.
TRANSFERRED To Gemeente te George
No. 9151 Restant
Remainder A. C. G. HUTCHINGS
Asst. Registrateur.
Asst. Registrar.

Erf 2428 = 54,400 Sq. ft.

GETRANSPORTEER 21/5/1963 Aan Cape Town Oxygen
TRANSFERRED To Ltd.
No. 9153 Restant
Remainder A. C. G. HUTCHINGS
Asst. Registrateur.
Asst. Registrar.

Plan 71 (Plan of Farm F) = 31·7101 Mgn.

GETRANSPORTEER 12- 6 1953 Aan Govt. of the Union
TRANSFERRED To of South Africa
No. 8556 Restant
Remainder (Sgd) F BRUNT
Asst. Registrateur.
Asst. Registrar.

Erf 3137 = 1·0774 Mgn.

GETRANSPORTEER 12. 9. 1956 Aan Govt. of the Union
TRANSFERRED To of South Africa
No. 13036 Restant
Remainder (Sgd) E.L. SMITH
Asst. Registrateur.
Asst. Registrar.

Erf 2425 = 78833 Sq. ft.

GETRANSPORTEER 18- 11-1957 Aan Est. late R.A.
TRANSFERRED To St. Leger
No. 16515 Restant
Remainder A. C. G. HUTCHINGS

GETRANSPORTEER 13/12/1957 Aan Trustees by Ord
TRANSFERRED To of Govt of Union
No. 13,821 Restant of South Africa
Remainder A. C. G. HUTCHINGS
Asst. Registrateur.
Asst. Registrar.

Erf 3420 meas. 28801 Sq. ft.

GETRANSPORTEER 5/5/1961 Aan Govt. of Union
TRANSFERRED To of South Africa
No. Restant
Remainder (Sgd.) F BRUNT
Asst. Registrateur.
Asst. Registrar.

Erf 3312 = 46500 Sq. ft.

GETRANSPORTEER 7/6/1961 Aan
TRANSFERRED To
No. 7553 Restant
Remainder (Sgd) F BRUNT
Asst. Registrateur.
Asst. Registrar.

Erf 3336 = 3·6628 Mgn.

GETRANSPORTEER 16/5/1961 Aan Govt of the Union
TRANSFERRED To of South Africa
No. 9263 Restant
Remainder (Sgd) F BRUNT
Asst. Registrateur.
Asst. Registrar.

Erf 2394 = 36894 Sq. Ft.

GETRANSPORTEER 19/4/1962 Aan Cape Coal
TRANSFERRED To formerly Malan
No. 5570 Restant Bros Standerton
Remainder

Plan 28 Portion of Erf

LEASED TO Govt. of Union of South Africa
from 1st January 1952 by
dtd. 31st Dec 1951
Lease No 1/1
Registered 10 Jan
Deeds Registry
Cape Town

Portion 12 of Erf 464

Leased to South African Tuberculosis Assn
for 25 years
by Deed of Lease
2/12/1957 Pretoria
Lease No 264/
Registered 12-12
Deeds Registry
Cape Town for the

Erf 3444 = 1·4271

VERHUUR aan George R
LEASED to
vir 25 years from
deur Hi C 39
by Deed dated
wyse Land Lease No
Gere registreer hierdie 30-11-
Registered this
in the Land Lease Re
ARTEKANTOOR, DEEDS REGISTRY, KAAPSTAD. CAPE TOWN.
ASST. REG
ASST. R

= 17.2902 morgen

9-10-1964 Oaleé Court (Proprietary) Limited

Dorii

= 1.1206 morgen

9.-10-1964 H. B. Kriel (by Agent)

To (morgen)

Dorii

= 69626 sq feet

4. 3. 1965 Est. late H. J. Rauberheimer

Registrateur.
Asst. Registrar.

= 7.9604 morgen

30-11-1965 Aan Republiek van Suid Afrika

To

Restant

Remainder

Asst.-Registrateur.
Asst. Registrar.

Certificate of Registered Title No. 30295/ issued in terms of Sertifikaat van Geregistreerde Titel No. ..... uitgereik kragtens

Sect. #3 Act No. #7/1937 In respect of the
Art. ..... Wet No. ..... ten opsigte van .....

ERF 3748 GROOT 24.6237 Mgn

Remainder
Restant

DEEDS OFFICE,
AKTESKANTOOR,
CAPE TOWN/KAAPSTAD.
30-11-1965

ASST. REGISTRAR.
ASST.-REGISTREATEUR.

VERHUUR aan
LEASED to .....
vir
for .....
deur Huurkontrak gedateer
by Deed of Lease dated ..... 19 .....
weggelê
filed as .....
Geregistreer hierdie ..... van
Registered this ..... day of
..... 19 .....

AKTEKANTOOR,
DEEDS REGISTRY,
KAAPSTAD.
CAPE TOWN.

ASST. REGISTRATEUR.
ASST. REGISTRAR.

ERF 3748 = 65.2006 MGN

VERHUUR aan GEORGE GOLF CLUB
LEASED to .....
vir 25 YEARS FROM 1.7.1957
for .....
deur Huurkontrak gedateer
by Deed of Lease dated 12.1.1964
weggelê Land Lease No 29/1965.
filed as .....
Geregistreer hierdie 30-11-1965 van
Registered this ..... day of
in the Land Lease Register
Vol 1 Fol 146 ..... 19 .....

AKTEKANTOOR,
DEEDS REGISTRY,
KAAPSTAD.
CAPE TOWN.

ASST. REGISTRATEUR.
ASST. REGISTRAR.

ERF 4160 - 1.2886 MGN.

GETRANSPORTEER 12-2-1968 Aan M. A. D. NEURAY
TRANSFERRED To BRN POLICE
No. 2416
Restant M.C.P.
Remainder

VIR FUNKSIE ENDOSSEMENTS SIEE
VIR VERDERE ENDORSEMENTS SIEM: Clarence Heyneke

ENDORSEMENT IN TERMS OF SECTION 11 (1) (b) OF ACT No. 37 OF 1955.

ENDOSSEMENT KRAGTENS ARTIKEL 11 (1) (b) VAN WET Nr. 37 VAN 1955.

A PORTION OF ~~THE REMAINDER~~ ERF 3100 SUBDIVIDED

The herein-mentioned property
Die eiendom hierin vermeld

has been expropriated by the Railway Administration in terms of
is deur die Spoorwegadministrasie onteien kragtens artikel 3 (1)
section 3 (1) of Act No. 31 of 1950.
van Wet Nr. 37 van 1950.

Vide Notice of Expropriation No. G 37/1966 Application d.d.
Vide Onteieningskennisgewing Nr. Aansoek en
29/7/1966 and plans filed Herewith CMR 896
planne geliasseer

DEEDS OFFICE,
AKTEKANTOOR,
CAPE TOWN.
KAAPSTAD.

SUBDIVIDED

BY

SGD. G. H. BOSHOFF
REGISTRAR OF DEEDS.
AD.J.T. REGISTRATEUR VAN AKTES.

17.5.1968.

THE ABOVE ENDORSEMENT APPEARS ON THE DEEDS REGISTRY DUPLICATE HEREOF.

DEEDS REGISTRY
CAPE TOWN.

12-2-1968

AD.J.T. REGISTRAR OF DEEDS.

Erf 4168 mas. 70,959-00 Sq ft

-7-3-1968

GETRANSPORTEER Aan Pacaltsdorp
TRANSFERRED To
Lenguageational Kerk

No. 16990 Restant
Remainder

Asst.-Registrateur/Asst. Registrar.

ENDORSEMENT IN TERMS OF SECTION 31 (6) OF ACT 1937 (AS AMENDED)

ENDOSSEMENT KRAGTENS ARTIKEL 31 (6) VAN WET 1937 (SOOS GEWYSIG)

THE PORTION OF
The herein-mentioned property ADJOINING
Die eiendom hierin vermeld

has been expropriated by ADMINISTRATOR OF THE
is onteien deur die SECTION 130 ORDINANCE 1927
in terms of Sect 2 (3) OF ORD 31/1937
kragtens

Vide Notice of Expropriation No. dd.
Vide onteieningskennisgewing Nr.

filed as exprop. caveat 6027/67 plans in d
geliasseer as onteieningskaveat planne in

Ilasseer Herewith.

~~DEEDS OFFICE,~~
~~AKTEKANTOOR,~~
~~CAPE TOWN.~~
~~KAAPSTAD.~~

~~REGISTRAR OF~~
~~REGISTRATEUR VA~~

(1) FROM UNREG ERF 3169 ± 0.5 M
(2) FROM REMAINDER ± 0.370 MGN
DEEDS REGISTRY, H. R
CAPE TOWN. 29. 8. 1967 AUX

THE ABOVE ENDORSEMENT ON THE DEEDS REGISTRY HEREOF.

DEEDS REGISTRY
CAPE TOWN.

12-2-1968

ASST. REGISTRAR OF DEEDS.

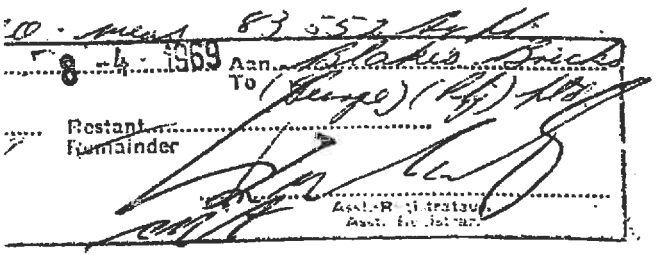
Erf 4162 = 83752 Sq ft

4-7-1968

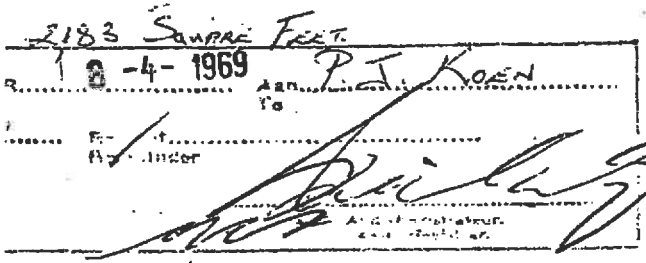
GETRANSPORTEER Aan T. J. Hoop
TRANSFERRED To

No. 14111 Restant
Remainder

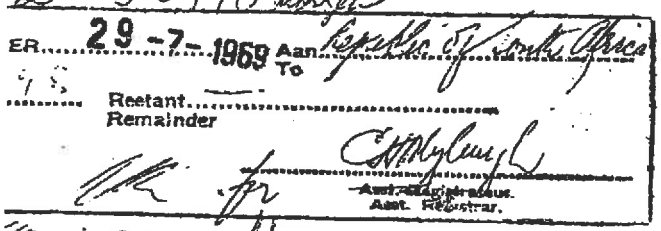
Asst.-Registrateur/Asst. Reg



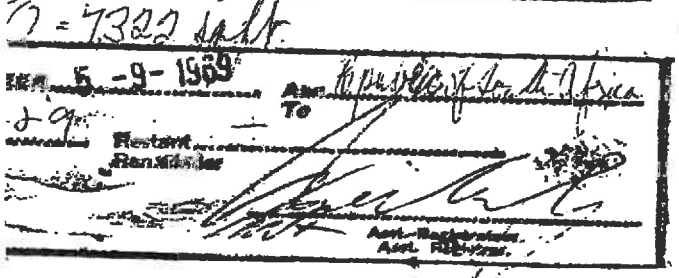
8-4-1969 Aan To Blakes Bricks
Restant Remainder
Asst.-Registrateur Asst. Registrar



2183 Square Feet
18-4-1969 Aan To P.J. Koen
Restant Remainder
Asst.-Registrateur Asst. Registrar



12 = 5.0770 morgen
ER 29-7-1969 Aan To Republic of South Africa
Restant Remainder
Asst.-Registrateur Asst. Registrar



7 = 7322 sqft.
ER 5-9-1969 Aan To Republic of South Africa
Restant Remainder
Asst.-Registrateur Asst. Registrar

24229/69

By reason of the transfer this day No. ..... 19 ..
As gevolg van transport hede gedateer Nr.

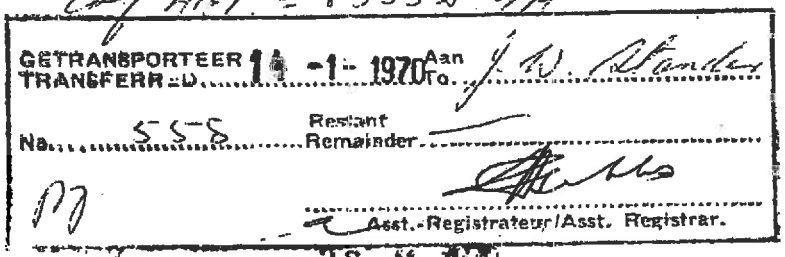
of Erf 4350
van
In extent 7322 sq ft
groot
to Republic of South Africa
aan
the endorsement dated 17/5/66
is endorsement gedateer
has been superseded
uitgewis.

Deeds Office,
Aktekantoor,
Cape Town,
Kaapstad.

Asst.-Reg. of Deeds
Asst. Reg. van Aktes

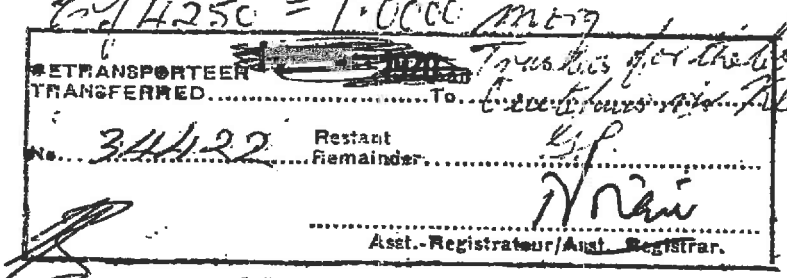
5-9-1969

Erf 4161 = 83332 sq ft.

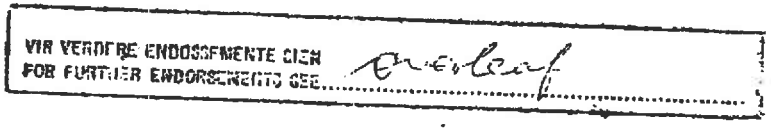


GETRANSPORTEER 14-1-1970 Aan To J.W. Stander
TRANSFERRED
No. 55-8 Restant Remainder
Asst.-Registrateur/Asst. Registrar

Erf 4250 = 1.0000 morg



26-11-1970
GETRANSPORTEER Trustees for the time being of
TRANSFERRED To Lee Evans Trust, Bloemhof, George.
No. 34422 Restant Remainder
Asst.-Registrateur/Asst. Registrar



VIR VERDERE ENDOSSEMENTE SIEN
FOR FURTHER ENDORSEMENTS SEE overleaf

(16)

Commonwealth Estate Trust George Ruiters
Vol. 15 No. 15

4596 ... 9466 sq. metres

ORTEER 17-6-1970 Aan To ... H. M. Lambrechts Trust

RED 0758

Restant Remainder

Asst. Registrateur. Asst. Registrar.

4599 groot 1.2276 hektaar

TEER 6-8-1970 Aan To Republiek van Suid-Afrika

D.

245 Restant Remainder

Asst.-Registrateur/Asst. Registrar.

425 groot 1870 sq metres

RTEER 6-8-1970 Aan To Afrikaanse Taal-Museum van Suid-Afrika

SD.

9.16 Restant Remainder

Asst.-Registrateur Registrar.

4567 = 8.5653 Hek.

23-9-1970 Aan To Overberg Transvaal Streek van Oudekoppies en Uitbreidings van Oudekoppies Dorpsgebied

NSPORTEER

27842

Asst.-Registrateur.

Erf 4427 = 11235 sq.m

GETRANSPORTEER 18-10-1971 Aan To The New Apostolic Church (Africa)

TRANSFERRED A.D.

No. 25246 Restant Remainder

Asst. Registrateur/Asst. Registrar

Erf 4568 = 1424 Sq m.

Erf 4260 = 33469 Metres

GETRANSPORTEER 24-5-1971 Aan To Potgieter Trust Limited

TRANSFERRED A.D.

No. 13425 Restant Remainder

Asst.-Registrateur. Registrar

Erf 4941 = 4104 Sq Metres

GETRANSPORTEER 18-10-1971 Aan To S. P. Nel & Company (George) (Proprietary) Limited

TRANSFERRED A.D.

No. 7 Restant Remainder

Asst.-Registrateur. Asst. Registrar.

ERF 5152 = 1412 sq m

GETRANSPORTEER 18-10-1971 Aan To

TRANSFERRED A.D.

No. Restant Remainder

Registrateur. Registrar.

ERF 5117 = 1792 sq m

GETRANSPORTEER 18-10-1971 Aan To

TRANSFERRED A.D.

No. Restant Remainder

Registrateur. Registrar.

ANNEXURE "H" TO DEEDS & RENTS VOL 15 No. 15

1. ERF 5139 meas 4400 Sq Metres

TRANSPORTEER TRANSFERRED ... R H MORRIS (PROPRIETARY) LIMITED

No. 32284

Asst. Registrar.

1. ERF 4936 meas. 4122 Sq. Metres
2. ERF 4937 " 4104 " " "

GETRANSPORTEER TRANSFERRED ... C A ROBERTSON

No. 32286

Asst. Registrar.

ERF 4935 meas. 4122 Sq. Metres

GETRANSPORTEER TRANSFERRED ... GILBORGE (PROPRIETARY) LIMITED

No. 32787

Asst. Registrar.

ERF 4975 meas 4275 Sq Metres

TRANSPORTEER TRANSFERRED ... E M BUKMANN

2279

Asst. Registrar.

1. ERF 4942 meas. 4104 Sq. Metres
2. ERF 4943 " 4122 " " "

GETRANSPORTEER TRANSFERRED ... THE REPUBLIC OF SOUTH AFRICA

No. TS 386

Asst. Registrar.

ERF 4928 meas. 4122 Sq. Metres

TRANSPORTEER TRANSFERRED ... P S LIVANOS

T 3786

Asst. Registrar.

ERF 4922 meas. 4292 Sq Metres
ERF 4923 " 4275 " " "

TRANSPORTEER TRANSFERRED ... KURLINK (PROPRIETARY) LIMITED

T 3385

ERF 4938 meas 4104 Sq Metres

GETRANSPORTEER TRANSFERRED ... YORK MOTORS (PROPRIETARY) LIMITED

No. VLR 37288

Registrar.

F 4946 meas 4104 sq. Metres

TRANSPORTEER 10-3-1972 Aan UNITED DAIRIES
TRANSFERRED ..... Co-operative Limited.
III 5387 Restant Remainder
Asst.-Registrateur/Asst. Registrar.

ERF 5314 meas. 8217 sq. Metres

TRANSPORTEER 1-12-1971 Aan EVERITE LIMITED.
TRANSFERRED .....
X 32789 Restant Remainder
Asst.-Registrateur/Asst. Registrar.

ERF 4947 meas. 4122 sq. Metres

TRANSPORTEER 9-12-1971 Aan C.V.G. BEUKES
TRANSFERRED ..... To .....
XI 32790 Restant Remainder
Asst.-Registrateur/Asst. Registrar.

ERF 5310 meas. 8024 sq. Metres
" 5311 " 8010 sq. Metres
" 5312 " 7885 " " "

TRANSPORTEER 1-12-1971 Aan PLATE GLASS PROPERTIES (GEORGE) (PROPRIETARY)
TRANSFERRED ..... To ..... LIMITED
X 13279 Restant
Asst. Registrar.

ERF 5318 meas. 8388 sq. Metres

GETRANSPORTEER 7-12-1971 Aan PAY AND TAKE
TRANSFERRED ..... To ..... PROPERTIES (GEORGE) (PROPRIETARY) LIMITED
No. XIII 32792
Asst.-Registrateur, Asst. Registrar.

Leased area = 8251 sq. Metres
Society for the Prevention of Cruelty to Animals
George Division
20 years from 13-10-1968
4-6-71
Private Lease (39) /72
12-5-1972
72.

ERF 5316 meas. 3,2777 Hectares

GETRANSPORTEER 10-3-1972 Aan THE STELLENBOSCH FARMERS' WINERY
TRANSFERRED ..... To ..... LIMITED
No. 9888 Pl...
Asst. Registrar.

ANNEXURE B'

(31)
(2)

The following endorsement dictated upon the Deeds Office copy of the Deed.

ENDORSEMENT IN TERMS OF SECTION 37 (6) OF ACT No. 47 OF 1937 (AS AMENDED)
ENDOSSEMENT KRAGTENS ARTIKEL 37 (6) VAN WET No. 47 VAN 1937 (SOOS GEWYSIG)

PORTION OF
the herein mentioned property measuring ± 2,44 HA.
which is hereby expropriated by RAILWAY ADMINISTRATION
in terms of Sec. 37 Act 37/56
under Notice of expropriation No. 739/72 d.d. 21/7/72
Onteieningskennisgewing No. 739/72 plans in duplicate filed
registered as aforesaid. caveat plannne in tweevoud ge-
registreer as voorheenigs caveat

DEEDS OFFICE,
KANTOOR,
CAPE TOWN.
KAAPSTAD.
15-9-1972
REGISTRAR OF DEEDS.
REGISTRATEUR VAN AKTES.

GETRANSPORTEER TRANSFERRED 27-04-1973 Aan To
No. T0447 Restant Remainder
Asst.-Registrateur. Asst. Registrar.

ERF 5971 MEAS. 3044 Sq. METERS.
GETRANSPORTEER TRANSFERRED 31-07-1973 Aan To AFRICAN OXYGEN Limited
No. 20018 Restant Remainder
Asst.-Registrateur/Asst. Registrar.

1) ERF 5307 MEAS 7558 Sq. METERS
2) ERF 5305 MEAS 7003 Sq. METERS (GEORGE)
GETRANSPORTEER TRANSFERRED 31-07-1973 Aan To SALSA PROPERTIES (PTY) LTD
No. 20020 Restant Remainder
Asst.-Registrateur/Asst. Registrar.

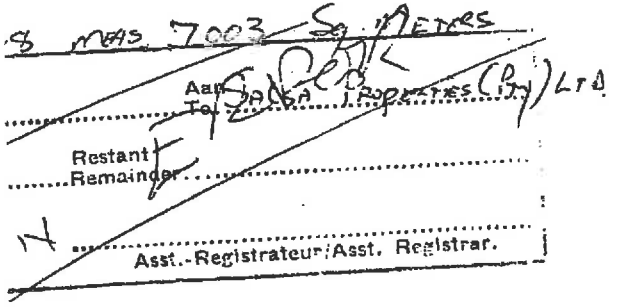
1) ± 4026 - 4131 SQ MET.
2) ± 4027 - 4108 SQ MET.

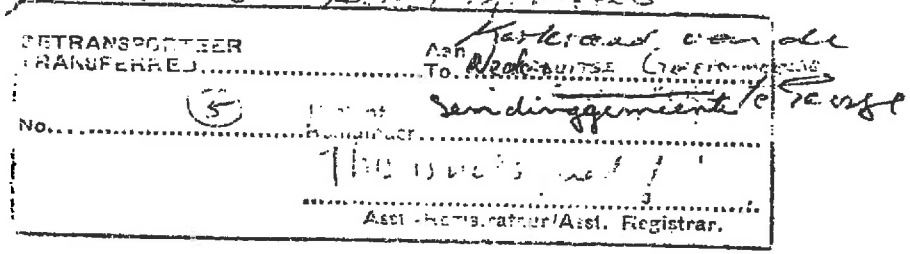
GETRANSPORTEER TRANSFERRED Aan To
No. 29034 Restant Remainder
Asst.-Registrateur. Asst. Registrar.

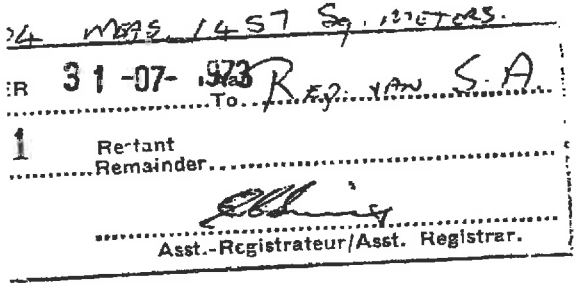
OVERLEAF

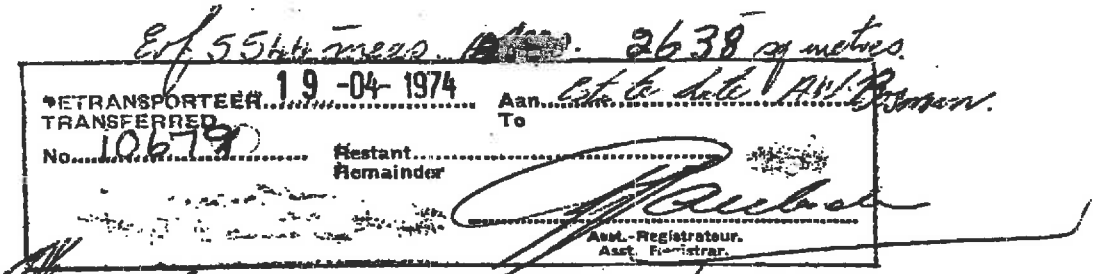
14

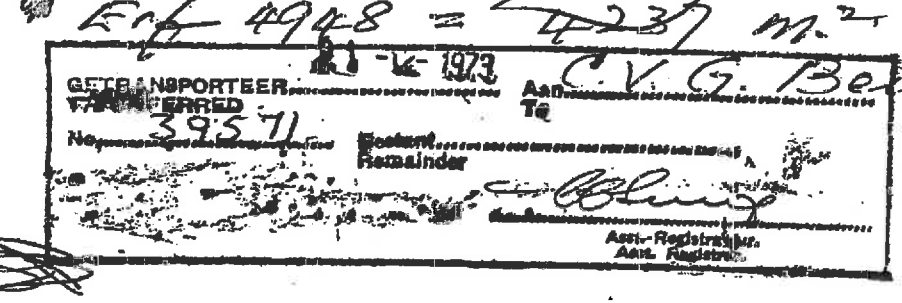
APPLICATION TO GEORGE DATED 15/11/73

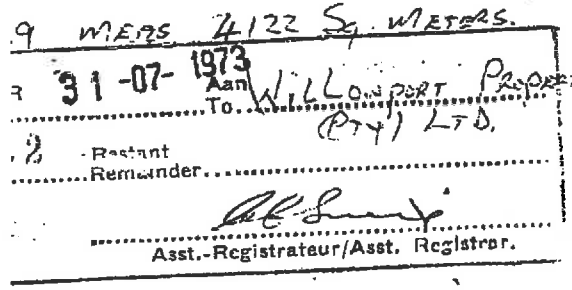

MEAS 7003 Sq. METERS
Aan To
Restant Remainder
Asst.-Registrateur/Asst. Registrar.


ERF 5796 = 4559 Sq. METERS
GETRANSPORTEER TRANSFERRED
Aan To
No.
Asst.-Registrateur/Asst. Registrar.


MEAS 1457 Sq. METERS.
31-07-1973
To
Restant Remainder
Asst.-Registrateur/Asst. Registrar.


Erf 5544 meas. 2638 sq metres.
GETRANSPORTEER TRANSFERRED
19-04-1974
Aan To
No. 10679
Restant Remainder
Asst.-Registrateur. Asst. Registrar.


Erf 4948 = 4237 M²
-6-1973
GETRANSPORTEER TRANSFERRED
Aan To
No. 39571
Restant Remainder
Asst.-Registrateur. Asst. Registrar.


MEAS 4122 Sq. METERS.
31-07-1973
Aan To
Restant Remainder
Asst.-Registrateur/Asst. Registrar.

ERF ... 1,2779 HECTARES

GETRANSPORTEER 10 -3- 1972 SHELL SOUTH AFRICA (PROPRIETARY) LIMITED

V5389

ERF 4934 ... 4104 Sq Metres

GETRANSPORTEER 10 -3- 1972 V.F. KONSTRUKSIE (EIENDOMS) BEPERK

V5390

ERF 4945 ... 4254 Sq. Metres

... 1972 B. SAUERMAN AND ANOTHER

5391

ERF 5306 ...

GETRANSPORTEER 10 -3- 1

ERF 5137 ...

12 -5-

10625

ERF 5140 ...

GETRANSPORTEER 12 -5-

10626

438

ERF 5135 mens. 4462 Sq Meters

GETRANSPORTEER 12 -5- 1972 DE FROST (GERKE CHARLES (MILITARY) LIMITED

No. 10627

ERF 4924 mens. 4292 Sq. Meters

GETRANSPORTEER 12 -5- 1972 J. C. SKRYNWERKERS (ELENDOMS BEPERK)

No. 10628

ERF 4428 mens 1592 Sq Meters

GETRANSPORTEER 6 -6- 1972 THE TRUSTEES OF THE CALVARY CLOURED ASSEMBLY OF THE PENTE COSTAL PRESBYTERIAN CHURCH

No. 12774

ERF 5340 =

GETRANSPORTEER 20-0-1

No. 14935 Restant... Remainde

ERF 4924 = A

GETRANSPORTEER 8 S

No. 22917 Restan Remai

ERF 5546

GETRANSPORTEER

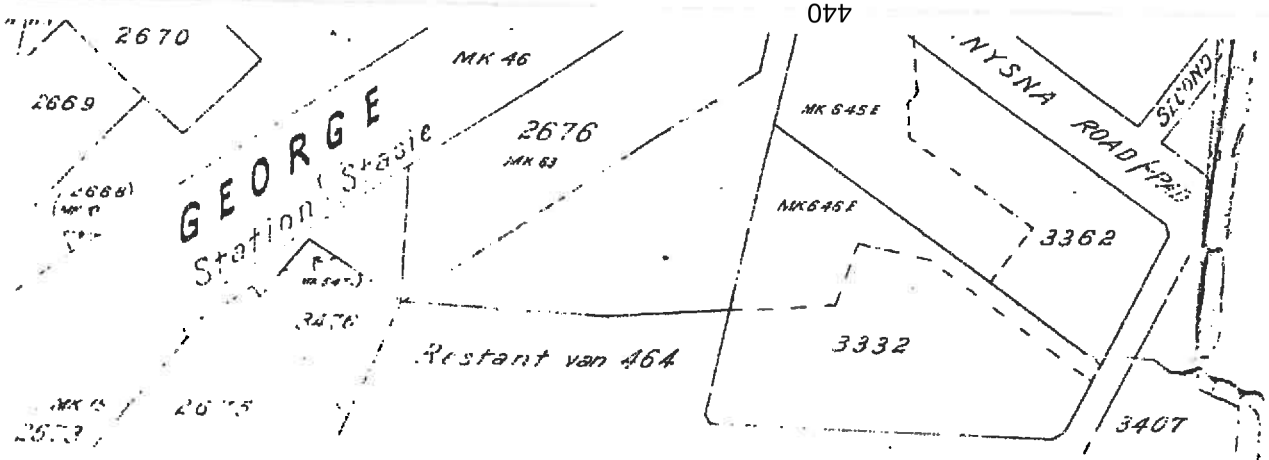
No. 22018

ERF 5319 = d 3

GETRANSPORTEER 3805 15

No.

439



SCALE / SKAAL 1:5000

Metres / Meter

Plan showing land coloured red, to be expropriated by the Railway Administration, being
Plan wat grond (rooi gekleur) aantoon wat deur die Spoorwegadministrasie onteien moet word synde

portion of *Remainder of*
'n gedeelte van Restant van *Erf 464 George.*

Situate in *the Municipality and Administrative District of* *GEORGE* *Province of Cape of Good Hope.*
Gelee in *die Munisipaliteit en Administratiewe Distrik* *Provinsie Kaap die Goeie Hoop.*

Owner *Municipality of*
Eienaar *Munisipaliteit van* *George*

Title: *George Quits. 15:15*
Titel No *George Erfpag*

Diagram
Kaart No *B. 1293/1920*

Drawn by / Geteken deur	G.J.L.
Checked by / Nagesien deur	H.J.S.
Approved by / Goedgekeur deur	
Amended/Gewysig	

Area (Approximately) / Grootte (ongeveer) *2,44* *hectares / hektaar*
Compiled from / Saamgestel uit *ODN. 133.C.1069* *and Diagram data. / en Kaartgegewens*

Date Datum *17·6·1971*

Noted in Deeds Office.
In aktekantoor aangeteken.

Land Surveyor
Landmeter

Erf 6566 = 12,8484 Hectares

11-09-1974 The Master of the Supreme Court

[illegible]

78(1)

Endorsement in terms of Sec [illegible] of Act 47/1937

By reason of Deflexion of Time, Lease No. 4/1949 dated 5 June 1949 and registered on 3 September 1948 hereon, has [illegible] terminated

Application Files with Misc. 196/74

Deeds Registry
Cape Town

Asst. Registrar of Deeds

Erf 5309 = 76,73 sq. metres

Page 19

FOR FURTHER ENDORSEMENTS SEE
VIR VERDERE ENDOSSEMENTE SIEN

GETRANSPORTEER 3-04-1974 AAN J.J. Watson
TRANSFERRED TO

No. 9191 Registrar
Asst. Registrar

ASST. REGISTRAR OF DEEDS

Certificate of Registered Title No. 33967 issued in terms of
Sertifikaat van Geregistreerde Titel No. ingevolge kragtens
Sect. 42 Act No. 47/37 in respect of the
Art. 42 Wet No. ten opsigte van

Remainder
Restant

DEEDS OFFICE,
AKTEKANTOOR,
CAPE TOWN/KAAPSTAD.
2-10-74

ASST. REGISTRAR.
ASST. REGISTRATEUR.

Cancelled by 4351 dated 6/ 0684 1974

In terms of the ... 2.B.(2) of Act
Kragtens die ... van Wet
No. 48/61 ... (a).1.2.5
have ceased to apply to the remainder
nie meer van toepassing op die restant nie.

Minister's consent ... 1974
Minister se toestemming

DEEDS REGISTRY,
AKTEKANTOOR,
2-10-74

DIRECTOR OF DEEDS.
DIREKTEUR VAN AKTES.

DELETE WHAT IS NOT NECESSARY.
HAAL DEUR WAT NIE NODIG IS NIE.

No. T. ..... 176 Remainder .....

Asst. Registrar.

Ep 5317 groot 1765 sq. m.

GETRANSPORTEER 5 -06- 1974 Aan To Outeniqua Estates (Edms) Bpk.
TRANSFERRED

No. T. 1596 176 Restant Remainder

Asst. Registrateur/Asst. Registrar.

Ep 5541 area 7448 s.m.

GETRANSPORTEER 0 -08- 1974 Aan To Rosa-Park (Edms) Bpk.
TRANSFERRED

No. T 176 Restant Remainder
29181

Asst. Registrateur/Asst. Registrar.

Ep 5313 area 84332 m²

GETRANSPORTEER 8 -11- 1974 Aan To Blue Train Investments (Pty) Ltd
TRANSFERRED

No. T 40174 / 176 Restant Remainder Oyster Property Limited

Asst. Registrateur/Asst. Registrar

Vide onteieningskennisgewing 1169/74 plans in duplicate filed
filed as expron. caveat
geliasseer as onteieningskaveat planne in tweevoud ge-
liasseer herewith

DEEDS OFFICE,
AKTEKANTOOR, 8-10-1974
CAPE TOWN.
KAAPSTAD.

REGISTRAR OF DEEDS.
REGISTRATEUR VAN AKTES.

43765 =

Certificate of Registered Title No. T /74 issued in terms of
Sertifikaat van Geregistreerde Titel No. uitgereik kragtens
Sect. 43 Act No. 47/37 In respect of the
Art. Wet No. ten opsigte van
Erf 6473 groot 17,2970 HA.

Remainder
Restant

DEEDS OFFICE,
AKTEKANTOOR,
CAPE TOWN/KAAPSTAD.
27-12-1974

ASST. REGISTRAR.
ASST.-REGISTRATEUR.

Applies to erf 6473 Meas 17, 2970 HA.

In terms of the provisions of section
Kragtens die bepalings van Artikel 2 (A) (2) of Act
van Wet
No. 48/4 restrictions contained in condition(s)
No. is die restriksies vervat in voorwaarde(s) 1+5
have ceased to apply to the property herein described.
nie meer van toepassing op die eiendom hierin genoem nie.

Minister's consent filed with
Minister se toestemming geliasseer by MTSC 1/75

DEEDS REGISTRY,
AKTEKANTOOR, 27-12-1974

REGISTRAR OF DEEDS.
REGISTRATEUR VAN AKTES.

DELETE WHAT IS NOT NECESSARY.
HAAL DEUR WAT NIE NODIG IS NIE.

Exhibit A-28 (contd.)

GET TRANSFERRED
TRANSFERRED
To
Asst. Registrar

GET TRANSFERRED
TRANSFERRED
To
Asst. Registrar

Exhibit A-29 (contd.)

Registration No. T 14020/75

No. ..... Remainder

Asst.-Registrateur.
Asst. Registrar.

38771

Certificate of Registered Title No. ..... issued in terms of
Sertifikaat van Geregistreerde Titel No. ..... uitgereik kragtens
Sect. 43 Act No. 47/37 in respect of the
Art. ..... Wet No. ....., ten opsigte van .....
ERF 5845 MEAS 48, 4961 H.A.

.....

Remainder
Restant .....

DEEDS OFFICE,
AKTESKANTOOR,
CAPE TOWN/KAAPSTAD.

ASST. REGISTRAR.
ASST.-REGISTRATEUR.

9-12-1975 ..... 19 .....

Erf 6474 groot 5227 vk mr

GETRANSPORTEER 19-11-75 Aan Die Afrikaanse
TRANSFERRED ..... To ..... Christelike Vrou-Vereniging.

No. T35905/75 Restant
Remainder .....

Asst.-Registrateur/Asstt Registrar.

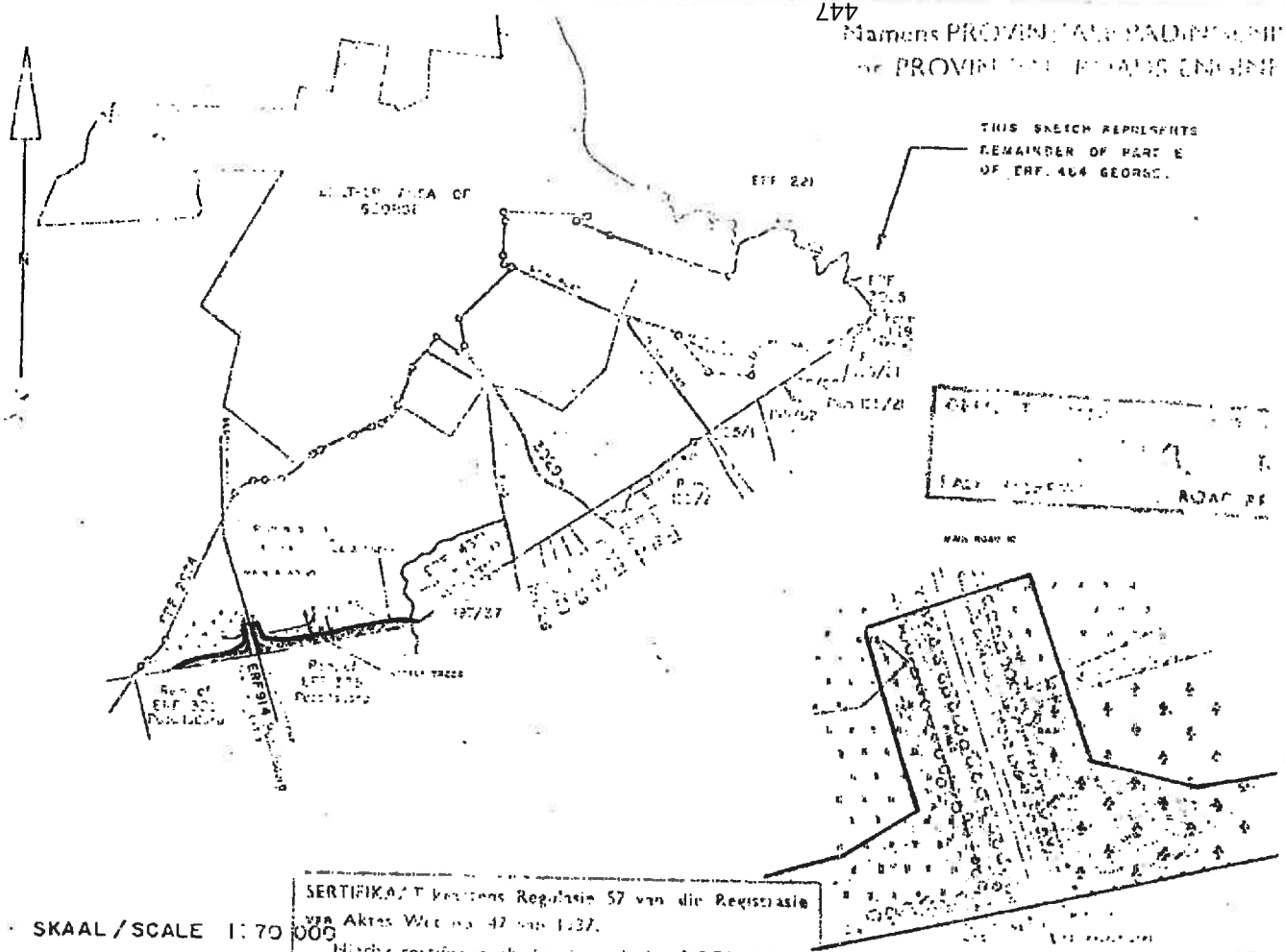
Erf 6240 = 2154 vk M.

GETRANSPORTEER 29-3-1976 Aan H C Barnard.
TRANSFERRED ..... To .....

No. T6095/76 Restant
Remainder .....

Asst.-registrateur/Asst. Registrar

Namens PROVINSIALE PADINSPEKTEUR
or PROVINCIAL ROADS ENGINEER



SKAAL / SCALE 1:70 000

SKAAL / SCALE 1:7 000

INSET

T.G.
4/12/73.

SERTIFIKAAT kragtens Regulasie 57 van die Registrasie van Aktes Wet No. 47 van 1937.

Hierby sertifiseer ek dat die ondergetekende, RODE ..., nr. van eiendom hierin beskryf, ... die Kaapse Provinsiale Administrasie ... geneem is.

31 JUL 1974
Datum

... PADINSPEKTEUR

48/61 ..... Van Wet

.....) 1 and 5

by MISC. 1108 1975

- 9 -12- 1975

Asst. Registrar of Deeds

REGISTRATEUR VAN AKTES.

NOTE: WHERE NOT NECESSARY, THIS DESIGN MAY BE OMITTED IN NIE.

CF 7362. groot 1506 vkm.

TRANSPORT 25 -02- 1977 Aan To M.C. Barnard

No. 3441 Restant Remainder

Asst.-registrateur/Asst. Registrar

FOR FURTHER ENDORSEMENTS SEE VIR VERDERE ENDOSSEMENTE SIEN Page 25

in so far as it affects Erf 7419 George, have been cancelled.

Consent filed as BC 10680.

Deeds Registry
Cape Town

1/1977

Assistant-Registrar of Deeds.

The following endorsement dated 7-6-77 appears on the DC copy hereof.

Registration of Servitude/Registrasie van Serwituut

The within described land is subject to a servitude with regard to
Die binnegemelde grond is onderhewig aan 'n serwituut met betrekking
apportionment of water in terms of an Order of the Water Court
tot verdeling van water in terme van 'n bevel van die Waterhof
(Water Court District No. W10/76 dated 5-6-77 as will more
(Waterhof distrik No.....) gedateer.....soos meer
fully appear on reference to the copy of said Order annexed hereto. filed as K493/77S
volledig sal blyk uit gemelde bevel, waarvan afskrif hiermee geheg is.

Deeds Registry/Aktekantoor,
Cape Town/Kaapstad,
.....19.....

for REGISTRAR/namens REGISTRATEUR.

VIR ENDOSSEMENTE KYK BLADSY 26 ET SEQ.
FOR ENDORSEMENTS SEE PAGE ..... ET SEQ.

Certificate of Registered Title No. Issued in terms of
Sertifikaat van Geregistreerde Titel No. uitgereik kragtens
Sect. 43 Act No. In respect of the
Art. Wet No. ten opsigte van
Farm/Holder
Plaas/Hulsel

DEEDS OFFICE
AKTESKANTOOR
CAPE TOWN/KAAPSTAD
- 7 -07- 1977

ASST. REGISTRAR.
ASST.-REGISTRATEUR.

Certificate of Registered Title T 15917 /1977
Sertifikaat van Geregistreerde Titel
issued in terms of sect. 43 Act
uitgereik kragtens art. Wet
in respect of the
ten opsigte van
Remainder
Restant

DEEDS OFFICE
AKTESKANTOOR
CAPE TOWN/KAAPSTAD
30 -06- 1977

Asst. Registrar
Asst.-registrateur

VIR ENDOSSEMENTE KYK BLADSY
FOR ENDORSEMENTS SEE PAGE 27 ET SEQ

Consulted.
Consent filed as BC 12245 1977

AKTEKANTOOR,
KAAPSTAD.
DEEDS REGISTRY,
CAPE TOWN.

20 -06- 1977

ASST. REGISTRAR OF DEEDS

Certificate of Registered Title No. 16674 issued in terms of Sertifikaat van Geregistreerde Titel No. uitgereik kragtens Sec. Art. 43 Act No. Wet No. 47 1937 in respect of the ten opsigte van Erf 6419 measures 36,085a

Remainder Restant

DEEDS OFFICE CAPE TOWN/KAAPSTAD

7 -07- 1977 19

Asst. Registrar Asst.-registrateur

Certificate of Registered Title Sertifikaat van Geregistreerde Titel T 16673 19 77 issued in terms of sect. uitgereik kragtens art. 43 Act Wet 47/1937 in respect of the ten opsigte van Erf 6419 measures 36,085a

Remainder Restant

DEEDS OFFICE AKTESKANTOOR CAPE TOWN/KAAPSTAD

7 -07- 1977 19

Asst. Registrar Asst.-registrateur

VIR ENDOSSEMENTE KYK BLADSY
FOR ENDORSEMENTS SEE PAGE 18 ET SEQ.

nie meer van toepassing op die eiendom hierin genoem nie.

Minister's consent filed with
Minister se toestemming geliasseer by

RC 16634

DEEDS REGISTRY,
AKTEKANTOOR,

18 -08- 1977

REGISTRAR OF DEEDS,
REGISTRATEUR VAN AKTES.

DELETE WHAT IS NOT NECESSARY.
HAAL DOEN WAT NIE NODIG IS NIE.

EB 4479 measg 1657 sy meites

GETRANSPORTEER
TRANSFERRED 18-08-1977

No. 1
Restant
Remainder

20862

Aan/Agent + Kwartiers
To/Prokureur Herald
Restant
Remainder

Assistent-Registrateur
Assistant Registrar

EB 6231 Gedeelte : 9113 sy.

GETRANSPORTEER
TRANSFERRED

Aan Die Hospitaaltrustees.
To

No. 1 Restant
Remainder

Asst. Registrateur/Asst. Registrar.

FOR FURTHER ENDORSEMENTS SEE
VIR VERDERE ENDOSSEMENTE SIEN

ENDORSEMENTS SEE
ENDOSSEMENTS SIEH

Meneer

OPHEFFING VAN DIE STAAT SE HERNEMINGSREG TEN OPSIGTE VAN DIE RESTANT VAN DIE MEENTGROND (ERF 464) GEORGE : U 10/6/4

Die ontvangs van u skrywe van 20 April 1988 tesame met u tjek vir die bedrag van R16 245,00 word hiermee erken. Ingevolge sertifikaat van restant 14/1988 wat sedertdien vanaf die Landmeter-generaal : Kaap ontvang is, is die grootte van die restant van die meentgrond (Erf 464) 1803,1227 hektaar soos op 11 Maart 1988 waarby Erf 13387, gedeelte van Erf 464, groot 10,2000 hektaar, wat vir die doeleiendes van die Outeniqua proefplaas herneem is maar nog in naam van die Staat geregistreer staan te word, ingesluit is. Die restant van die meentgrond ten opsigte waarvan die Staat se hernemimgsreg gevolglik rojeer moet word beloop dus 1792,9227 hektaar en bereken teen R5,00 per hektaar of gedeelte daarvan is die vergoedingsbedrag slegs R8965,00. 'n Skatkisorder vir R7280,00 te veel betaal gaan derhalwe hiermee saam.

Die nodige toestemming vir die opheffing van die Staat se hernemingsreg oor die restant van die meentgrond is ook aangeheg.

Die uwe

DIREKTEUR-GENERAAL
OPENBARE WERKE EN GRONDSAKE

MUNISIPALITEIT GEORGE
ONTVANG
25 MAY 1988
ONT ERKEN
ANTWOORD

1. Stem hiermee toe kragtens artikel 2A(1) van die Wet op die Beskikking oor Staatsgrond, 1961 (Wet 48 van 1961), tot die rojering van voorwaardes 1 en 5 soos vervat in grondbrief gedateer 15 Junie 1922 (George Erfpagte volume 15 no 15) ten opsigte van:

   Die restant van Erf 464 George, geleë in die munisipaliteit en administratiewe distrik George, groot as sodanig 1803,1227 hektaar met die uitsluiting van Erf 13387 gedeelte van Erf 464 George geleë in die munisipaliteit en administratiewe distrik van George, groot 10,2000 hektaar soos voorgestel en omskryf op kaart L G 516/87 wat nog geregistreer staan te word.

2. Magtig hierby die Registrateur van Aktes, Kaapstad kragtens artikel 2A(2) van voornoemde Wet om die rojering op die titelbewys aan te teken.

ALDUS GEDOEN en GETEKEN te PRETORIA op hierdie 20ste dag van Mei 1988.

.....

P.P. MINISTER VAN MANNEKRAG EN VAN OPENBARE WERKE EN GRONDSAKE
(Volmag : Item C.4(i) van Bylae 2)

REGISTRATEUR VAN AKTES
KAAPSTAD

Dept.

Geagte Meneer

MUNISIPALE TITELAKTES

Jare gelede is reëlings met die Akteskantoor getref om 'n toonbank lêer Nr.662 oop te maak ten opsigte van sekere van die Munisipaliteit se titelaktes.

Die doel van 'n toonbank lêer is dat dit nie nodig is om die Munisipaliteit se titelakte met elke transport van 'n stuk grond daaruit met daardie transport in te dien nie maar daar word net verwys na die toonbank lêer. Op dié manier word transporte van die Munisipale titelakte bespoedig.

Die Akteskantoor het egter nou besluit om alle toonbank lêers te sluit en ons stuur u hiermee die betrokke toonbank lê Nr 662 wat die volgende inhoud het:-

1. Gesertifiseerde afskrif van George Erfpagte Nr 15; — (1)
2. Transportakte Nr 6712/1941;
3. Transportakte Nr T1005/1938.

Geliewe veilige ontvangs te erken op die aangehegte afskrif van hierdie skrywe.

Die uwe
RAUBENHEIMERS ING

Per:

TIM BYRNE

MUNICIPALITY OF GEORGE
MUNICIPALITEIT GEORGE
Dept Administration
Dept Administrasie
1997 -10- 23
Dept.

(1) 39

Gestig • Established 1907
Raubenheimers Ing / Inc • Reg No 93/01742/21

Direkteure / Directors T S Byrne • T J Nel BA B Iur • W M Luttig B Comm LLB • C G Pienaar B Iur LLB LLM • R Engelbrecht BA LLB
Konsultant / Consultant J N Raubenheimer BA LLB

Cathedraalstraat 60 Cathedral Street
Posbus • PO Box 21 George 6530
Docex 1 George
Suid-Afrika / South Africa

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FAX (044) 874 4516
Na ure • After hours 082 490 2966/7
Internet http://www.george.co.za/rb
e-Mail raubenheimers@pixie.co.za

Annexure 5:
LAND USE APPLICATION FORM

GEORGE MUNICIPALITY

APPLICATION FORM FOR APPLICATION SUBMITTED IN TERMS OF THE LAND-USE PLANNING BY-LAW FOR GEORGE MUNICIPALITY

NOTE: *Please complete this form using BLOCK capitals and ticking the appropriate boxes.*					
PART A: APPLICANT DETAILS					
First name(s)	**MARK**				
Surname	**JOB**				
SACPLAN Reg No. (if applicable)	**A/1367/2010**				
Company name (if applicable)	***JONO TRUST PROFESSIONAL PLANNERS***				
Postal Address	***13 PINE CLOSE***				
	PINELANDS		*Postal Code*	**7405**	
Email	*PLANNING@JONOTRUST.CO.ZA / MARK@JONOTRUST.CO.ZA*				
Tel	***021 532 1249***	*Fax*	***086 560 9000***	*Cell*	***082 788 5816***
PART B: REGISTERED OWNER(S) DETAILS (if different from applicant)					
Registered owner	**GEORGE MUNICIPALITY**				
Address	**71 YORK STREET, GEORGE**				
			Postal code	**6530**	
E-mail	**JKOEGELENBERG@GEORGE.GOV.ZA**				
Tel	**044 801 9111**	*Fax*		*Cell*	
PART C: PROPERTY DETAILS (in accordance with Title Deed)					
Property Description [Erf / Erven / Portion(s) and	***REMAINDER ERF 464 GEORGE***				

Farm number(s), allotment area.]							
Physical Address	***P.W.BOTHA BOULEVARD, GEORGE INDUSTRIA, GEORGE, 6536***						
GPS Coordinates	**33°59'14.8"S 22°27'29.4"E**			*Town/City*	**GEORGE**		
Current Zoning	***UNDERTERMINED USE ZONE***	*Extent*	**223.21ha**	*Are there existing buildings?*	Y	***N***	
Current Land Use	***VACANT LAND***						
Title Deed number & date	**T39662/2001**						
Any restrictive conditions prohibiting application?	*Y*	**N**	*If Yes, list condition number(s).*				
Are the restrictive conditions in favour of a third party(ies)?	*Y*	**N**	*If Yes, list the party(ies).*				
Is the property encumbered by a bond?	Y	***N***	*If Yes, list Bondholder(s)?*				
Has the Municipality already decided on the application(s)?	*Y*	***N***	*If yes, list reference number(s)?*				

Any existing unauthorized buildings and/or land use on the subject property(ies)?	*Y*	***N***	*If yes, is this application to legalize the building / land use?*	*Y*	***N***
Are there any pending court case / order relating to the subject property(ies)?	*Y*	***N***	*Are there any land claim(s) registered on the subject property(ies)?*	*Y*	***N***

PART D: PRE-APPLICATION CONSULTATION

Has there been any pre-application consultation?	**Y**	N	*If Yes, please complete the information below and attach the minutes.*		
Official's name	**ILANE HUYSER & NAUDICA SWANEPOEL**	*Reference number*		*Date of consultation*	**03 SEPTEMBER 2025 & 01 OCTOBER 2025**

PART E: LAND USE APPLICATIONS IN TERMS OF SECTION 15 OF THE LAND USE PLANNING BY-LAW FOR GEORGE MUNICIPALITY & APPLICATION FEES PAYABLE

***Application fees that are paid to the Municipality are non-refundable and proof of payment of the application fees must accompany the application.**

BANKING DETAILS	
Name:	***George Municipality***
Bank:	***ABSA***
Branch no.:	***632005***
Account no.:	***01022220981***
Type:	***Cheque***
Swift Code:	***ABSAZAJJCPE-SORTCODE 632005***
VAT Registration Nr:	***4630193664***
E-MAIL:	***ronel@george.org.za***
****Payment reference**:*	**Erven , George**

PART F: DETAILS OF PROPOSAL

Brief description of proposed development / intent of application:

The application for Remainder Erf 464 George entails the following:

- ***TO REZONE IN TERMS OF SECTION 15 (2)(a) OF THE GEORGE LAND USE PLANNING BY-LAW 2023 TO PERMIT A TRANSPORT USE.***
- ***TO SUBDIVIDE IN TERMS OF SECTION 15 (2)(d) OF THE GEORGE LAND USE PLANNING BY-LAW 2023.***

PART G: ATTACHMENTS & SUPPORTING INFORMATION FOR LAND USE PLANNING APPLICATIONS

Please complete the following checklist and attach all the information relevant to the proposal. Failure to submit all information required will result in the application being deemed incomplete.

Is the following compulsory information attached?

Y	*N*	*Completed application form*		***Y***	*N*		*Pre-application Checklist (where applicable)*
Y	*N*	*Power of Attorney / Owner's consent if applicant is not owner*		***Y***	*N*		*Bondholder's consent*
Y	*N*	*Motivation report / letter*		***Y***	*N*		*Proof of payment of fees*
Y	*N*	*Full copy of the Title Deed*		***Y***	*N*		*S.G. noting sheet extract / Erf diagram / General Plan*
Y	*N*	*Locality Plan*		***Y***	*N*		*Site layout plan*

Minimum and additional requirements:

Y	*N*	***N/A***	*Conveyancer's Certificate*		***Y***	*N*	*N/A*	*Land Use Plan / Zoning plan*
Y	*N*	*N/A*	*Proposed Subdivision Plan (including street names and numbers)*		*Y*	*N*	***N/A***	*Phasing Plan*
Y	*N*	***N/A***	*Consolidation Plan*		*Y*	*N*	***N/A***	*Copy of original approval letter (if applicable)*
Y	*N*	***N/A***	*Site Development Plan*		*Y*	*N*	***N/A***	*Landscaping / Tree Plan*
Y	*N*	***N/A***	*Abutting owner's consent*		*Y*	*N*	***N/A***	*Home Owners' Association consent*
Y	*N*	***N/A***	~~*Copy of Environmental Impact Assessment (EIA) /*~~ ~~*Heritage Impact Assessment (HIA) /*~~		*Y*	*N*	***N/A***	*1 : 50 / 1:100 Flood line determination (plan / report)*

			~~*Traffic Impact Assessment (TIA) / Traffic Impact Statement (TIS) / Major Hazard Impact Assessment (MHIA) / Environmental Authorisation (EA) / Record of Decision (ROD)*~~ *(strikethrough irrelevant)*					
Y	*N*	***N/A***	*Services Report or indication of all municipal services / registered servitudes*		***Y***	*N*	*N/A*	*Required number of documentation copies* **2 copies**
Y	*N*	***N/A***	*Any additional documents or information required as listed in the pre-application consultation form / minutes*		*Y*	*N*	*N/A*	*Other (specify)*
PART H: AUTHORISATION(S) IN TERMS OF OTHER LEGISLATION								
Y	*N/A*	*National Heritage Resources Act, 1999 (Act 25 of 1999)*						*Specific Environmental Management Act(s) (SEMA)* *(e.g. Environmental Conservation Act, 1989 (Act 73 of 1989), National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004), National Environmental Integrated Coastal Management Act, 2008 (Act 24 of 2008), National Environmental Management: Waste Act, 2008 (Act 59 of 2008), National Water Act, 1998 (Act 36 of 1998)* *(strikethrough irrelevant)*
Y	*N/A*	*National Environmental Management Act, 1998 (Act 107 of 1998)*						
Y	N/A	*Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970)*						
Y	N/A	*Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)(SPLUMA)*			*Y*	***N/A***		
Y	N/A	*Occupational Health and Safety Act, 1993 (Act 85 of 1993): Major Hazard Installations Regulations*						
Y	N/A	*Land Use Planning Act, 2014 (Act 3 of 2014) (LUPA)*			*Y*	***N/A***	*Other (specify)*	
Y	N	*If required, has application for EIA / HIA / TIA / TIS / MHIA approval been made? If yes, attach documents / plans / proof of submission etc.*						
Y	**N**	*If required, do you want to follow an integrated application procedure in terms of section 44(1)of the Land-Use Planning By-law for George Municipality?*						

SECTION I: DECLARATION

I hereby wish to confirm the following:

1. That the information contained in this application form and accompanying documentation is complete and correct.
2. The Municipality has not already decided on the application.
3. I'm aware that it is an offense in terms of section 86(1)(d) to supply particulars, information or answers in an application, knowing it to be false, incorrect or misleading or not believing them to be correct.
4. I am properly authorized to make this application on behalf of the owner and (where applicable) copies of such full relevant Powers of Attorney/Consent are attached hereto.
5. I have been appointed to submit this application on behalf of the owner and it is accepted that correspondence from and notifications by the Municipality in terms of the by-law will be sent only to me as the authorised agent and the owner will regularly consult with the agent in this regard (where applicable).
6. That this submission includes all necessary land use planning applications required to enable the development proposed herein.
7. I confirm that the relevant title deed(s) have been read and that there are no restrictive title deed restrictions, which impact on this application, or alternatively an application for removal/amendment/suspension forms part of this submission.
8. I am aware of the status of the existing bulk services and infrastructure in the subject area and that I am liable for any possible development charges which may be payable as a result of the proposed development.

Applicant's signature:		Date:	9/10/2025
Full name:	Mark Job		
Professional capacity:	Professional Planner		
SACPLAN Reg. Nr:	A/1367/2010		

FOR OFFICE USE ONLY

Date received:		Received by:	
Receipt number:			
Date application complete			

ANNEXURES

Please <u>do not submit</u> these Annexure exemplars with the application form.

<u>Annexure A:</u> Exemplar of locality plan (consult guidelines for precise requirements)

<u>Annexure B:</u> Application submission checklist

<u>Annexure C:</u> Exemplar of typical layout plan (consult guidelines for precise requirements

<u>Annexure D:</u> Examples of required documents

Annexure 6:
ENVIRONMENTAL AUTHORISATION (10 NOVEMBER 2010)

DEPARTMENT of
ENVIRONMENTAL AFFAIRS
& DEVELOPMENT PLANNING
Provincial Government of the Western Cape

Directorate: Land Management (Region 1)
wroets@pgwc.gov.za
tel: +27 21 483 3633 fax: +27 21 483 3722
Utilitas Building, 1 Dorp Street,
P/Bag x9086, Cape Town, 8000
www.capegateway.gov.za

REFERENCE: **EG12/2/3/1-D2/11-1098/08**
ENQUIRIES: Dr W Roets
DATE OF ISSUE: 10 NOV 2010

Municipal Manager
George Municipality
PO Box 19
GEORGE
6530

Attention: Mr H Basson

Tel: (044) 801 9260
Fax: (044) 873 3862

Dear Sir

APPLICATION: **CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON ERF 464, GEORGE:**

With reference to your application, find below the environmental authorisation hereinafter referred to as the "environmental authorisation" ("EA") in respect of this application.

ENVIRONMENTAL AUTHORISATION

A. DESCRIPTION OF ACTIVITY:

The proposal entails the construction of a bus depot on a portion of remainder of Erf 464 which will not exceed 10 ha in size, in order to accommodate two components, namely: 1) parking space for approximately 200 buses, cleaning and maintenance facilities, fuel bay, offices and workshops, and 2) a trade school for the bus industry.

All the above proximate to the layout plan in Appendix A contained in the Environmental Impact Report (EIR) by Sharples Environmental Services.

The following activities are identified in Government Notice No. R386 of 21 April 2006:
Activity Numbers: **1k(i) & (ii), 15 and 16a.**
Activities Description:
Activity 1: The construction of facilities or infrastructure, including associated structures or infrastructure, for –
k the bulk transportation of sewage and water, including storm water, in pipelines with -
(i) an internal diameter of 0.36 metres or more;
(ii) or a peak throughput of 120 litres per second or more;

Activity: 15 The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.

Activity 16: The transformation of undeveloped, vacant or derelict land to –

(a) establish infill development covering an area of 5 hectares or more, but less than 20 hectares;

The following activities are identified in Government Notice No. R387 of 21 April 2006:

Activity Number: **3.**

Activity Description:

Activity 3: The construction of filling stations, including associated structures and infrastructure, or any other facility for the underground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin.

hereinafter referred to as "the activities"

B. LOCATION:

The bus depot will be located on a portion of the remainder of Erf 464, a currently undeveloped area west of Borchards, in the George Industrial area. The property is accessible via PW Botha Boulevard, which is part of the future George Mobility Strategy routing system. The depot will be located to the south of PW Botha Boulevard, border onto Pacaltsdorp Industrial area, and onto the northern side of the N2 National Road.

Co-ordinates:
Longitude (E): 22° 27' 27.35" Latitude (S): 33° 59' 15.46"
SG21 Digit code: C02700020000046400000

hereinafter referred to as "the property"

C. APPLICANT:

C/0 Mr H Basson
George Municipality
PO Box 19
GEORGE
6530
Tel: (044) 801 9260
Fax: (044) 873 3862

D. ENVIRONMENTAL ASSESSMENT PRACTITIONER:

C/O Kirstin Botha
Sharples Environmental Services
PO Box 9087
George
6530
Tel: (044) 873 4923
Fax: (044) 874 5953

E. SITE VISIT(S):

The site was visited on 29 October 2010 by Dr W Roets. Together with the information submitted in the application documentation (i.e. photographs and maps of the site) and relevant information contained in the Departmental information base, it was considered sufficient to provide adequate information on the nature of the receiving environment.

F. DECISION:

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2006 the Department hereby authorises the activities described above.

The applicant has applied for Activity 18 listed in Government Notice No. R386 of 21 April 2006, being: *"The subdivision of portions of land 9 hectares or larger into portions of 5 hectares or less."* but as the new Environmental Impact Assessment Regulations, 2010 came into effect on 02 August 2010 this activity is no longer listed anymore and is regarded as being withdrawn.

The granting of this environmental authorisation is subject to the conditions set out below.

G. CONDITIONS OF AUTHORISATION:

1. The activity, including site preparation, may not commence within 20 (twenty) days after receipt of this environmental authorisation. In the event that an appeal notice and subsequent appeal is lodged with the competent authority, the effect of this environmental authorisation will be suspended until such time as the appeal is decided.

2. One week's notice, in writing, must be given to the Directorate: Land Management (Region 1), (hereinafter referred to as "this Directorate"), before commencement of construction activities.

2.1. Such notice shall make clear reference to the site location details and reference number given above.
2.2. The said notice must also include proof of compliance with the following conditions described herein:
Conditions: 1, 6, 7 and 9.

3. The mitigation measures and recommendations as detailed in the Environmental Impact Report ("EIR") by Sharples Environmental Services must be adopted and implemented.

4. The proposed storm water management must be implemented as contained in the EIR and Environmental Management Programme (EMP), and must include the installation of the oil water separators (OWS) as contained in Appendix 10 of the EIR.

5. Should any heritage remains be exposed during excavations, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999)). Heritage remains uncovered or disturbed during earthworks must not be disturbed further until the necessary approval has been obtained from Heritage Western Cape.
5.1. If any archaeological remains (including but not limited to fossil bones and fossil shells, coins, indigenous and/or colonial ceramics, any articles of value or antiquity, marine shell heaps, stone artefacts and bone remains, structures and other built features, rock art and rock engravings) are discovered during construction they must immediately be reported to Heritage Western Cape and must not be disturbed further until the necessary approval has been obtained from Heritage Western Cape.
5.2. If any graves or unmarked human burials are discovered, they must be treated with respect and SAHRA must be notified immediately and must not be disturbed further until the necessary approval has been obtained from SAHRA. An archaeologist must be contracted to remove the remains at the expense of the developer.

6. The Environmental Management Programme ("EMP") submitted as part of the application for environmental authorisation must be amended. The contents of such an EMP must -
6.1. be implemented;
6.2. meet the requirements outlined in Section 24N (2) & (3) of the National Environmental Management Act, 1998 (Act no 107 of 1998, as amended) ("NEMA") and regulation 34 of the Environmental Impact Assessment Regulations 2006;
6.3. detail an integrated waste management approach that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate.

6.3.1. Any solid waste must be disposed of at a landfill licensed in terms of section 20 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) or the National Environmental Management: Waste Act (Act No. 59 of 2008).

6.4. incorporate the conditions of authorisation given in this Environmental Authorisation

6.5. address, but not be limited to, the demarcation of the site, the erection of camp site for construction teams, establishments of working and storage areas, environmental awareness training of employees, protection of flora, fauna, natural features and any archaeological material of significance that may be discovered, cultural issues (e.g. protection of archaeological artefacts), landscaping and revegetation of indigenous plants and trees erosion prevention methods, refuse and waste management, dust and noise control, effluent and storm water management, materials used, the handling, storage and transport of fertilizers or other hazardous materials, site rehabilitation and/or revegetation, fencing, fire prevention measures, the complete removal of all alien invasive plants and fire prevention measures, pollution control measures, monitoring and reporting, penalties, claims and damages.

6.6. translate mitigation measures contained in the EIR into measurable actions that can be included in a monitoring protocol with specific time frames;

6.7. specify reporting on the monitoring to enable verification of the effectiveness of the environmental management objectives and actions and to be able to respond to unforeseen events;

6.8. be included in all contract documentation for the construction phase of the development;

6.9. describe the level and type of competency required of the Environmental Control Officer, ("ECO");

6.10. define and allocate the roles and responsibilities of the ECO referred to above, and the Environmental Site Agent where applicable;

6.11. determine the frequency of site visits;

7. The holder of the authorisation must appoint a suitably experienced Environment Control Officer (or Site Agent where appropriate) for the construction phase of the development before commencement of any land clearing or construction activities to ensure that the mitigation/rehabilitation measures and recommendations referred to in this authorisation are implemented and to ensure compliance with the provisions of the EMP.

8. The holder of the authorisation must submit an Environmental Audit Report, ("audit report") to this Directorate (six months) after construction has been completed and also one year after the commencement of operation.

8.1. The audit report must indicate the date on which the construction was completed, and detail compliance with the conditions of this authorisation.

8.2. This Directorate may require remedial action should the audit report reflect that rehabilitation is inadequate.

8.3. If the audit report is not submitted, this Directorate may give 30 days written notice and may have such an audit undertaken at the expense of the applicant and may authorise any person to take such measures necessary for this purpose.

9. The applicant must in writing, within 12 (twelve) calendar days of the date of the decision on the application –

9.1. notify all registered interested and affected parties of –

9.1.1. the outcome of the application;

9.1.2. the reasons for the decision; and

9.1.3. the date of the decision;

9.2. inform all registered interested and affected parties of the appeal procedure provided for in Chapter 7 of the Regulations.

9.3. inform all registered interested and affected parties of the manner in which they can access the decision.

9.4. Advise all registered interested and affected parties that, should they wish to appeal, they must lodge a notice of intention to appeal with the Minister within 20 (twenty) days of date of the Department's decision and must submit their appeal within 30 (thirty) days after the lapsing of the 20 (twenty) days contemplated in regulation 60(1), for the lodging of the notice of intention to appeal.

9.5. Inform all registered interested and affected parties that the prescribed Notice of Intention to Appeal form and Appeal form are obtainable from the Minister's office at telephone number (021) 483 3721, or 483 3915, email jedevill@pgwc.gov.za or via the URL http://www.capegateway.gov.za/eadp.

9.6. Inform all registered interested and affected parties that should they wish to appeal, the appellant must serve on the applicant, within 10 (ten) days of having submitted the notice of intent to appeal with the Minister, a copy of the Notice of Intention to Appeal form as well as a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.

9.7. If the applicant should decide to appeal the decision, the applicant must-

9.7.1. lodge a notice of intention to appeal with the Minister, within 20 (twenty) days after the date of the decision.

9.7.2. submit the appeal within 30 (thirty) days after the lapsing of the 20 (twenty) days contemplated in regulation 60(1), for the lodging of the notice of intention to appeal.

9.7.3. within 10 (ten) days of having lodged the notice of intention to appeal, provide each person and organ of State registered as an interested and affected party in respect of the application, with –

9.7.3.1. a copy of the Notice of Intention to appeal form;

9.7.3.2. a notice indicating where and for what period the appeal submission will be made available for inspection by such person or organ of State, on the day of lodging it with the Minister, and that a responding statement may be made on the appeal within 30 (thirty) days from the date the appeal submission was lodged with the Minister. A person, organ of state or applicant who submits a responding statement in terms of regulation 63(1) must within 10 (ten) days of having submitted the responding statement, serve a copy of the statement on the appellant.

10. The holder of the authorisation shall be responsible for ensuring compliance with the conditions by any person acting on his behalf, including but not limited to, an agent, sub-contractor, employee or any person rendering a service to the holder of the authorisation.

11. Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.

12. The holder of the authorisation must notify this Directorate and any other relevant authority, in writing, within 24 hours thereof if any condition of this authorisation is not adhered to.

13. A copy of this authorisation must be kept at the property where the activities will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.

14. Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/ or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.

15. Non-compliance with a condition of this authorisation may result in the withdrawal of the authorisation and may render the holder liable for criminal prosecution.

16. This Department must be notified, within 30 days thereof, of any change of ownership and/or project developer. A request for the transfer of the rights and

obligations contained in this environmental authorisation must be submitted in the following way:

16.1. The current holder of the environmental authorisation must submit an original signed letter to the Department stating that he/she wish the rights and obligations contained in this environmental authorisation to be transferred, provide the Department with (a) confirmation that the environmental authorisation is still in force (i.e. validity period have not yet expired or the activity(ies) was lawfully commenced with), (b) the contact details of the person to whom the rights and obligations are to be transferred, and (c) the reasons for the requested transfer.

16.2. The person to whom the rights and obligations are to be transferred must also submit an original signed letter to the Department (a) accepting the rights and obligations contained in this environmental authorisation and (b) must indicate that he/she has the ability to implement the mitigation measures and to comply with the conditions of authorisation.

If the transfer is found to be appropriate by the Department, the Department will issue a letter confirming the transfer of the rights and obligations contained in this environmental authorisation.

17. Departmental officials shall be given access to the property referred to in B above for the purpose of assessing and/or monitoring compliance with the conditions contained in this environmental authorisation, at all reasonable times.

18. Only the activity which is authorised may be carried out at the property indicated above.

19. Notwithstanding this authorisation, the holder of the authorisation must still comply with any other statutory requirements that may be applicable to the undertaking of the activity.

20. This activity must commence within a period of **3 years** from the date of issue of this EA. If commencement of the activities does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.

H. REASONS FOR THE DECISION:

All the following information that was available to the Department was taken into account in the Department's consideration of the application -

a) The information contained in the Environmental Impact Report ("EIR") by Sharples Environmental Services;

b) The comments received from interested and affected parties as included in the EIR and response documentation;

c) Relevant information contained in the Departmental information base including -

- Guideline for determining the scope of specialist involvement in EIA processes, June 2005.
- Guideline for the review of specialist input in the EIA process, June 2005.
- Guideline for involving biodiversity specialists in the EIA process, June 2005.
- Guideline for involving heritage specialists in the EIA process, June 2005.
- Guideline for environmental management plans, June 2005.
- Guideline on Alternatives, May 2009
- Guideline on Public Participation, May 2009

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

A summary of the issues which, in the Department's view, were of the most significance is set out below.

1. Environment:

The proposed construction will occur within Erf 464 which is currently an undeveloped area west of Borchards in the George Industrial sector. The land slopes gently in an easterly direction. The site envisaged for the Bus Depot is highly transformed, consisting of mostly pastoral grasses like *Eragrostis superba, Eragrostis curvula, Themeda triandra, Lolium perrenne, Paspalum dilatatum, Setaria sphacelata* and *Helicotrichon tugidulum*, as well as the alien Kikuyu grass (*Pennisetum clandestinum*). The undulating plains are also infested with alien vegetation such as black wattle (*Acacia mernsii*) on the sloping areas. A small, localized drainage area, dominated by one *Restio* species and exhibiting no obvious additional diversity, also occurs on site.

The sides of the plateau slopes steeply towards the natural drainage lines on the north-eastern and south-western perimeters of the proposed property. The site shows evidence of former vegetation clearing and ploughing and is currently being used for dumping of general waste as well as serving as a thoroughfare for pedestrians between the industrial area and Borchard's residential area. According to the EIR the site has a low sensitivity value.

2. Need and Desirability:

According to the EIR the transformation of the public transport system and the provision of associated infrastructure, such as the Bus Depot, were identified as a key component of realizing the improvement of the transportation situation in George, which would ultimately contribute to improved social functioning. Central to the provision of a scheduled public transport service would be a bus depot that is used to park or store vehicles not required for scheduled operations.

The George Mobility Strategy and associated infrastructure, such as the proposed Bus Depot, form part of these forward planning initiatives aimed at

improving service provision to the general public with specific regard to an improved public transport infrastructure and the implementation of scheduled and predetermined routed public transport. It is expected that this will lead to improved social integration, especially between the poorer residential areas to employment, education and other social activity areas. All areas of George (urban and rural) will be serviced, while the quality of service delivery is aimed at attracting all segments of the community.

3. Socio-economic:

According to the EIR the population growth per annum for George is around 4.6% for the period 1996 to 2001, which is much higher than the average population growth rate of 2.7% for the Western Cape Province. Estimates put the 2015 population in George at between 200 000 - 240 000 people. Based on the 2001 census data, in the greater George area, the majority of the population (50%) is coloured people, followed by black people (27%) and then white people (22%).

In terms of access to modes of transportation, most of the farm owners on the outskirts of George have access to private transport, including those of the luxury residential and golf estates further south. Residents of Herold's Bay, further southwest of George also generally have access to private transport. A far lower proportion of residents from Pacaltsdorp and especially Thembalethu have access to private transport and many currently rely on taxis, since the public transport system is virtually non-existent i.e. no public bus or rail routes exist to service these areas.

The areas that will mainly be affected, from an economic perspective, by the proposed Bus Depot, are the areas of Borcherds, Conville, Parkdene and Thembalethu, which are poorer neighbourhoods. This is reflected in the demography of the relevant population groups in these areas. The greatest challenge lies in overcoming poverty and racial and economic segregation by addressing unemployment.

George's location along the N2 National Road, between Cape Town and Port Elizabeth as well as its position at the junction inland to Oudtshoorn along the N9/N12 means that George is ideally positioned to serve as a regional centre for trade and distribution. The economy is further strengthened by the in-migration of investors and businesses from further away, wishing to cater to the growing population. With a growing economy and an influx of people more pressure will be placed on roods infrastructure and public transport. The result is congestion, which could have a potential impact on economic growth. Accordingly, increased road usage and problems associated with this can only be addressed by improving the road network and the public transport system.

4. Cultural historic:

Following an investigation of the nature of the proposed development the EIR concluded that the overall benefits to local communities in terms of the sustainable

development of the greater George area, it was not considered necessary to undertake further heritage investigations for the proposal. Heritage Western Cape have issued a record of decision in this regard, attached in Appendix 6 of the EIR.

5. **Policy: Regional/planning context:**
The area (Erf 464) where the bus depot will be located is surrounded by urban development, and earmarked in the George Spatial Development Framework (GSDF) and the George East Spatial Development Plan (GSE SDP) for a mixture of uses such as the medium and low income housing, commercial and industrial uses. It is situated along PW Botha Boulevard which is a major distributor road through the industrial area, and which is planned to be extended to join the road to the airport. A new main access road to Pacaltsdorp, being an extension of Rand Street, will run through the area.

Erf 464 is currently zoned undetermined and the bus depot will be sited on a portion of remainder of the Erf.

6. **NEMA Principles/NEMA section 24(7):**
The National Environmental Management Principles (set out in section 2 of the National Environmental Management Act ("NEMA"), 1998 (Act No. 107 of 1998), which apply to all the actions of all organs of state, serve as a guideline by reference to which any organ of state, must exercise any function when taking any decision, and must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment. The NEMA Principles provides for *inter alia*:
   - The effects of decisions on all aspects of the environment to be taken into account;
   - The consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
   - the co-ordination and harmonisation of policies, legislation and actions relating to the environment; and
   - the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures.

All these aspects have been addressed in this proposal.

7. **Cumulative effects of the activity:**
The proposed development will have a significant positive cumulative impact in terms socio-economic spin-offs in the local economy of George and the surrounding area. This will include indirect and disposable income, indirect job and skills opportunities which will be created. The proposed development will also contribute towards services provision and bulk services infrastructure by the Local Authority.

The increased stormwater that will be generated on the parking areas may result in erosion of the drainage lines on the site. However, this impact can be effectively mitigated through the proposed mitigation measures contained in the EIR.

The fuel bay may cause pollution of ground- and surface water, but this will be minimized by the proposed mitigation measures and the findings of the geohydrological assessment.

8. Alternatives:

According to the EIR two alternative sites were assessed. However, the required size of the site consisting of both the parking space for ± 200 busses with associated infrastructure and the training facility will be 5-10 ha and made the preferred site the better option. A land-use alternative in terms of the building footprint occupied is that the Bus Depot will only consist of the parking space with associated infrastructure ensuring that no more than 5ha of space is occupied. Although this alternative will have a smaller footprint, it may pose problems with regards to training requirements and determining when and where such training could occur. This could pose to be a setback for the George Mobility strategy as a whole.

Site Alternative B is situated to the north-east of the preferred alternative directly across the road from businesses. This alternative site currently has no access point and its proximity to businesses across the road could result in traffic congestion. The topography on this site is also very steep, and would not make constructing parking space for ±200 busses and the required associated infrastructure viable.

9. Public Participation:

The public participation process included all registered interested and affected parties, relevant government departments, CapeNature and the local authority. An advertisement was also placed in the local newspaper and site notices were put up to inform all interested and affected parties on the proposal and process to be followed. All issues raised have been adequately addressed and concerns by interested and affected parties were favourable addressed and recorded in the EIR.

The following authorities were consulted: CapeNature; Department of Health; Relevant Departments within Eden District Municipality, Department of Water Affairs; Department of Fisheries and Forestry, Relevant Local Authority Departments and relevant councillors.

In view of the above, this Directorate is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental

Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels. The application is accordingly granted.

I. APPEAL:

Appeals must comply with the provisions as outlined in Chapter 7 of the Regulations.

If the applicant should decide to appeal, the applicant must, *in terms of*, regulation 60(1), lodge a notice of intention to appeal with the Minister, within 20 (twenty) days after the date of the decision, and must within 10 (ten) days of having submitted the notice contemplated in regulation 60(1), provide each person and organ of State registered as an interested and affected party in respect of the application with a copy of the Notice of Intention to Appeal; a notice indicating where and for what period the appeal submission will be made available for inspection by such person or organ of State on the day of lodging it with the Minister, and indicate that a responding statement may be made on the appeal within 30 (thirty)days from the date the appeal submission was lodged with the Minister.

A person, organ of state or applicant who submits a responding statement in terms of regulation 63(1) must within 10 (ten) days of having submitted the responding statement, serve a copy of the statement on the appellant.

If the applicant should decide to appeal, the applicant must submit the appeal within 30 (thirty) days after the lapsing of the 20 (twenty) days contemplated in regulation 60(1), for the lodging of the notice of intention to appeal.

Should any other person, or an interested and affected party, decide to appeal, they must, in terms of, regulation 60(1), lodge a notice of intention to appeal with the Minister, within 20 (twenty) days after the date of the decision. An appeal must be submitted within 30 (thirty) days after the lapsing of the 20 (twenty) days contemplated in regulation 60(1).

The appellant must provide the applicant, within 10 days of having lodged the notice contemplated in regulation 60(1), with a copy of the notice referred to in regulation 60(1), and a notice indicating where and for what period the appeal submission will be available for inspection by the applicant. A responding statement may be made on the appeal within 30 (thirty) days from the date the appeal submission was lodged with the Minister.

The prescribed Notice of Intention to Appeal form and Appeal form are obtainable from the Minister's office, as well as assistance regarding the appeal processes, at telephone number (021) 483 3721, or 483 3915, email jedevill@pgwc.gov.za or via the URL http://www.capegateway.gov.za/eadp.

Department of Environmental Affairs & Development Planning
Directorate: Land Management (Region 1)

All Notice of Intention to Appeal and Appeal forms must be submitted by means of one of the following methods:

By post: Western Cape Ministry of Local Government, Environmental Affairs and Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174; or

By hand: Attention: Mr. Jaap de Villiers
9th floor Utilitas Building
1 Dorp Street
CAPE TOWN
8001

Provincial Government, Local Authority or committees appointed in terms of the conditions of the application or any other public authority or organisation shall not be held responsible for any damages or losses suffered by the developer or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the developer with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Your interest in the future of our environment is greatly appreciated.

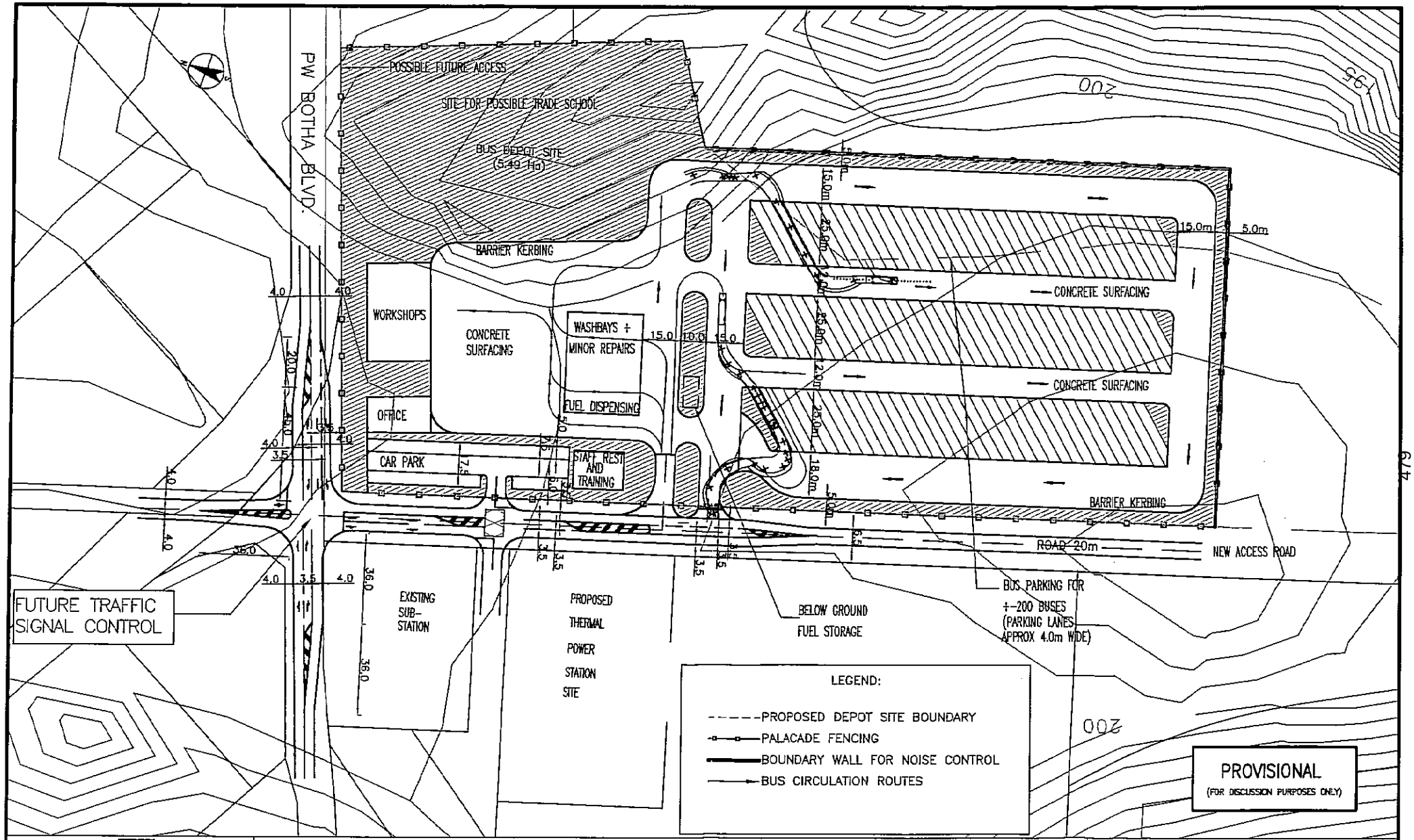
Yours faithfully

AYUB MOHAMED
DIRECTOR: LAND MANAGEMENT (REGION 1)

DATE: 10/11/2010

Copied to: George Municipality Fax: 044 873 3862
Sharples Environmental Services Fax: 044 874 5953
DEA&DP (George office) Fax: 044 874 2423

EG12/2/3/1-D2/11-1098/08



NINHAM SHAND
CONSULTING SERVICES CAPE TOWN

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GEORGE MOBILITY STRATEGY

PROPOSED PERMANENT BUS DEPOT ON PORTION OF ERF 464 : GEORGE

SCALE
1:2 000
A4 DRAWING

DRAWING No
FIGURE 2.1

Annexure 7:
ENVIRONMENTAL AUTHORISATION (04 SEPTEMBER 2013)

Western Cape Government
Environmental Affairs and Development Planning

Land Management
(Region 3)

REFERENCE: 16/3/1/5/D2/19/0014/13
ENQUIRIES: Shireen Pullen
DATE OF ISSUE: 2013 -09- 04

The Municipal Manager
George Municipality
PO Box 19
GEORGE
6530

Attention: Mr. H. Basson

Tel: (044) 801 9260
Fax: (044) 874 3862

APPLICATION FOR AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ("EA") ISSUED ON 10 NOVEMBER 2010 FOR THE CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON ERF 464, GEORGE

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998, as amended) and the Environmental Impact Assessment Regulations, 2010 ("NEMA EIA Regulations) the competent authority herewith grants the amendment of the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, find below the Environmental Authorisation in respect of this application.

ENVIRONMENTAL AUTHORISATION

A. DECISION

1. By virtue of the powers conferred on it in terms of Regulation 42 of the Environmental Impact Assessment Regulations, 2010, the Department has decided to amend the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08 as follows –

   1.1 Condition 20 of the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08 must read as follows:

   "This activity must commence within a period of **7 years** from the issue of this EA. If commencement of the activities does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken."

1.2 All the conditions contained in the Environmental Authorisation issued on 10 November 2010 still remain in force.

B. REASONS FOR THE DECISION:

In reaching its decision, the Department took, *inter alia*, the following into consideration:

1. The application is for a non-substantive amendment to the environmental authorisation.
2. The application is for the amendment of the validity period of the Environmental Authorisation issued on 10 November 2010 and is therefore deemed to be a non-substantial amendment to the environmental authorisation.
3. The environment and the rights and interests of other parties are not likely to be adversely affected by the decision to amend the validity period of the environmental authorisation.
4. The application to amend the authorisation will not result in any significant changes to the receiving environment and the anticipated impacts will remain the same, as determined for the previous authorisation.
5. The applicant motivates that George Municipality could not commence with the development to date as they do not have sufficient financial resources to implement the construction of the facility. According to the applicant, the infrastructure for the public transport service is funded mainly from National and Provincial grant funding and infrastructure development has to be phased in as and when funds become available.
6. Should this amendment not be granted, the environmental authorisation will lapse and the transport situation in George will not improve.
7. All information presented to the Department was taken into account in the Department's consideration of the application.

In view of the above, this Department is satisfied that, subject to compliance with the conditions contained in the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels.

C. CONDITIONS

1. The applicant must, in writing, within **12 (twelve)** calendar days from the date of the Department's decision –
   - 1.1 notify all registered interested and affected parties of –
     - 1.1.1 the outcome of the application;
     - 1.1.2 the reasons for the decision;
     - 1.1.3 the date of the decision; and
     - 1.1.4 the date of issue of the decision;
   - 1.2 draw the attention of all registered interested and affected parties to the fact that an appeal may be lodged against the decision in terms of Chapter 7 of the Environmental Impact Assessment Amendment Regulations, 2010 detailed in section D below;
   - 1.3 draw the attention of all registered interested and affected parties to the manner in which they may access the decision, and
   - 1.4 publish a notice in the newspapers contemplated in regulation 54(2)(c) and (d), and which newspaper was used for the placing of advertisements as part of the Public Participation Process, that –

1.4.1 informs all interested and affected parties of the decision;
1.4.2 informs all interested and affected parties where the decision can be accessed; and
1.4.3 informs all interested and affected parties that an appeal may be lodged against the decision in terms of Chapter 7 of the Regulations;

2. One week's written notice must be given to the Directorate: Land Management (Region 3), before continuation of construction activities. The said notice must also include proof of compliance with Condition 1 described in Section C of this Addendum to Environmental Authorisation.

D. APPEALS:

Appeals must comply with the provisions contained in Chapter 7 of the Environmental Impact Assessment Regulations, 2010.

1. An appellant must –
   1.1. submit a notice of intention to appeal to the Minister, within 20 (twenty) calendar days of the date of the decision;
   1.2. submit the appeal within 30 (thirty) calendar days after the lapsing of the 20 (twenty) calendar days contemplated in regulation 60(1), for the submission of the notice of intention to appeal; and
   1.3. within 10 (ten) calendar days of having lodged the notice of intention to appeal, provide each person and organ of state registered as an interested and affected party in respect of the application, or the applicant, with –
      1.3.1. a copy of the notice of intention to appeal form; and
      1.3.2. a notice indicating where and for what period the appeal submission will be made available for inspection by such person, organ of state, or applicant, on the day of lodging it with the Minister, and that a responding statement may be made on the appeal within 30 (thirty) calendar days from the date the appeal submission was lodged with the Minister.

2. A person, organ of state or applicant who submits a responding or answering statement in terms of regulation 63 must within 10 (ten) calendar days of having submitted the responding or answering statement, serve a copy of the statement on the other party.

3. If the person, organ of state or applicant fails to meet a timeframe with respect to the requirements as detailed above, the person, organ of state or applicant must immediately submit a written explanation to the Ministry providing a concise explanation for the non-compliance.

4. All notice of intention to appeal and appeal forms must be submitted by means of one of the following methods:

By post: Western Cape Ministry of Local Government, Environmental Affairs and Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174; or
Or By hand: Attention: Mr Jaap de Villiers (Tel: 021-483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

A prescribed notice of intention to appeal form and appeal form as well as assistance regarding the appeal processes is obtainable from the office of the Minister at: Tel. (021) 483 3721, E-mail jaap.deVilliers@westerncape.gov.za or URL http://www.westerncape.gov.za/eadp

E. DISCLAIMER

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

Your interest in the future of our environment is appreciated.

Yours faithfully

MR. KOBUS MUNRO
DIRECTOR: LAND MANAGEMENT (REGION 3)

DATE OF DECISION: 3·9·2013

Copy: Mr. S. Kleinhans (Sharples Environmental Services cc) Fax: (044) 874 5953

Annexure 8:
ENVIRONMENTAL AUTHORISATION (20 OCTOBER 2020)

Department of Environmental Affairs and Development Planning
Development Management (Region 3)
Shireen Pullen@westerncape.gov.za
Tel: +27 44 805 8600
Private Bag X6509, George, 6530
3rd Floor, Rentzburghof Building, Courtenay Street, George, 6529

REFERENCE: 16/3/3/5/D2/0006/20
ENQUIRIES: Shireen Pullen
DATE OF ISSUE: **20 OCTOBER 2020**

The Municipal Manager
George Municipality
PO Box 19
GEORGE
6530

Attention: Ms. N. Gqaleni

Tel: (044) 801 9038
Email: Ngqaleni@george.gov.za

APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): APPLICATION FOR AMENDMENT OF THE ENVIRONMENTAL AUTHORIZATION ("EA") ISSUED ON 10 NOVEMBER 2010 FOR THE CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON ERF 464, GEORGE

With reference to your application for the amendment of the environmental authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, find below the amendment to the Environmental Authorisation in respect of this application.

ADDENDUM TO ENVIRONMENTAL AUTHORISATION

A. DECISION

1. By virtue of the powers conferred on it in terms of Regulation 30 of the Environmental Impact Assessment Regulations, 2014 (as amended), the Department has decided to amend the Environmental Authorization issued issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, as follows –

   1.1 Condition 20 of the environmental authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, must read as follows:

   "The activities must commence on or before **4 September 2025**. If commencement of the activities does not occur within this period, the authorisation lapses and a new application for environmental authorisation must be submitted and authorisation be obtained, before the activity may be undertaken."

*The development's construction phase must be concluded within **three (3) years** from the date on which the first listed activity is commenced with"*

2. All other information contained in the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, remains unchanged and is still in force.

B. REASONS FOR THE DECISION:

In reaching its decision, the Department took, *inter alia*, the following into consideration:

1. The application is for a non-substantive amendment to the Environmental Authorisation.

2. The environment and the rights and interests of other parties are not likely to be adversely affected by this decision to amend the Environmental Authorisation.

3. The application for amendment is only for the extension of the validity period and the fact that the approved development will not change in any other way, it is understood that the level and nature of the impacts will remain unchanged.

4. The motivation submitted by the applicant, which explained the reasons for the delay in implementing the EIA listed activities states that the Municipality had budget constraints and unavailability of grant funding. According to the applicant, the infrastructure for the public transport service is funded mainly from National and Provincial grant funding and infrastructure development has to be phased in as and when funds become available.

5. The fact that the facility is needed to provide an essential public transport service to the people living in George. Should this amendment not be granted, the environmental authorisation will lapse and the transport situation in George will not improve.

6. All the relevant information presented to this Department, which formed part of the application for amendment.

C. CONDITIONS

1. The applicant must, in writing, within **14 (fourteen)** calendar days from the date of the Department's decision –
   1.1 notify all registered interested and affected parties registered in the previous EIA process of –
      1.1.1 the outcome of the application;
      1.1.2 the reasons for the decision;
      1.1.3 the date of the decision; and
      1.1.4 the date of issue of the decision;

   1.2 draw the attention of all registered interested and affected parties registered in the previous EIA process to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, 2014 (as amended) in section D below;

   1.3 draw the attention of all registered interested and affected parties registered in the previous EIA process to the manner in which they may access the decision.

2. The holder of the environmental authorisation must within thirty (30) calendar days of the issue of this amendment decision, provide the competent authority with written proof of compliance with condition 1 above.

D. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations 2014 (as amended).

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

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

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

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

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

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

    By post: Western Cape Ministry of Local Government, Environmental Affairs and Development Planning
    Private Bag X9186
    CAPE TOWN
    8000

    By facsimile: (021) 483 4174; or

    By hand: Attention: Mr Marius Venter (Tel: 021 483 3721)
    Room 809
    8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

    Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement

and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to DEADP.Appeals@westerncape.gov.za.

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

E. DISCLAIMER

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

Your interest in the future of our environment is appreciated.

Yours faithfully



MR. GAVIN BENJAMIN
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 3)
DATE OF DECISION**: 20 OCTOBER 2020**

Annexure 9:
ENVIRONMENTAL AUTHORISATION (11 JULY 2025)

Western Cape Government

Department of Environmental Affairs and Development Planning
Shireen Pullen
Directorate: Development Management, Region 3
Shireen.Pullen@westerncape.gov.za | Tel: 044 814 2021
DEADPEIAadmin.George@westerncape.gov.za | Tel: 044 814 2006

REFERENCE: 16/3/3/5/D2/11/0010/25
NEAS REFERENCE WCP/EIA/AMEND/0000960/2025
DATE OF ISSUE: **11 July 2025**

ADDENDUM TO ENVIRONMENTAL AUTHORISATION

APPLICATION FOR THE AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION (REFERENCE: EG12/2/3/1-D2/11-1098/08, ISSUED ON 10 NOVEMBER 2010) FOR THE CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON A PORTION OF ERF 464, GEORGE

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

A. DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants** the amendment of the Environmental Authorisation issued on 10 November 2010 (Ref. No. EG12/2/3/1-D2/11-1098/08) in terms of Part 1 of Chapter 5 of the EIA Regulations, 2014 (as amended).

The Environmental Authorisation issued on 10 November 2010, Ref. No. EG12/2/3/1-D2/11-1098/08 (hereinafter referred to as the "*original EA (as amended))*" is amended as set out below:

1. Section G: Condition 20 of the original EA (as amended) is substituted for the following:

"*20. This Environmental Authorisation is granted for the period from date of issue until **04 September 2028** (validity period), during which period the Holder must ensure that the—*
(a) physical implementation of the authorised listed activities is started with and concluded by the date stipulated for the non-operational aspects;
(b) construction monitoring and reporting requirements are undertaken and submitted to the Competent Authority in time to allow said authority to process such documents timeously;
(c) post construction rehabilitation and monitoring requirements is undertaken and completed; and
(d) environmental auditing requirements are complied with; and that such auditing is finalised in time to allow the competent authority to be able to process the environmental audits timeously within the specified validity period.

Further to the above, the Environmental Authorisation is subject to the following:
20.1. The Holder must start with the physical implementation of all the authorised listed activities prior to 04 September 2026.

Failing which, this Environmental Authorisation shall lapse, unless the Environmental Authorisation is amended in accordance with the relevant process contemplated in the Environmental Impact Assessment Regulations promulgated under the National Environmental Management Act, 1998 (Act no. 107 of 1998)."

2. All other information and conditions contained in the Environmental Authorisation issued on 10 November 2010 (Ref. No. EG12/2/3/1-D2/11-1098/08), remain unchanged and are still in force.

B. REASONS FOR THE DECISION:

In reaching its decision, the Department took, *inter alia*, the following into consideration:

1. The information contained in the application for amendment dated 28 May 2025 and received by this Department on 3 June 2025, including all the relevant information presented to this Department, which formed part of the application for amendment.

2. The Environmental Authorisation issued on 10 November 2010 (Ref. No. EG12/2/3/1-D2/11-1098/08) and subsequent amendments thereof listed as follows:

   2.1 The addendum to the EA issued by this Department on 04 September 2013 (Ref. No.16/3/1/5/D2/19/0014/13)

   2.2 The addendum to the EA issued by this Department on 20 October 2020 (Ref. No. 16/3/3/5/D2/0006/20)

3. The application for amendment in terms of Part 1 of Chapter 5 of the EIA Regulations, 2014 (as amended) entailed a change to the date of commencement specified in Condition 20 of the original EA (as amended) from 4 September 2025 to 4 September 2026.

4. The proposed amendment to the date of commencement will not change the date on which the activity is supposed to have been concluded.

   Whereas the original EA (as amended on 20 October 2020) required that the development's construction phase be concluded within three (3) years from the date on which the first listed activity would be commenced with, but the last day for such commencement was specified as 4 September 2025. The validity period of the original EA (as amended on 20 October 2020) is reckoned to be 4 September 2028.

   The Applicant has indicated that even if the date on which the activities must be commenced with is moved back 12-months (i.e., 4 September 2026), the authorised activities can still be concluded within the validity period which would end on 4 September 2028.

5. The Applicant has motivated that: "*Due to the age of the EA, a freshwater assessment and Water Use License Application investigation was not undertaken and the mitigation measures from that report will be incorporated into the Amended Environmental Management Programme (EMPr) which will be submitted for approval prior to commencement of activities on site. Therefor the applicant requires more time.*"

6. The date on which the activities must be concluded (i.e., 4 September 2028) has also been inserted in Condition 20 as contemplated in Regulation 26(d) of the EIA Regulations, 2014.

7. The application for amendment will not change the scope of the original EA (as amended).

8. The proposed amendment will not result in an increased level or change in the nature of impact where such level or change in nature of impact was not assessed and included in the initial application for Environmental Authorisation.

9. The amendment does not, on its own, constitute a listed activity. The listed activities authorised in the original EA (as amended) are similarly listed in terms of the EIA Regulations, 2014 (as amended).

10. The proposed amendment will not result in the validity period of the Environmental Authorisation being extended. In which case the process to amend the environmental authorisation contemplated in Regulation 32 must be followed.

11. The environment and the rights and interests of interested and affected parties ("I&APs") will not be adversely affected by the decision to amend the original EA / original EA (as amended).

C. CONDITIONS

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

   1.1. notify all registered Interested and Affected Parties ("I&APs") previously registered of—
      1.1.1. the decision reached on the application;
      1.1.2. the reasons for the decision;
      1.1.3. the date of the decision; and
      1.1.4. the date when the decision was issued.

   1.2. draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2025 (as amended) detailed in Section D below;

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

   1.4. provide the registered I&APs with the:
      1.4.1. name of the Holder (entity) of this Environmental Authorisation,
      1.4.2. name of the responsible person for this Environmental Authorisation,
      1.4.3. postal address of the Holder,
      1.4.4. telephonic and fax details of the Holder,
      1.4.5. e-mail address, if any, of the Holder,
      1.4.6. contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the National Appeals Regulations, 2025.

2. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notified the registered I&Ps of this decision.

3. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

D. APPEALS

Appeals must comply with the *National Appeal Regulations, 2025 (Government Notice No. R. 5985 in Government Gazette No. 52269 of 13 March 2025)*. Please take note the provisions of Regulation 1(2) and 1(3) of the *National Appeal Regulations, 2025* when calculating the period of days.

1. The Holder (applicant) of this decision must submit an appeal to the Appeal Administrator, and any registered Interested and Affected Parties (I&AP's) and the decision maker (Competent Authority who issued the decision) within **20 calendar** days from the date this decision was sent by the decision maker.

2. The I&AP's (NOT the holder of this decision) must submit an appeal to the Appeal Administrator, the Holder (applicant) of the decision and the decision maker (Competent Authority who issued the decision) within **20 calendar days** from the date this decision was sent to the registered I&AP's by the Holder (applicant) of the decision.

3. The Holder (applicant) of the decision must—

   3.1. notify all registered I&AP's and affected organs of state of any appeal received, and make the appeal available to them, within **5 calendar days** after the 20-day appeal period ends.

   3.2. Submit proof of this notification to the Appeal Administrator within 5 calendar days after sending the last notification.

4. All appeals submitted must:

   4.1. be in writing in the Appeal Form obtainable from the Departmental website;

   4.2. include supporting documents referred to in the appeal; and

   4.3. include proof of payment of the prescribed non-refundable appeal fee, if prescribed.

5. The applicant, where applicable, the decision-maker, or any person notified under regulation 4 of the *National Appeal Regulations, 2025* may submit a Responding Statement within **20 calendar days** from the date they received the appeal, in the form obtainable from the Department website to the Appeal Administrator and to the appellant, where the appellant is not the applicant.

6. Appeals, Responding Statements and supporting documents must be submitted to the Appeal Administrator by means of one of the following methods:

   6.1. By e-mail: DEADP.Appeals@westerncape.gov.za

   6.2. By **hand** where that person submitting an appeal does not hold an electronic mail account:
   Attention: Mr Marius Venter
   Room 809, 8th Floor Utilitas Building,
   1 Dorp Street, Cape Town, 8001

Note:
You are also requested to submit an electronic copy (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Administrator via e-mail or to the address listed above.

A prescribed appeal form, responding statement form as well as assistance regarding the appeal processes, is obtainable from the relevant website of the appeal authority at URL: http://www.westerncape.gov.za/eadp or the office of the Minister at:
Tel.: (021) 483 3721; or
E-mail: DEADP.Appeals@westerncape.gov.za

Documents to be submitted to the decision-maker (*i.e.*, the Competent Authority that issued the decision) at: Gavin.Benjamin@westerncape.gov.za; and copied to DEADPEIAadmin.George@westerncape.gov.za

E. DISCLAIMER

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

Your interest in the future of our environment is appreciated.

Yours faithfully

Gavin Benjamin

Digitally signed by Gavin Benjamin
Date: 2025.07.11 08:54:12 +02'00'

_____

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 3)
WCG: DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

DATE OF DECISION: **11 JULY 2025**

FOR OFFICIAL USE ONLY:

ENVIRONMENTAL AUTHORISATION (RECORD OF DECISION)

REFERENCE NUMBER:	**EG12/2/3/1-D2/11-1098/08**
DATE OF ISSUE:	**10 November 2010**
EA ADDENDUM #1REFERENCE NUMBER:	**16/3/1/5/D2/19/0014/13**
DATE OF ISSUE:	**04 September 2013**
EA ADDENDUM #2 REFERENCE NUMBER:	**16/3/3/5/D2/0006/20**
DATE OF ISSUE:	**20 October 2020**
CASE OFFICER:	Ms. Shireen Pullen | Shireen.Pullen@westerncape.gov.za
EA ADDENDUM #3 REFERENCE NUMBER:	**16/3/3/5/D2/11/0010/25**
NEAS REFERENCE	WCP/EIA/AMEND/0000960/2025
DATE OF ISSUE:	**This decision**
CASE OFFICER:	Ms. Shireen Pullen | Shireen.Pullen@westerncape.gov.za

Western Cape Government

Department of Environmental Affairs and Development Planning
Shireen Pullen
Directorate: Development Management, Region 3
Shireen.Pullen@westerncape.gov.za | Tel: 044 814 2021
DEADPEIAadmin.George@westerncape.gov.za | Tel: 044 814 2006

REFERENCE: 16/3/3/5/D2/11/0010/25
DATE OF ISSUE: **11 July 2025**

The Municipal Manager
George Municipality
PO Box 19
GEORGE
6530

Attention: Mr.J. Koegelenberg Email: jkoegelenberg@george.gov.za

NOTICE OF DECISION: APPLICATION FOR AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION (REFERENCE NO: EG12/2/3/1-D2/11-1098/08, ISSUED ON 10 NOVEMBER 2010) FOR THE CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON A PORTION OF ERF 464, GEORGE

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** the amendment to the Environmental Authorisation issued on 10 November 2010 (reference no.: EG12/2/3/1-D2/11-1098/08), attached herewith, together with the reasons for the decision.

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

3. Your attention is drawn to Chapter 2 of the National Appeal Regulations, 2025, which prescribes the appeal procedure to be followed. This procedure is summarized in the attached addendum to the Environmental Authorisation.

Your interest in the future of our environment is appreciated.

Yours faithfully

Gavin Benjamin
Digitally signed by Gavin Benjamin
Date: 2025.07.11 08:53:50 +02'00'

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 3)
WCG: DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

Copied to:
Mr. Michael Bennett Sharples Environmental Services cc Email: michael@sescc.net

Annexure 10:
ELECTRICAL REPORT

de villiers & moore
CONSULTING ENGINEERS
Electrical, Mechanical, Fire

Our Ref: E5263J/L002c Your Ref:
Date: 2025-08-21

GEORGE: GO GEORGE BUS NEW TERMINUS: ELECTRICAL AND ELECTRONIC REPORT: REV 005

This report has been prepared in order to access the suitability of the existing electrical and electronic infra-structure on the site in order to accommodate the proposed new development of the Go George Bus Terminal as envisaged by the Architect's proposal.

The report has been preprepared based on the following:

1. Visual inspections of the site by ourselves
2. Reviewing as built information
3. Previous experience of the old site as our company was part off the team who constructed the temporary facility
4. Condition assessment of the infra-structure

The following will be considered

1. Electrical Bulk Services
2. Low Voltage Distribution
3. Standby Power and Grid Tied PV
4. Area Lighting
5. Electronic Infra-structure
6. Cost Estimates

Electrical Bulk Services

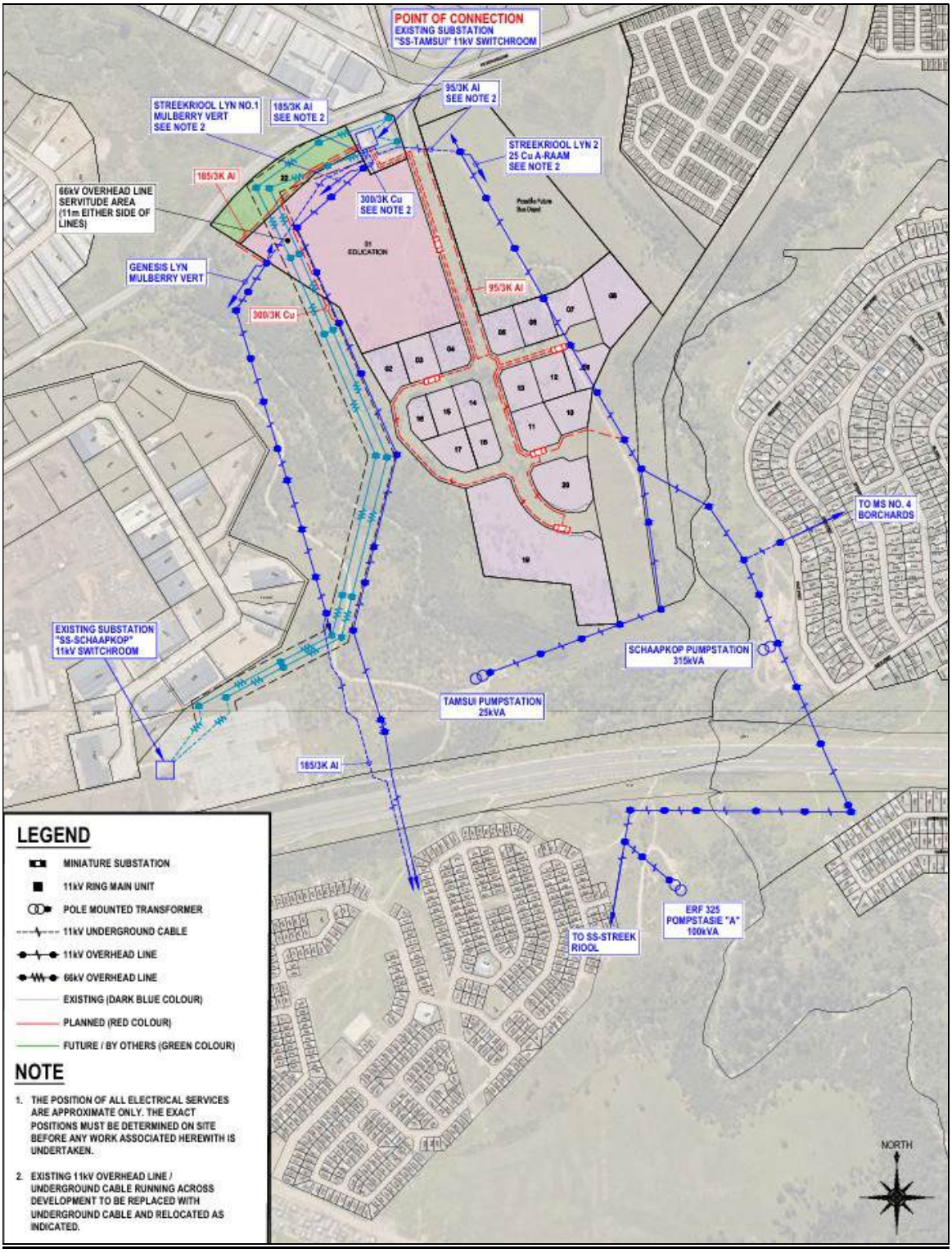
There is currently no point of supply on the greater ERF 464

Master Plan

This masterplan from CMB indicated that more Mini substations will be added on the 11KV ring feed for future planning. A Grid impact study might need to be conducted to account for 4 more minisubs required for the future Bus Depot requirements. Note the OH/L running across to proposed site needs to be removed and replaced with an underground line.

See the master plan below.

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Registered Member: Consulting Engineers South Africa (CESA)
Directors: R.G HALL Pr Eng B.Sc Eng, C.H. KOCH Pr Eng B.Eng, T.H. HEYNS Pr Tech Eng, W.J. BADENHORST Pr Tech Eng, G.F. ARENDSE Pr Tech Eng



Load requirement

Bus Depot

Mainly Administration office buildings

Electrical busses

Electric Bus charging requirement:

Below is the technical information for an electrical bus, 37- seater that was tested in Cape Town

Range: 300km
Battery capacity: 324kWh
Charging limit: 80KW
Charging time max: 3 hours

Pilot test specifications[4]

The specifications for the two buses that were tested are presented in Table 1.

Table 1: BYD K9 Electric Transit Bus Specifications

DIMENSIONS	
Length (metres)	12.5
Width (metres)	2.6
Height (metres)	3.4
Seats	37
PERFORMANCE	
Top speed (km/hr)	100
Max grade (%)	17
Range (kms)	300
Turning radius (metres)	13.4
Approach/departure angle	≥ 8.6° / ≥ 8.6°
POWERTRAIN	
Motor type	AC Synchronous
Max power	150kW x two[5]
Max torque	550N-m x two
Battery type	Lithium Iron Phosphate (LFP)
Battery capacity	324kWh
Charging capacity	80kW
Charging time	3 hours

A Dedicated 500KVA Minisub would be able to charge 5 busses simultaneously. After-hour charging would be advisable for two reasons:

- Most routes would not operate
- Electricity tariffs are lower at off-peak times

Electric Bus	Charge KW	Hours	kWh
BYD bus1	80	3	240
BYD bus2	80	3	240
BYD bus3	80	3	240
BYD bus4	80	3	240
BYD bus5	80	3	240
	400	**15**	**1200**

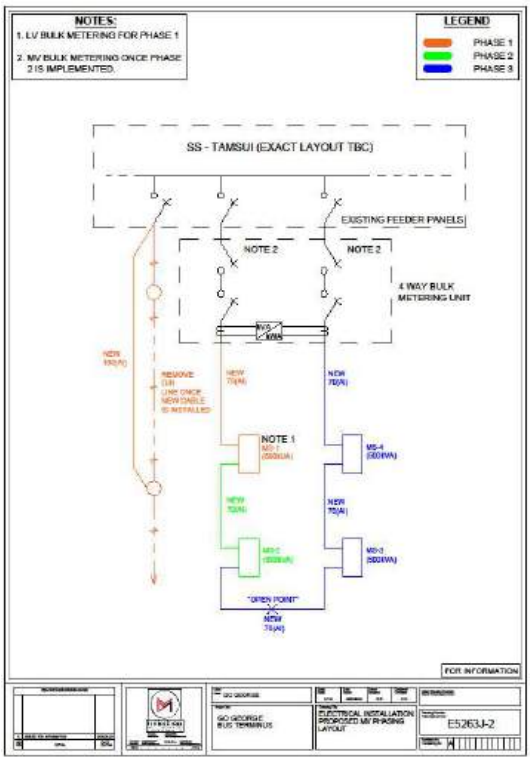
A 500KVA (400KVA at 80% load) Minisub could supply power to charge 15 busses a day during after-hour periods at 3 different time slots:

20:00-23:00, bus 1-5
23:00-02:00, bus 6-10
02:00-05:00, bus 11-15

Time	Busses	Cycle
20:00		
21:00		
22:00		
23:00	5	1
00:00		
01:00		
02:00	5	2
03:00		
04:00		
05:00	5	3

New Bulk Electrical Services

Refer to single line diagram E5263J/2-REV A for basic phasing of the Development from an electrical point of view



Phase1

A new 500kVA mini-substation will be supplied via a 70(Al) 11kV cable taken from one of the existing feeder panels in SS-Tamsui
A new 185(Al) 11kV cable will be installed from an existing feeder panel in SS-Tamsui laid along the same partial route as the cable above and then further on to pick up the overhead line on the other side of the Development
This cable will be supplied by the George Municipality but will be installed by the Developer
This will allow the overhead line to be removed which crosses over the erf

In order to supply the proposed new layout prepared by the Architects, the following will be required to be implemented.
The first mini-substation will need to be installed (500kVA unit) and an application will need to be made to George Municipality for the additional load.
The location of the mini-substation will need to be positioned to be closer to the load.
There is sufficient capacity in the area to supply the upgraded demand.
The additional notified demand will attract Development Charges at the published tariffs applicable in the year of application (and payment).
The low voltage bulk supply kiosk will be required to allow for a bulk supply to the Bus Depot during phase 1

Phase2

Once phase 2 commences a new second 500KVA mini substation will be required on a dedicated 70(Al) 11kV ring feed for the electric charging station close the bus parking area

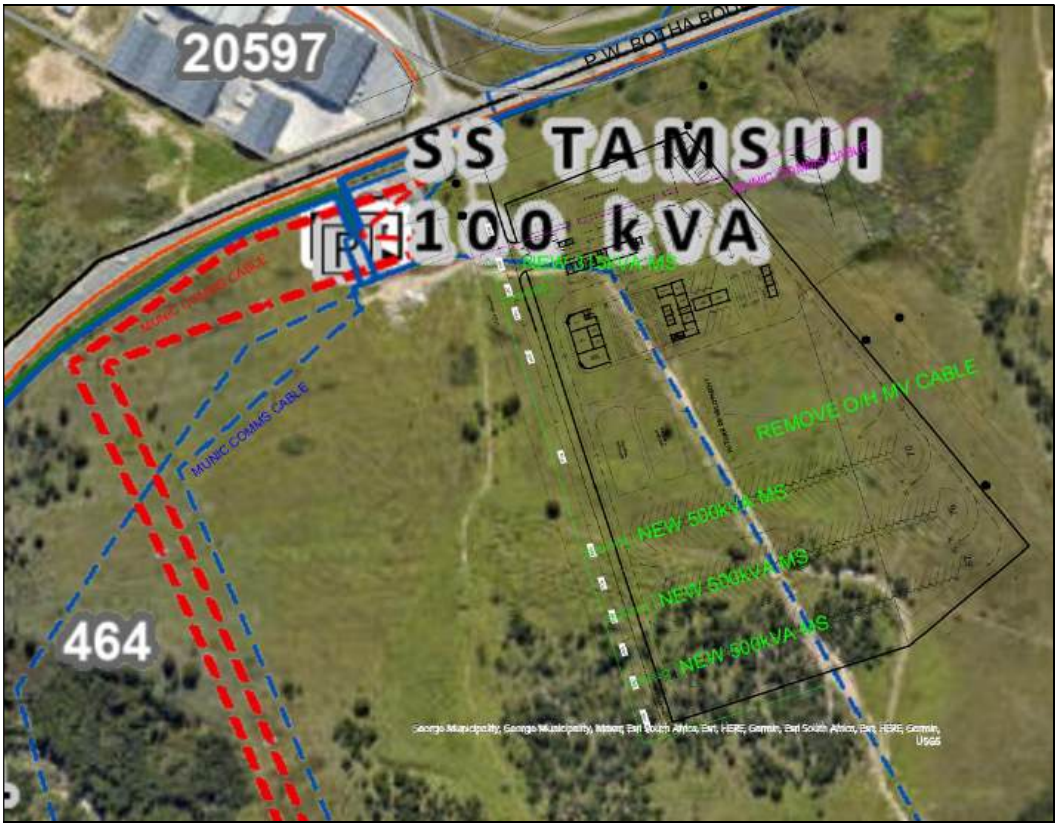
Phase3

The next phase would be to have a third and fourth 500KVA minisubs for charging. A total dedicated ring of 3 x 500KVA minisubs should be able to charge a total fleet of 45 electric busses.

Existing service plan layout with proposed changes:

That the 11KV OH/L which span across the erf, be moved and buried underground. The comms cable could also be moved.

The charging sub station can be placed at the parking bays as indicated below



(lay out of the bus parking to change)

The following bulk supply options were considered:

Option 1
4 x MS on the existing MV feed – this not supported and will not be considered any further

Option 2
4 x MS directly connected to the 66kV SS-Tamsui with a dedicated MV ring feed and done in phases

The Municipal Development Costs associated with the phasing mentioned above are

Estimated Development Contribution Cost (excluding VAT) for Phase 1

A LV Municipal Bulk Meter R 40 000-00

Consumer Deposit estimation R 359 711-21

Development Charges R2 545 900-00

PHASE 1 DEVELOPMENT CHARGES AS AT 2025-07-01 – VALID FOR A YEAR

Code	Land Use			Unit					
					Total Exiting Right			Total New Right	
OTHERS							kVA		kVA
	Others. No further diversity applied. (as applied by consultant)			Actual kVA (ADMD)			0		500
Is the development located within Public Transport (PT1) zone?					Please select		Yes		
Calculation of bulk engineering services component of Development Charge									
Service	Units	Existing demand (ADMD)	New demand (ADMD)	Unit Cost	Amount		VAT		Total
Electricity	kVA	0,00	500,00	R 5 091,82	R 2 545 908,59		R 381 886,29		R 2 927 794,88
Total bulk engineering services component of Development Charge payable					R 2 545 908,59		R 381 886,29		R 2 927 794,88

Estimated Costing (excluding VAT) for Phase 2/3

A MV Municipal Bulk Meter R 150 000-00

Consumer Deposit estimation R1 630 000-00

Development Charges R5 178 163-00 – R2 545 900-00 = R2 632 263-00

PHASE 2/3 DEVELOPMENT CHARGES AS AT 2025-07-01 – VALID FOR A YEAR

Code	Land Use			Unit					
					Total Exiting Right			Total New Right	
OTHERS							kVA		kVA
	Others. No further diversity applied. (as applied by consultant)			Actual kVA (ADMD)			0		2000
Is the development located within Public Transport (PT1) zone?					Please select		Yes		
Calculation of bulk engineering services component of Development Charge									
Service	Units	Existing demand (ADMD)	New demand (ADMD)	Unit Cost	Amount		VAT		Total
Electricity	kVA	0,00	2000,00	R 2 589,08	R 5 178 163,09		R 776 724,46		R 5 954 887,55
Total bulk engineering services component of Development Charge payable					R 5 178 163,09		R 776 724,46		R 5 954 887,55

PHASE 1

Medium Voltage Distribution

The initial supply to the site for the various building and services will be supplied via a new 500kVA mini-substation. This will then supply a Low Voltage Bulk Metering Kiosk.

Low Voltage Distribution

From the low voltage bulk metering kiosk a consumer kiosk is supplied, "New Bus Depot" with 2x185 x 4c (Cu) 1000/600V PVC SWA PVC cable. The kiosk is situated outside of the transformer enclosure and is the consumer point of supply.
From this kiosk 2x185x 4c (Cu) 1000/600V PVC SWA PVC cable supplies a main distribution board.

The only consumers connected to this low voltage bulk supply would be, Go George Bus Terminal,

New Electrical Services

A new distribution kiosk/board will be required from where the additional accommodation will be supplied with underground cables appropriately sized for the calculated load.
Sub distribution boards will be required in each of the various blocks fed from this distribution kiosk/board.
Internal Building Electrical Services

The new buildings will be equipped with
- Distribution trunking and wireways
- Distribution Boards
- Lighting and Emergency Lighting
- Small power distribution and outlets sockets
- UPS backup where required
- Data and Security Distribution
- Earthing requirements

PHASE 2

Medium Voltage Distribution

When the electric bus charging is required, the site will be supplied via a medium voltage bulk meter unit similar to an ABB CCVVF unit situated next to the entrance to the site and fed from two feeder panels in SS-Tamsui
Metering will be installed on the two outgoing feeders which will supply the various mini-substations via a ring feed.
The feeder panels are existing panels in the substation
The additional 500kVA mini-substations will be added to the network as and when required.

Standby Power and Grid Tied PV

Existing Services

No existing services

New Services

It would be the intention to provide a grid tied PV system to assist with the demand of the facility and it would be integrated with the generator by means of a generator integration kit.

Budgetary Estimate: Off grid PV With BESS for 5 busses:
400kWp PV Array x 3 hours per day = 1200kWh
1500kWh BESS @ 80% DOD = 1200kWh
Cost estimate would be 20 x 1 200 000Wh = R24 Million (1200kWh x 356 days x R3/unit = R1,314 million)

Area Lighting

Existing Area Lighting

No existing area Lighting

New Area Lighting

The new proposed facility will require extensive area and floodlighting. It is recommended that the lighting be standardised and that use be made of high-level LED floodlighting.

Electronic Installation

Existing Electronic Services

None, only an overhead communication wire linked with the protection system of the sub station

Condition Assessment

General condition from a visual point of view looks to be reasonable.

New Electronic Services

The following security systems will/may be required and allowance will need to be made for site distribution and internal wireways as well as headend equipment accommodation.

Access control
Intercom
CCTV
Intruder alarm
Telephone and data
Wi-Fi
Fire detection system
Public address system

Mechanical Installation

Diesel Storage

The project will include above ground diesel fuel storage and filling facilities.

A detailed fire protection plan will be compiled for this that will include the following regulations:
SANS 10400:2024 PART A, T & W
SANS 10131
SANS 10089-1
SANS 10089-3.
Local Bylaws

The fire plan shall as a minimum demonstrate safe fuel containment in case of accidental spillage as well as fire protection equipment, escape routes, safety distances and safety signage.

The fire plan will be submitted for BDM approval accompanied with SANS form 2. A form 4 shall be issued at completion.

Cost Estimates

Order of magnitude cost estimates have been provided to the Quantity Surveyors for inclusion in their report.

Conclusion

There is no capacity restraint from the Municipality for the new site as it is close to a substation.

As it is the intention of the architect's proposal that the existing depot be done away with once the new facility is built, the capacity and maintenance state of the existing depot does not affect the proposal.

We trust that the above meets with your requirements.

Yours faithfully



R G HALL Pr Eng
DE VILLIERS & MOORE (PTY) LTD

Annexure 11:
TRAFFIC IMPACT ASSESSMENT (February 2025)

URBAN ENGINEERING
CONSULTING CIVIL AND STRUCTURAL ENGINEERS

TRAFFIC IMPACT INVESTIGATION

PROPOSED METRO GROUNDS INDUSTRIAL DEVELOPMENT

Report Number 22-158_TIA



Date: February 2025 Revision (1)

QUALITY ASSURANCE DATA

Report Title:	PROPOSED METRO GROUNDS INDUSTRIAL DEVELOPMENT
Client:	Zutari
Report Number:	22-158_TIA
Revision Number	Revision (1)

Revision History

Date	Rev	Written By	Issued to		Distribution
			Name	Institution	
10-06-2024	Draft	Frans v Aardt	Rudolf Schröder	Zutari	Email (.pdf)
24-07-2024	0	Frans v Aardt	Rudolf Schröder	Zutari	Email (.pdf)
24-02-2025	1	Frans v Aardt	Rudolf Schröder	Zutari	Email (.pdf)

Written by:

Frans R van Aardt (B.Ing, M.Ing, Pr.Eng)
On behalf of Urban Engineering (Pty) Ltd

EXECUTIVE SUMMARY

This report presents a Traffic Impact Assessment (TIA) conducted by Urban Engineering (Pty) Ltd, commissioned by Zutari, for the proposed Metro Grounds industrial development on the remainder of Erf 464 in George. The assessment aims to evaluate and advise on the proposed internal road network, focusing on planning aspects such as road layout, road reserve widths, intersection spacing, and forms of control, to ensure functionality, connectivity, and access.

1. **Site Description:**
   - Located at the intersection of PW Botha Boulevard and Ossie Urban Street, the site is largely undeveloped.
2. **Surrounding Road Network:**
   - PW Botha Boulevard is classified as a Class 3 District Distributor
   - Ossie Urban Street is classified as a Class 5 Access Road.
3. **Historical and Existing Conditions:**
   - Previous traffic studies conducted in 2011, 2015, and 2021 provide context for the current assessment, highlighting the necessity for infrastructure improvements due to increased traffic volumes.
4. **Key Issues Identified:**
   - Poor Shoulder Sight Distance (SSD) at the PW Botha Blvd/Ossie Urban Str intersection.

RECOMMENDATIONS

i. **Intersection Upgrades:**

- **PW Botha Boulevard/Rand Street:**
  - Maintain as a signalized intersection instead of converting to a roundabout to improve safety and create a synchronized corridor with other signalized intersections.

ii. Intersection of PW Botha Boulevard/Ossie Urban Street:

- Upgrade to a signalized intersection to mitigate the lack of sufficient shoulder sight distance and enhance synchronization with surrounding traffic signals.

iii. Internal Road Network:

- Implement recommended intersection controls and driveway positions as per the provided layout plans to ensure maximum mobility.

iv. Pedestrian and NMT Provisions:

- Establish UA-compliant sidewalks next to all new internal roads and along PW Botha Boulevard. Cross sections to include a landscaped furniture zone to enhance pedestrian safety and enhance the aesthetic appeal of the kerbside environment.
- Include provisions for street lighting alongside new internal Metro Grounds roads to ensure safety and visibility at night.
- Make provision for clearly defined (preferably Class 1 but minimum Class 3) bicycle routes/lanes in all road cross sections. Road layouts should also make provision for safe bicycle crossing areas at intersections.

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LIST OF ABBREVIATIONS

GIZSBL	George Integrated Zoning Scheme By-Law
WCG	Western Cape Government
PGWC	Provincial Government of the Western Cape
AMG	Access Management Guidelines (2020)
RDE	Roadside Development Environment
UA	Universal Accessibility
NMT	Non-Motorised Transport
GLA	Gross Leasable Area
SATGRM	South African Trip Generation Rates Manual
CITP	Comprehensive Integrated Transport Plan
LOS	Level of Service
DoT	Department of Transport
MR	Main Road
DR	Divisional Road
RNIS	Road Network Information System
LILO	Left-In Left-Out
PWBB	PW Botha Boulevard
NMB	Nelson Mandela Boulevard

1 INTRODUCTION

Urban Engineering (Pty) Ltd was appointed by Zutari for the Traffic Impact Assessment pertaining to the proposed industrial development (referred to as Metro Grounds) on the remainder of Erf 464, George.

2 TERMS OF REFERENCE

Based on George Municipality's request for quotation (Reference: ToR Metro Grounds Industrial: Layout Review, Outline Services Report and TIA, Revision 9 dated 27 July 2022), the terms of reference are stipulated as follows:

***"Traffic Impact Assessment*:** *A traffic impact assessment for the purposes of the proposed Go-George bus depot was concluded (George Integrated Public Transport Network: Proposed Permanent Bus Depot on Part of Portion 464 George: Traffic Impact Assessment – Draft 2: 14 September 2021), which included references to the impact of the proposed industrial area. Working from the data contained in such report, if possible, a TIA to be done in respect of the proposed industrial development. The roads master planning context and/or the existing and proposed projects in the vicinity (wider context) of the site to be considered in the TIA in order to facilitate functionality, connectivity and access. Non-Motorized Transport and pedestrian movement to be enabled."*

3 OBJECTIVE OF THIS REPORT

This report aims to evaluate and advise on the proposed internal road network, focusing on planning aspects such as layout, road reserve widths, intersection spacing, layouts and forms of control. This report should be seen as a high-level road network planning tool. Road network planning is important when planning new developments because it can have significant impacts on the economy, society and health of the people living in and around the development area.

4 SITE DESCRIPTION AND LOCALITY

The site under consideration belongs to the municipality and comprises a part of the Remainder of Erf 464, George. The site is situated at the intersection of PW Botha Boulevard and Ossie Urban Street, roughly halfway between Nelson Mandela Boulevard and York Street. The site has approximate Latitude/Longitude coordinates of 33°59'21.34"S and 22°27'28.52"E. The site is mainly undeveloped except for an electrical substation situated at the entrance to the site. Photos taken during various site inspections are attached as **ANNEXURE A.**



Figure 4-1 - Site locality

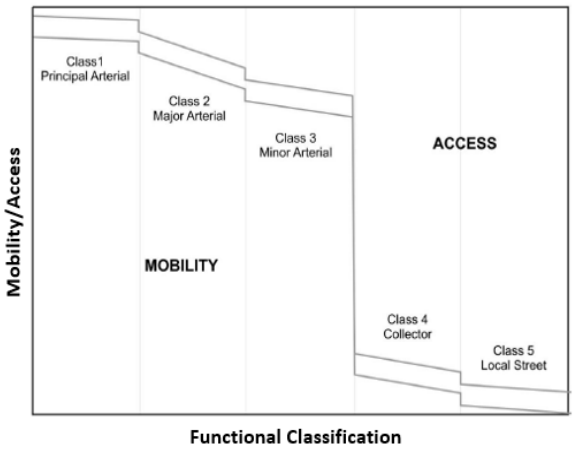
5 THE SURROUNDING ROAD NETWORK

Depending on which guidelines are being used, the nomenclature used in road classification varies slightly. For ease of reference, the differences between the terms used in the 2006 Department of Transport (DoT) guidelines and those specified in 2018 in the Road Classification and Access Management Guideline (COTO), are listed below:

Road Class	Function	DoT 2006 Guidelines	COTO 2018 (TRH 26 Manual)
Class 1	Mobility	Primary Distributor	Principal Arterial
Class 2		Regional Distributor	Major Arterial
Class 3		District Distributor	Minor Arterial
Class 4	Access / Activity	District Collector	Collector Street
Class 5		Access Road	Local Street
Class 6		Non-motorised access way	Walkway

Table 5-1 - Road Classification Nomenclature

Roadways are classified by function on the basis of the priority given to land access versus through-traffic movement. Class 1 and 2 arterial roads provide a predominantly “mobility” function and Classes 4 and 5 roads perform a collector and local “access” function.



Class	Function	Description
Class 1	Mobility	Principal Arterial
Class 2		Major Arterial
Class 3	Mobility/Access	Minor Arterial
Class 4		Collector
Class 5	Access	Local

Figure 5-1 - Relationship Between Access and Mobility

The functions of ‘mobility’ and ‘access’ overlap on minor arterials (Class 3 roads). This relationship between access and mobility has been indicated schematically in Figure 5-1.

Access Management is particularly important along Principal, Major and Minor Arterials and other primary roads that are expected to provide safe and efficient movement of traffic as well as limited access to property. However, Access Management is also necessary on lower-order roadways, such as Collector - and Local Streets, to address safety considerations, such as sight distance and corner clearance.

As indicated in Figure 4-1, the site is situated at the intersection of Ossie Urban Street and PW Botha Boulevard. The current intersection layout makes provision for free-flow movement along PW Botha Boulevard, with stop control along the minor roads only.

The current layout of the intersection of PW Botha Boulevard and Ossie Urban Street can be seen in die aerial photos included as Figure 5-2 below.



Figure 5-2 - Intersection Layout

5.1 PW BOTHA BOULEVARD

5.1.1 ROAD CHARACTERISTICS

PW Botha Boulevard is approximately 3100m long and runs predominantly in an East/West direction, providing a transportation link between Nelson Mandela Boulevard (NMB) in the east and York Street (MR0002) in the west. The surfacing is mainly bitumen based (asphalt) but short sections of interlocking paving or concrete are present at high traffic intersections. The cross sections in the vicinity of the site consist of a 9.8m wide surfaced roadway with concrete kerbs and a grassed verge on both sides. Stormwater is diverted by a combination of open stormwater channels and formal pipe infrastructure. The section under consideration has a posted speed limit of 60 km/h. This speed limit increases to 80 km/h, downstream of the PW Botha/Ossie Urban Intersection (towards Nelson Mandela Boulevard).



Figure 5-3 – PW Botha Boulevard Photos

The site is situated next to the GO GEORGE Industria-CBD Bus route (refer to Figure 5-4). Formal sidewalks are provided in isolated positions next to the GO GEORGE bus stops, but in general insufficient provision for Non-Motorised Transport (NMT) has been provided and pedestrians and cyclist are forced to make use of the roadway which they share with passenger vehicles, busses and heavy vehicles.



Figure 5-4 - Intersection Layout

Based on the George IMQS website, the road condition varies between No Data, Very Poor and Poor (refer to Figure 5-5 below).



Figure 5-5 - George IMQS Road Surface Condition

Visual inspections of the road carried out in June 2024 revealed various areas of pavement damage close to the PW Botha Boulevard, Ossie Urban Intersection, as indicated in Figure 5-6 below.



Figure 5-6 - Visual Pavement Damage

Road maintenance and rehabilitation commenced during in the second quarter of 2024 as is evident in the below photo (Figure 5-7) dated 03 June 2024.



Figure 5-7 - Road Maintenance along PW Botha Blvd June 2024.

A follow up inspection in February 2025 revealed that the rehabilitation was still ongoing and the Contractor was busy on the section between Steinhof Park and Ossie Urban Intersection.



Figure 5-8 - Road Maintenance along PW Botha Blvd Feb 2025.

5.1.2 ROAD CLASSIFICATION

Based on the George Roads Master Plan (Kantey and Templer, June 2006), PW Botha Boulevard is classified as a Class 3 District Distributor (refer to Figure 5-8).

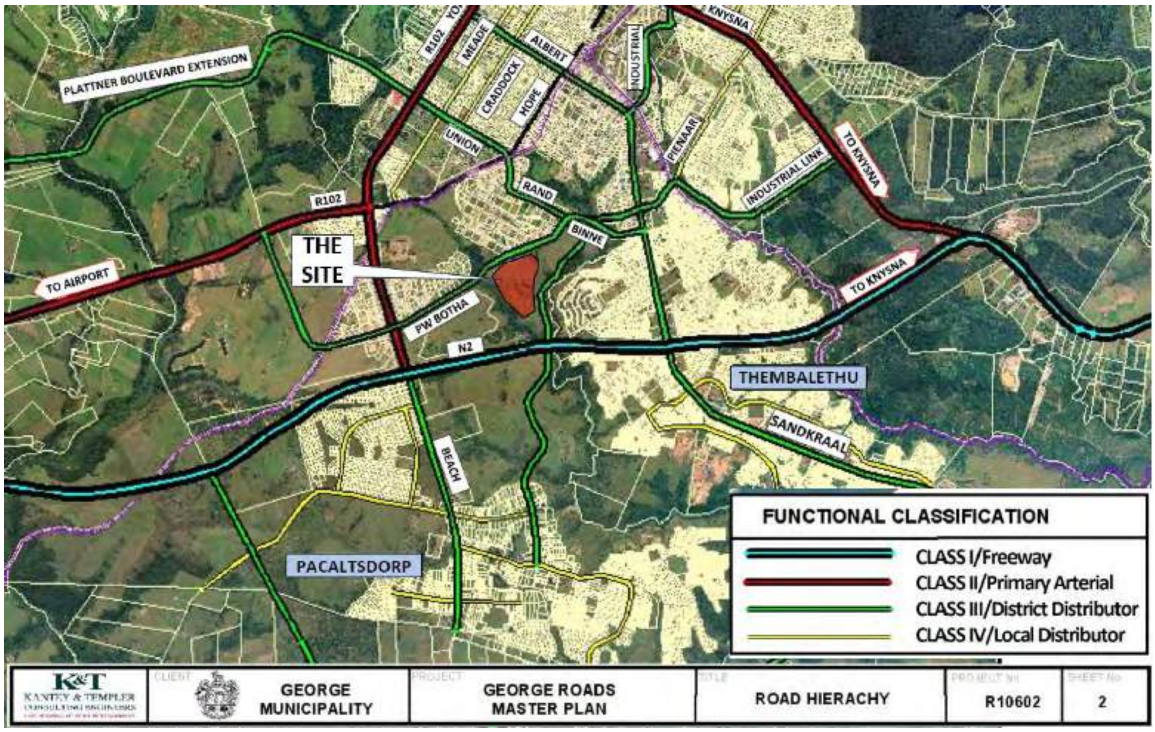


Figure 5-9 - George Roads Master Plan

The TRH 26 (SA Road Classification and Access Manual) defines Class 3 Minor Arterials as follows:

Class U3 Urban Minor Arterials

Urban minor arterials would typically be required to serve traffic in most urban areas, including small towns.

In cities and larger towns, the Class U3 arterials would be used to provide connections between districts of the city or town and form the last leg of the journey on the mobility road network, bringing traffic to within one kilometre of its final destination. In small towns, they would be used to provide general overall mobility to the whole town. The arterials can also be used to serve economic activity centres that are not served by Class 1 or 2 arterials.

The Class U3 arterials should also be used to serve as connectors to rural Class 3 routes. They should preferably start and stop at arterials of equal or one higher Class (2 to 3) but can connect to Class 1 principal arterials.

Minor arterials function as through routes on a district scale. While still carrying predominantly through traffic, they serve shorter distance trips with a length of around 2 km but can be as short as a single block if connecting higher order routes.

The minor arterials would typically carry volumes of traffic of between 10 000 and 40 000 vehicles per day.

5.2 OSSIE URBAN STREET

5.2.1 ROAD CHARACTERISTICS

Ossie Uban Street is approximately 685m long. The road starts at the PW Botha/Ossie Urban Intersection and terminates with a cul-de-sac at the end. The street is surfaced with bitumen-based sealer (asphalt) and the typical cross sections consist of a 9.6m wide surfaced roadway with concrete kerbs both sides. Multiple high- and low volumes driveways give direct access to the various industrial properties situated next to Ossie Urban Street. There are GO GEORGE bus stops at the intersection of Ossie Urban and PW Botha Boulevard, but Ossie Urban Street does not form part of the GO GEORGE bus route. Little to no provision is made for Non-motorized Transport (NMT) and pedestrians are forced to walk on the verge or within the roadway.



Figure 5-10 - Discovery Road Photos

The Roadside Development Environment is influenced by various industrial developments with direct access to Ossie Urban Street, as indicated in Figure 5-10.



Figure 5-11 - Ossie Urban Roadside Development Environment

5.2.2 ROAD CLASSIFICATION

Ossie Urban Street was not specifically addressed in the George Roads Master Plan (prepared by Kantey and Templer), but the road has been included in the George IMQS website. According to the George IMQS, Ossie Urban Street is classified as a Class 5 "Access Road" (refer to Figure 5-11).



Figure 5-12 - George IMQS Road Classification

The TRH 26 (SA Road Classification and Access Manual) defines Class 5 Local (Access) Streets as follows:

Class U5 Local Access Street

Class 5 streets provide access to individual properties. As they must provide exclusively an access or activity function, both traffic volumes and trip lengths must be significantly limited. They must not be continuous between roads of an order higher than Class 4.

Local streets should not carry any through traffic but only traffic with an origin or destination along the street, i.e. all the traffic using the local street will have a destination in the street itself. In terms of the TRH 26 Manual, local streets can be classified as either 5a or 5b as follows:

i) Class 5a Commercial local street

These local streets are found in areas with commercial, business, industrial, shopping and mixed-use residential developments. The streets often carry a high percentage of heavy vehicle traffic which uses the street to access loading areas or bus stops.

Commercial local streets should not carry volumes of more than about 5 000 vehicles per day. The length of the street should be limited to a maximum of about 1 km.

ii) Class 5b Residential local street

These local streets are found in residential areas and almost exclusively serve residential traffic and possibly some public transport as well as refuse and small delivery trucks.

Residential local streets should not carry more than about 1 000 vehicles per day or 100 vehicles during peak hours. If Class 5b residential local street volumes exceed 5 000 per day, this is a criterion to classify the road as a Class 4b residential collector.

Local residential streets should be short blocks of less than 0.5 km, with one kilometre being the maximum for safety reasons.

6 GUIDELINE DOCUMENTS

This investigation was undertaken in accordance with the following guidelines:

- National Land Transport Act, 2009 (Government Gazette No. 32110)
- South African Traffic Impact & Site Traffic Assessment Manual (TMH 16 Volume 1, COTO)
- South African Trip Data Manual (TMH 17, Draft 2.0, May 2018)
- Access Management Guidelines (WCG Dept. Transport and Public Works, 2020)
- George Roads Master Plan (Kantey and Templer, 2007)
- Urban Design Famework, (10 March 2023), Zutari
- Department of Transport, UTG 1 (1996) Geometric Design of Urban Arterial Roads
- Department of Transport UTG 5 (1996) Geometric Design of Urban Collector Roads

7 LITERATURE REVIEW

This report should be read in conjunction with the following reports and historic traffic studies:

1. Transport Impact Statement (TIS) pertaining to: *Proposed Permanent Bus Depot (Borcherds) on a Portion of Erf 464 George, (EJ Robertson Consultants, unreferenced, August 2011)*
2. Traffic Impact Assessment (TIA) pertaining to: *Proposed Development on Erf 464 (Metro Grounds) George, (SMEC Report Nr. C1461-Rev02, February 2015)*
3. Traffic Impact Assessment (TIA) pertaining to: *Proposed Permanent Bus Depot on Portion of Erf 464, George.* (Zutari Report Nr 1001403-0000-REP-KR-00001-1) Revision (Draft 2), dated 2021/09/14.

7.1 EJ ROBERTSON'S TRANSPORT IMPACT STATEMENT (UNREFERENCED, AUGUST 2011)

The Traffic Impact Statement (TIS) for the proposed permanent bus depot on Erf 464 in George was conducted to assess the traffic impacts as part of the George Integrated Public Transport Network (GIPTN). This initiative aimed to transform informal minibus taxi and bus operations into a regulated system. The selected 5-hectare site, located adjacent to PW Botha Boulevard, was chosen for its suitability in terms of land availability, operational efficiency, and minimal planning time. The report was based on the 2002 PGWC Road Access Guidelines.

The depot was designed to accommodate around 200 buses, featuring an office/administration block, staff facilities, a workshop, fuelling and wash bays, and security control. Access to the site was planned via a future road between PW Botha Boulevard and the East Rand extension, with provisions for handling large vehicle movements.

The TIS analysed traffic impacts, noting that bus movements were scheduled outside peak hours (04:00-06:00 and 16:00-18:00), minimizing conflicts with regular traffic. The expected increase in traffic was manageable within existing road capacities.

To mitigate traffic impact, recommendations included road modifications such as additional turn lanes, embayed bus stops, sidewalks, and provisions for future traffic signals. The TIS recommended acceptance of the site zoning and subdivision, with a review suggested if the depot was not operational within five years, incorporating data from interim operations at the York Street depot.

7.2 SMEC'S TIA PERTAINING TO THE DEVELOPMENT OF ERF 464 (REPORT C1461-REV 2)

The Traffic Impact Assessment was prepared by SMEC South Africa for Royal Haskoning DHV and evaluated the impact of the Erf 464 residential development, on the existing road network. A short summary of the TIA is included below:

7.2.1 CONTEXT AND OPERATIONAL ANALYSIS

The development plan for Erf 464 included 674 erven, comprising 661 low-income residential erven, 3 transport zones, 6 public open spaces, 1 business zone, 2 crèches, and 1 authority erven. The layout was provided by DELplan Urban and Regional Planners.

Traffic counts were conducted on 20 September 2013 at the P.W. Botha Road / Rand Street / Binne Street T-junction for a 12-hour weekday period. These counts were used to determine the 2013 peak hour traffic volumes, which served as the baseline for analysis.

The analysis was performed using SIDRA INTERSECTION 5.1 software, and the analysis covered both the current (2013) and future (2018) scenarios:

- **2013 Scenario**: With the development, most junction movements will operate at acceptable LOS, except for the right turn from Rand Street in the AM peak hour, which will operate at LOS F.
- **2018 Scenario**: The 4-legged junction will generally operate at acceptable levels, but the right turn from Rand Street (North) will face significant delays (LOS F) and oversaturation.

7.2.2 GEOMETRIC ASPECTS

Access Points and Road Network: Rand Street to be extended to form a 4-legged junction with P.W. Botha Road and Binne Street, providing three access points to the new development.

Road Classification: The roads were classified as Class 4 local collectors.

Shoulder Sight Distance (SSD): SSD at the Rand Street extension is inadequate for both passenger and single unit vehicles, necessitating signalization to mitigate safety concerns.

Intersection Spacing: The proposed spacing of intersections and access points meets the guidelines.

Right Turning Lanes: Future traffic projections warrant a right turning lane at the P.W. Botha Road / Binne Street / Rand Street junction.

Left Turning Lanes: Not warranted based on future traffic projections.

7.2.3 SECONDARY ISSUES:

Pedestrians and Street Lighting: Recommendations include improvements for pedestrian safety and adequate street lighting.

Public Transportation Routes: Adjustments to accommodate new public transport routes and embayments were suggested.

7.2.4 SUMMARY AND RECOMMENDATIONS

The study concludes that the proposed development will significantly impact the existing road network, necessitating the implementation of mitigation measures, particularly signalization at critical junctions and the introduction of right-turn lanes. Ensuring adequate sight distances and intersection spacing will enhance safety and operational efficiency.

7.3 ZUTARI'S TRAFFIC IMPACT ASSESSMENT (REF NR1001403-0000-REP-KR-00001-1)

The Traffic Impact Assessment (TIA) focused on the impact of the proposed permanent depot of the GO-GEORGE bus service on the road network (specifically in the Borcherds Industrial area). This new depot was deemed necessary due to the inadequacies of the current temporary depot on Erf 3472, York Street, which could not accommodate the anticipated growth in the bus fleet.

7.3.1 CONTEXT AND SITE DETAILS

The new depot was planned to be situated on a 4.6-hectare site on Erf 464, adjacent to PW Botha Boulevard, within the Borcherds Industrial area. This location was strategically chosen as it aligned with the George Spatial Development Framework. The temporary depot managed 122 buses, with an expected increase to 150 buses by 2025. This growth necessitated a larger facility to handle the demands of the bus service.

The TIA included detailed traffic counts (July 2021) and projections and access to the new depot was planned to be from PW Botha Boulevard. The report highlighted the importance of appropriate intersection spacing and throat lengths to ensure smooth ingress and egress from the depot, minimizing congestion and ensuring safety.

Specific recommendations were made for turning lanes at key intersections. The report suggested the installation of left and right turn lanes based on traffic volume projections during peak hours. This included detailed calculations for stacking distances and the capacity of the lanes to manage anticipated traffic without causing delays or safety issues.

7.3.2 MITIGATION MEASURES

Traffic Signal Installations: The TIA recommended the installation of traffic signals at the entrance/ exit into the Depot. Signals were necessary to manage the increased traffic flow and ensure safe turning movements, especially for buses entering and exiting the depot.

Entrance and Waiting Areas: To prevent backup onto the public road network, the depot required two (60m long) entrance lanes and ample stacking areas inside the depot.

Parking: The report recommends 93 passenger car parking bays and 194 bays for busses.

7.3.3 SECONDARY CONSIDERATIONS

Pedestrian and Cyclist Safety: The report also addressed the needs of pedestrians and cyclists, recommending appropriate crossings and safety measures to protect these vulnerable road users amidst the increased bus traffic.

Environmental and Community Impact: Consideration was given to the broader environmental and community impacts. Measures were proposed to mitigate noise and air pollution, ensuring the depot's operations did not affect the surrounding areas.

7.3.1 SUMMARY AND RECOMMENDATIONS

Implementation of Traffic Management Measures: The primary recommendation was the careful implementation of the proposed traffic management measures, including signal installations, turning lanes, and internal depot arrangements.

Monitoring and Evaluation: Ongoing monitoring and evaluation of traffic conditions post-implementation were recommended to ensure the measures were effective and to make adjustments as necessary.

The report proposed that PWBB be dualled should all planned development go ahead.

For ease of reference, the findings and recommendations of the Zutari report has been indicated schematically in Figure 7-1 below:

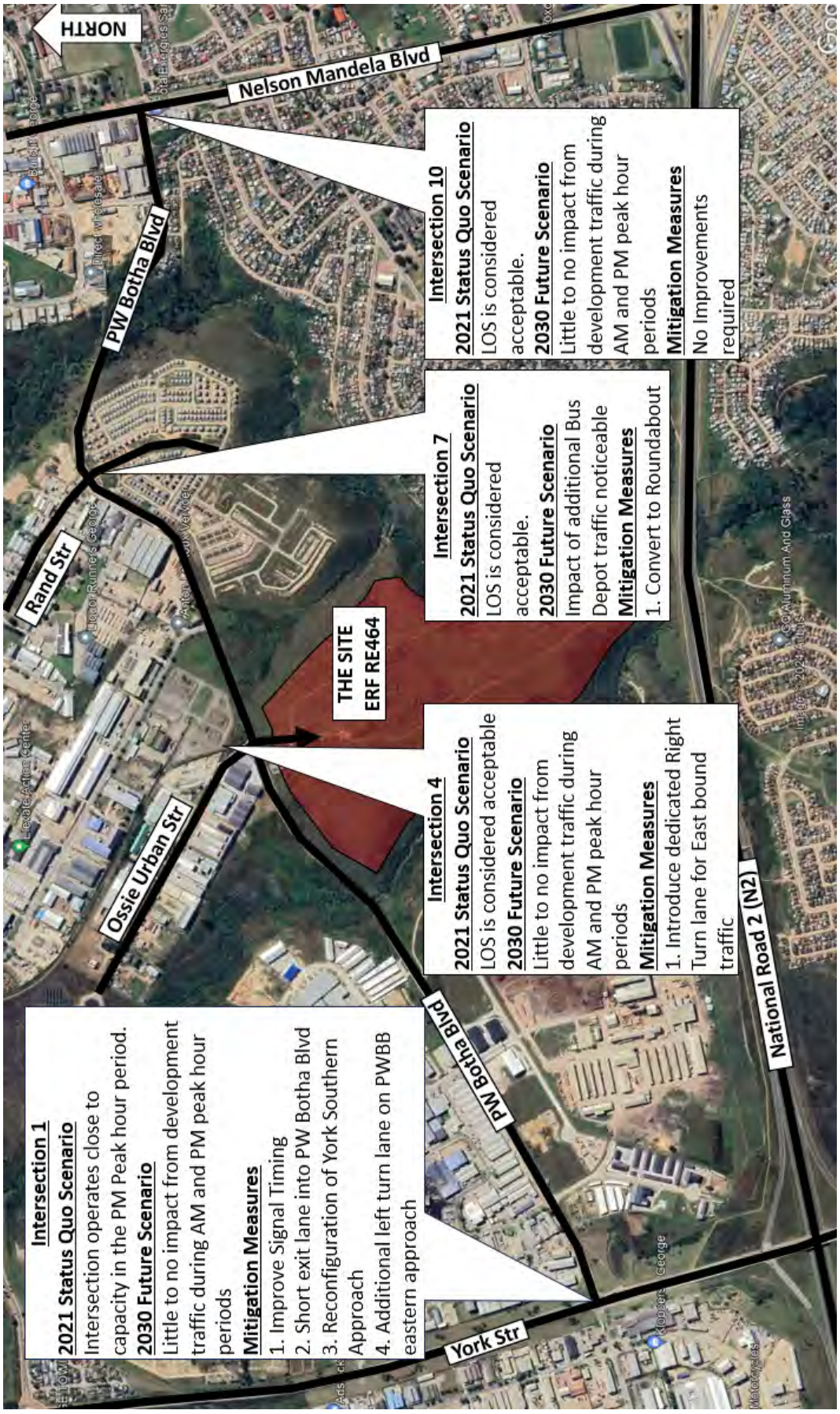


Figure 7-1 - Summary of Findings and Recommendations of Zutari Report

8 EXISTING (EXTERNAL) ROAD NETWORK

8.1 INTERSECTION SPACING

It is important to note that both the SMEC and Zutari reports, were based on the assumption that the intersection of PW Botha Boulevard and Rand Street will be converted to a roundabout. This is, however, not the case and the intersection has instead been converted to a traffic signal-controlled junction. The position of the site in relation to the other junctions (intersection spacing) along PW Botha Boulevard has been indicated schematically in Figure 8-1.

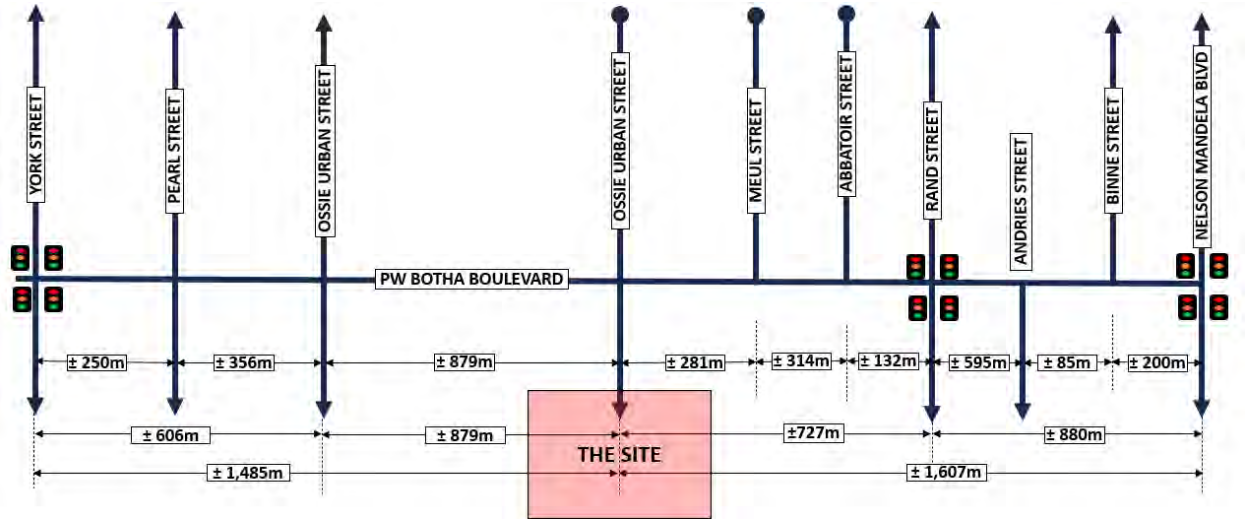


Figure 8-1 - Position of Site along PW Botha Boulevard

Since PW Botha Boulevard is a Class 3 Road (without medians), in the Suburban Roadside Development Environment, the spacing between signalised intersections along PW Botha Boulevard should be a minimum of 540 m, as recommended in the Western Cape Government's Access Management Guidelines (2020) (refer to Figure 8-2 and Table 8-1 below).

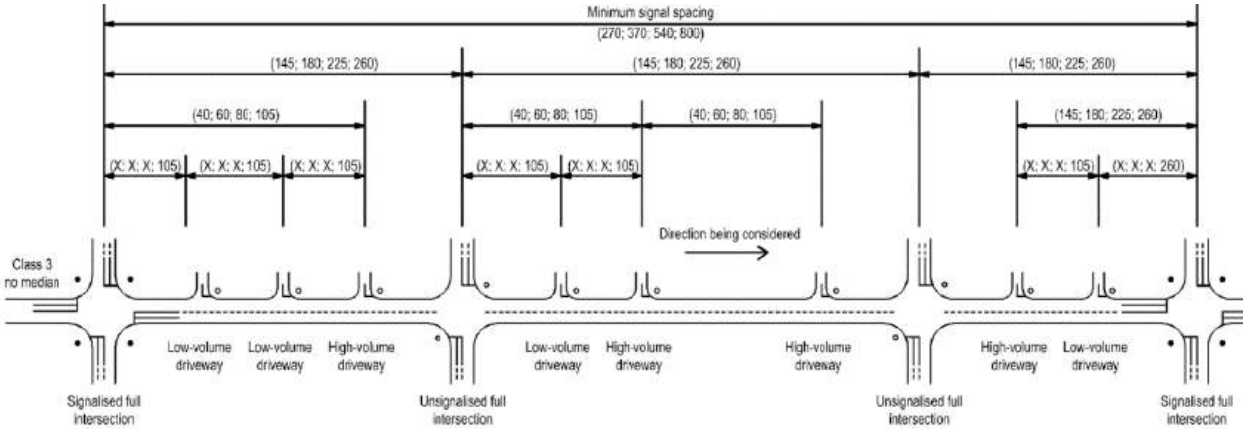


Figure 8-2 - AMG Intersection Spacing for Class 3 Roads

Roadside development environment	Road class Ideal spacing (m)		
	Class 2	Class 3	Class 4
CBD	417	305	243
Intermediate	583	417	305
Suburban	778	583	417
Semi-rural	1 222	778	583

Table 8-1 - Ideal Spacings (m) Before Adjustments

8.2 SHOULDER SITE DISTANCE

At a stop-controlled intersection, the driver of a stationary vehicle must be able to see enough of the intersecting main road to be able to cross before an approaching vehicle reaches the intersection, even if this vehicle comes into view just as the stopped vehicle starts to cross. Shoulder Sight Distance is measured from a passenger driver eye height (passenger car) of 1,05m to an object height of 1,3m. There must be no obstruction to the view in the sight triangle, defined as the area enclosed by the sight line and the centre line of the intersecting main road. The eye position is located 5m back from the road edge as indicated in Figure 8-3

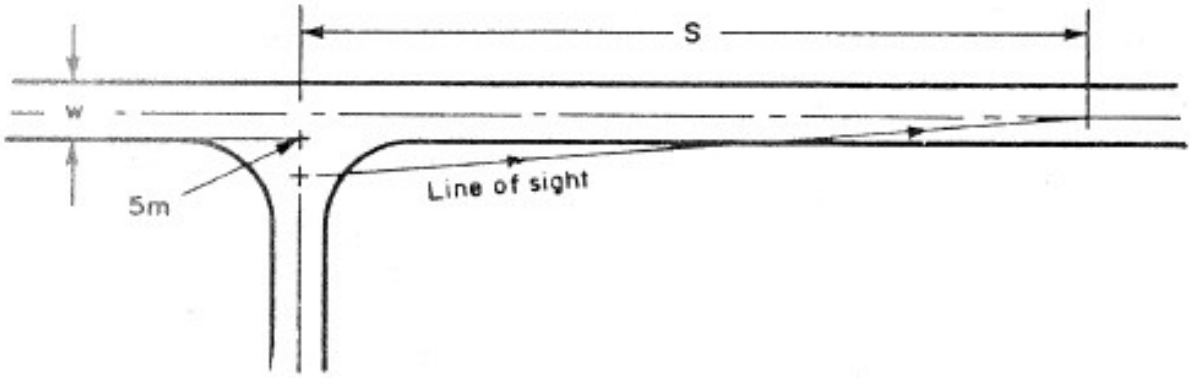


Figure 8-3 - Shoulder Sight Distance Parameters

Shoulder Sight distance is also a function of the Design Speed, Type of vehicle and Road width. In this instance the following assumptions are made:

- Design Speed: 60km/h
- Road Width = min 13,3m (9,8m + additional 3,5m right turn)
- Design Vehicle: Single Unit with Trailer

Based on the above assumptions it follows that a Shoulder Sight Distance of 250m is required along PW Botha Boulevard.

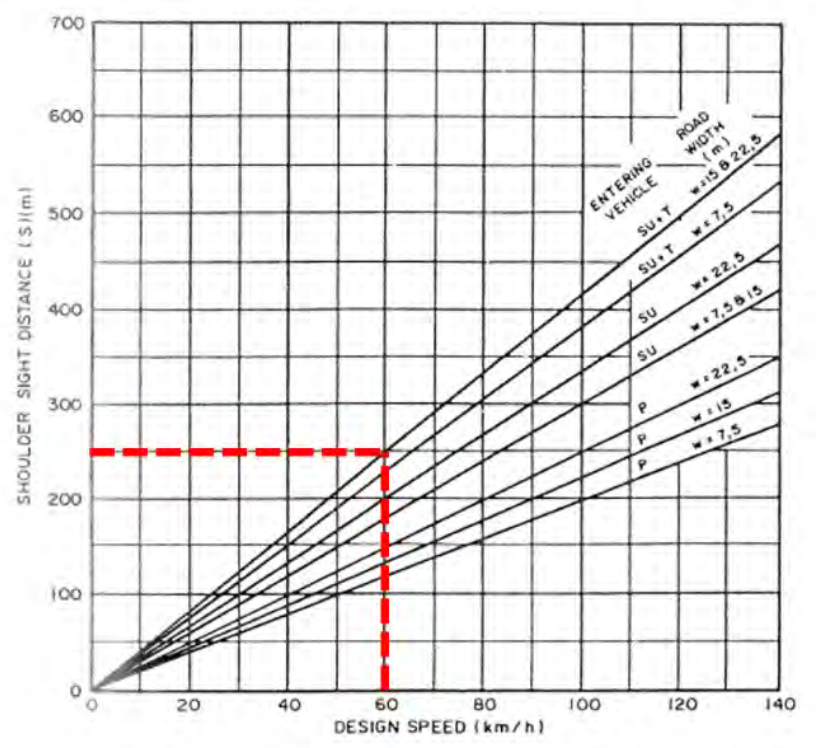


Figure 8-4 - Shoulder Sight Distance Requirement

Shoulder Sight Distance was not addressed in the Zutari Report, but site investigations reveal that SSD in both eastern and western directions, are severely obstructed by existing earth embankments (refer to Figure 8-5 below)



Figure 8-5 - SSD Measured on Site

As an additional check, the line of sight at the road edge, was also measured on site, as indicated in Figure 8-6. It is important to note that the Line of sight was measured directly next to the PW Botha Boulevard road edge, and not at a 5m off-set as required for Shoulder Sight Distance.



Figure 8-6 - Line of sight Measured at Road Edge

Line of Sight:

a) Towards the West

The combination of both a horizontal and vertical curve along the western approach of PW Botha Boulevard, leads to insufficient line of sight (111m) when looking towards the west.

b) Towards the East

Line of sight in excess of 350m is available when looking towards the east from the new proposed intersection.

The lack of sufficient SSD and Line of Sight is highly disconcerting, especially when combined with slow moving vehicles such as busses and heavy vehicles.

9 NEW (INTERNAL) ROAD NETWORK

9.1 CONCEPTUAL DEVELOPMENT FRAMEWORK

The proposed conceptual development framework was prepared by Zutari and makes provision for the following land uses:

Land Use	Zoning	Erf Number	Area (ha)	% of Area
Education Facility	Community Zone I	01	5.21ha	28.27%
Industry	Industrial Zone I	02-20	8.33ha	45.2%
Public Streets	Transport Zone II	21	3.70ha	20.07%
Total Area			18.43ha	100%

Table 9-1 – Metro Grounds Land Use Table

The concept layout plan clearly indicates the proposed internal road network. This plan has been attached as **ANNEXURE B**, but for ease of reference an extract of the plan has been attached as Figure 9-1 below.



Figure 9-1 – Extract of Zutari's Conceptual Development Framework Layout

From Figure 9-1, it is important to note the following:

1. The greater site development plan makes provision for two "unlisted" erven:
    a. Figure D,E,F,G,H which is the site of the existing electrical sub-station
    b. The possible Future Bus Depot site. This site does not form part of Zutari's application and will be dealt with directly by the relevant departments at George Municipality.
2. The layout makes provision for two main intersections. The first situated at the current junction of PW Botha Boulevard and Ossie Urban Street, and the second, at the future intersection with the proposed Rand Street extension.

9.2 ROAD CLASSIFICATIONS

Based on the intended function of the internal roads, they can be classified as indicated in Figure 9-2 below.



Figure 9-2 - Proposed Internal Road Classification

Road Classifications are specified in the TRH 26 South African Road Classification and Access Management Manual (Draft 2.0, May 2018). A summary of the relevant sections have been included below:

CLASS U4 URBAN COLLECTOR STREETS

Collector streets are used to penetrate local neighbourhoods with the purpose of collecting (and distributing) traffic between local streets and the arterial system. The streets are mainly intended to serve an access function with limited mobility and traffic volumes; trip lengths and continuity must be limited.

They should ideally not carry any through traffic but only traffic with an origin or destination along or near to the street. The majority of the traffic using the collector street will have a destination in the street itself or in a local street leading off the collector. A collector street must not be quicker to use to pass through an area than a mobility road although it is recognized that in the absence of a mobility route, collectors must allow for some through traffic, albeit at low speeds.

Class 4a major collectors may also be used in preference to arterials when “mixed” through and local traffic is unavoidable, such as when arterials pass commercial centres with no alternative access. In this case, the local access traffic must be favoured at the expense of the mobility function.

In terms of the TRH 26 Manual, collectors must be classified as either 4a or 4b as follows:

i) Class 4a Commercial (major) collector street

These collectors are found in areas with commercial, business, industrial, shopping and mixed-use residential developments. The streets carry a high percentage of heavy vehicle traffic and public transport.

Typical commercial collectors are CBD streets (whether two-way or one-way), shopping centre streets, activity spines and industrial distributors. Traffic volumes on the collectors vary greatly depending on their location. In busy shopping areas, the collectors can carry up to 25 000 vehicles or even more per day. The lengths of the roads should be limited to a maximum of about 2 km or 3 km if no through traffic is present.

ii) Class 4b Residential (minor) collector street

These collectors are found in residential areas and almost exclusively serve residential traffic and public transport.

Residential collectors should not carry more than about 10 000 vehicles per day or 1 000 vehicles during peak hours (although lower volumes are preferred). These volumes are the maximum that can safely be accommodated on this class of streets. If Class 4b residential collector street volumes exceed 10 000 per day, this is an indication that re-classifying the road may be required.

The lengths of the roads should be limited to a maximum of about 2 km.

CLASS U5 URBAN LOCAL STREETS

Class 5 streets provide access to individual properties. As they must provide exclusively an access or activity function, both traffic volumes and trip lengths must be significantly limited. They must not be continuous between roads of an order higher than Class 4.

Local streets should not carry any through traffic but only traffic with an origin or destination along the street, i.e. all the traffic using the local street will have a destination in the street itself.

In terms of this Manual, local streets must be classified as either 5a or 5b as follows:

i) Class 5a Commercial local street

These local streets are found in areas with commercial, business, industrial, shopping and mixed-use residential developments. The streets often carry a high percentage of heavy vehicle traffic which uses the street to access loading areas or bus stops.

Commercial local streets should not carry volumes of more than about 5 000 vehicles per day. The length of the street should be limited to a maximum of about 1 km.

ii) Class 5b Residential local street

These local streets are found in residential areas and almost exclusively serve residential traffic and possibly some public transport as well as refuse and small delivery trucks.

Residential local streets should not carry more than about 1 000 vehicles per day or 100 vehicles during peak hours. If Class 5b residential local street volumes exceed 5 000 per day, this is a criterion to classify the road as a Class 4b residential collector.

Local residential streets should be short blocks of less than 0.5 km, with one kilometre being the maximum for safety reasons.

9.3 ROADSIDE DEVELOPMENT ENVIRONMENT

The density characteristics of the various Roadside Development Environment specified in the WCG's Access Management Guidelines (2020) have been indicated in Table 9-2.

Roadside development environment	Floor Area Ratio (m^2 of development per m^2 of land area)	Bulk (m^2) Building height du/ha (pp/ha)[10]
CBD	> 1	10 000 m^2/ha @ 50% coverage = 2 × storey @ 30% coverage = 3 × storey Residential = > gross 100 du/ha (400 pp/ha)
Intermediate	0.3–1	3 000 m^2 – 10 000 m^2/ha @ 50% coverage = 1 × storey Residential = gross 25–100 du/ha (100–400 pp/ha)
Suburban	0.1–0.3	1 000 m^2 – 3 000 m^2/ha Single/double storey Residential = gross < 10 du/ha
Boundary of urban area/defined Urban Edge		
Semi-rural	< 0.1	
Rural	< 1 bldg/10 ha	

Table 9-2 - Roadside Development Environment Characteristics

Based on Table 9-2, it is envisaged that ultimate density of the Metro Ground Industrial site will result in a Roadside Development Environment classification of "**Intermediate**".

9.4 ROAD RESERVES

Road reserve widths are specified in table 8.4 of the TRH 26 as indicated in Figure 9-3.

Class	Rural		Urban	
	Typical	Range	Typical	Range
Class 1	62	60 – 80	60	60 – 120
Class 2	48	40 – 70	40	38 – 62
Class 3	30	30 – 50	30	25 – 40*
Class 4a	25	-	25	20 – 40
Class 4b			20	16 – 30
Class 5a	20	-	22	15 – 25
Class 5b			14**	10 – 16

* Reserve up to 62 m is required to allow for Strategic Bus Rapid Transit (BRT).

** Reserve of 10.5 m is typical if street is less than 100 m long.

Figure 9-3 - Road Reserve Widths

Based on the above, the actual vs proposed road reserve widths can be summarised as follows:

Road Class	TRH 26 Recommended Road Reserve Width	Zutari Proposed Road Reserve Width	Comment
Class 4a Commercial Collector	25m	30m	Zutari's Proposed Road Reserve width is deemed sufficient
Class 5a Commercial Local Street	22m	22m	Zutari's Proposed Road Reserve width is deemed sufficient

Table 9-3 - Comparison between recommended and proposed road reserve widths

9.5 DRIVEWAYS

The term “driveway” describes the intersecting roadway giving direct access to a privately-owned property adjacent to the road where such intersecting roadway is not a public road or street. A driveway is usually the only access point to the property, although it is possible that connections could be made between adjacent properties through connecting roads provided by agreement between property owners or via a servitude registered for a road access. Larger developments may take access through more than one driveway from more than one road.

The 2020 AMG lists the three categories of “conventional driveways”, defined by the number of vehicular trips generated per hour that use or are projected to use a driveway, as follows:

Domestic equivalent driveways are driveways giving vehicular access to private homes, micro businesses and farms which attract very small traffic volumes. In residential areas with small plot sizes the vehicle using the driveway may have to back into the through road when leaving the property. Domestic equivalent driveways have a small impact on the through road, but can result in conflicts where reversing manoeuvres take place into the through road. For this reason, domestic equivalent driveways are acceptable on Class 5 roads, but should be discouraged on Class 4 roads except where special provision is made for access to properties within the road reserve. This requires that there is sufficient space clear of the through traffic lanes for a vehicle reversing out of a property to manoeuvre within the road reserve so as to enter the traffic stream safely.

Low-volume driveways may carry larger traffic volumes than domestic equivalent driveways and are expected to serve larger developments. The lower volume driveway categories (domestic equivalent driveways and low-volume driveways) have no class equivalent as they generally carry lower volumes than the traffic volume carried by any class of public road.

High-volume driveways are equivalent to Class 5 local roads and are expected to carry larger traffic volumes than low-volume driveways.

Driveway category	Class equivalent	Roadside development environment				
		CBD	Intermediate	Suburban	Semi-rural	Rural
		Vehicles per hour				v.p.day
Domestic equivalent		< 5	< 5	< 5	< 5	< 5
Low-volume		5–30	5–30	5–30	5–30	5–30
High-volume	5	30–150	30–100	30–60	30–50	30–50
Equivalent collector	4	150–750	100–625	60–500	50–250	50–500
Equivalent minor arterial	3	750–1 500	625–1 250	500–1 000	250–500	500–1 000
Equivalent major arterial	2	> 1 500	> 1 250	> 1 000	> 500	> 1 000

Figure 9-4 - Categories of Driveways and threshold volumes

The WCG Access Management Guidelines (2020) provides guidelines on where driveways should be allowed for a given combination of road class and roadside development environment. The table shows that on Class 3 roads only high-volume driveways should be permitted.

Roadside development environment	Class 2 Major	Class 3 Minor			Class 4 Collector			Class 5 Local		
	LVD+HVD	DED	LVD	HVD	DED	LVD	HVD	DED	LVD	HVD
CBD										
Intermediate										
Suburban										

Figure 9-5 - Guidelines for permitting "conventional" driveways

9.6 INTERSECTION SPACING (CLASS 4 MAIN ROAD)

The guidelines published in the WCG Road Access Guidelines 2020 are proposed for the Metro Grounds development site. The minimum spacing distances are a function of the road class and level of intersection control as indicated schematically in the diagrams below:

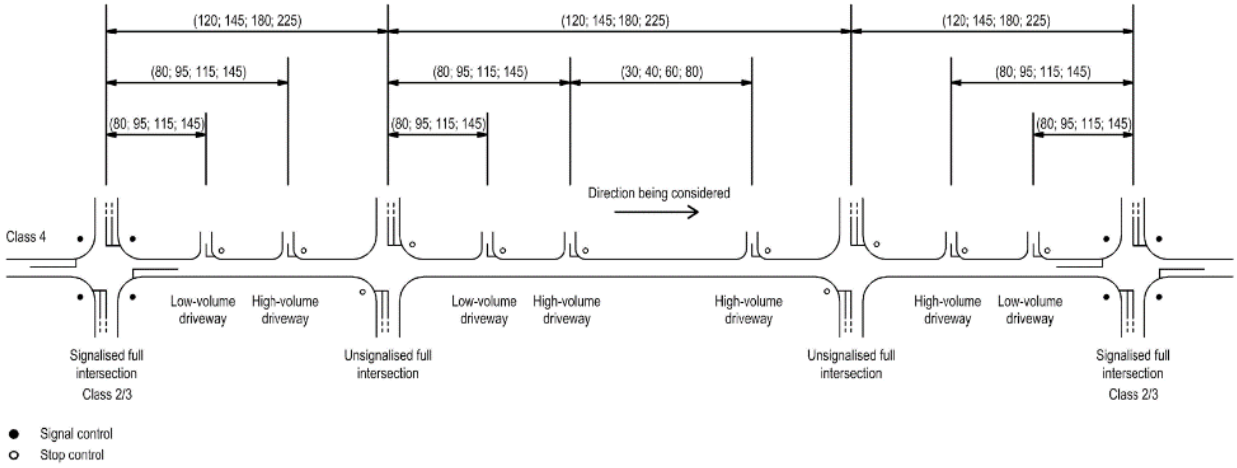


Figure 9-6 - Class 4 minimum spacing distances

Using the guidelines above, it is possible to provide the following:

1. Upgrade the existing PW Botha Boulevard/Ossie Urban Intersection into a signal controlled, full intersection.
2. Provide direct access into both the bus depot and education site via a signal controlled full intersection. This intersection must be situated 270m from the existing PW Botha Boulevard/Ossie Urban Intersection.
3. Unsignalised Full Intersections on the two intersections with the minor (Class 5) roads.
4. Provide a signal-controlled intersection at the junction of Rand Road Extension and the future Metro Grounds Main Road.

   This proposed layout has been indicated schematically in Figure 9-7, and a layout plan has been attached as **ANNEXURE C**)

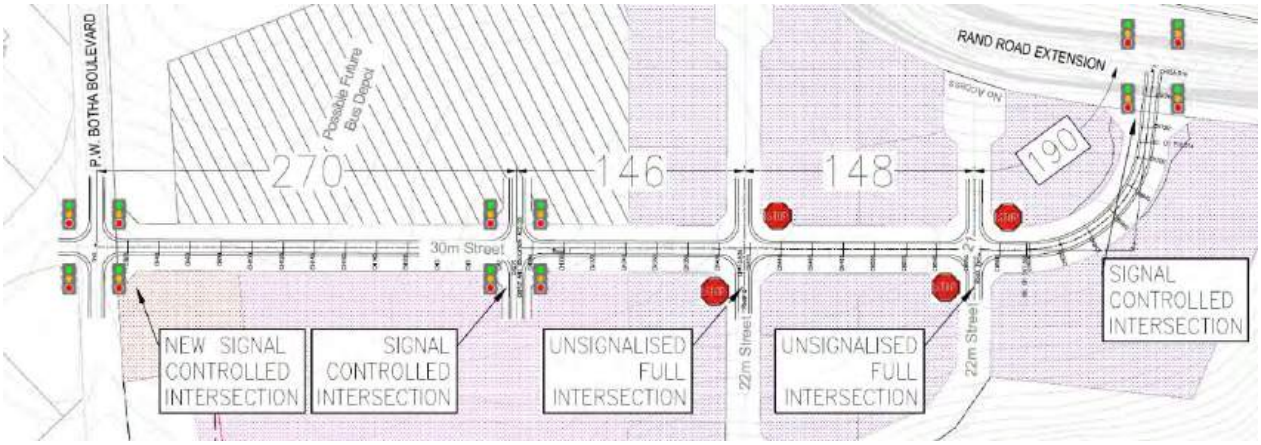


Figure 9-7 Proposed Internal Road Intersection Control

Since the proposed signal-controlled intersection at the junction of Rand Road Extension and the future Metro Grounds Main Road can only be implemented after both roads have been constructed, an interim solution is to provide a temporary turning circle at the end of Metro Grounds Main Road. A preliminary design of this circle has been prepared by Zutari and has been attached as **ANNEXURE D** to this report.

9.7 DRIVEWAY POSITIONS (CLASS 5 ROADS)

High and low volume driveway on the Class 5 roads must comply to spacing requirements indicated in Figure 9-8 below.

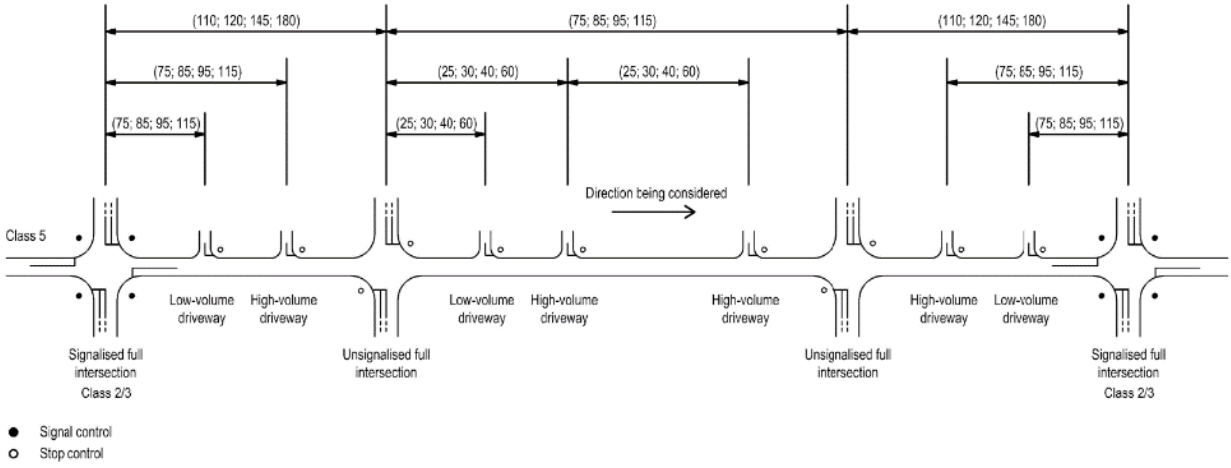


Figure 9-8 - Class 5 minimum spacing distances

Using Figure 9-8 as reference, the site access (driveway) positions must comply to the positions indicated in Figure 9-9 (refer to **ANNEXURE C** for a layout plan).

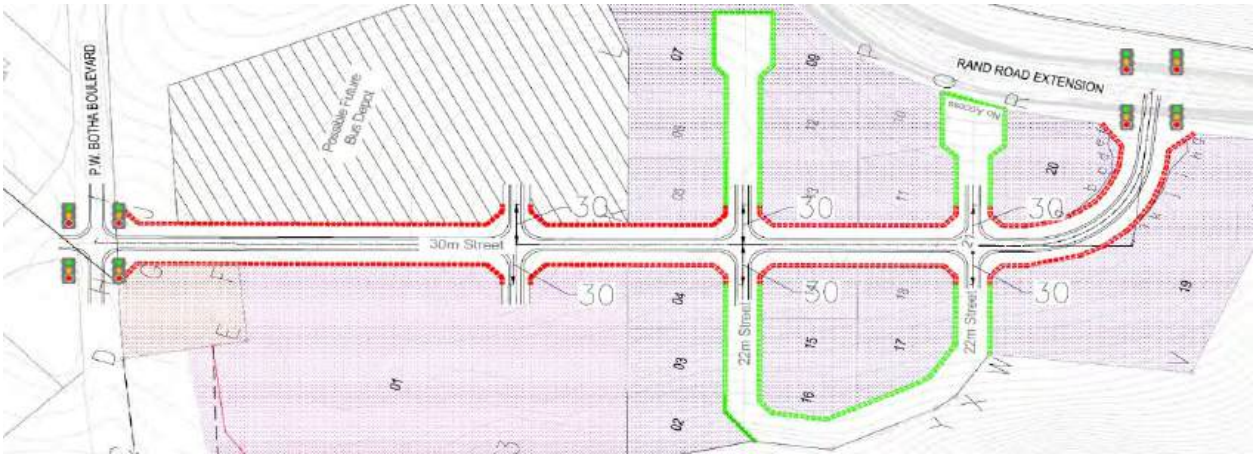


Figure 9-9 - Driveway Positions

9.8 HORIZONTAL CURVATURE

Based on both the UTG 1 (Geometric Design of Urban Arterial Roads) and UTG 5 (Geometric Design of Urban Collector Roads) guidelines, the recommended design practice is to use large radius curves without superelevation as far as possible. However, where large radius curves are not possible, superelevation can be introduced to offset the side friction forces of smaller radius curves. The following table should be used as guideline:

Minimum Radius for Horizontal Curves (m)						
Design Speed (Km/h)	Side Friction Factor (f)	Minimum radius for maximum superelevation rates (e)				
		-0.02	0	+0.02	+0.04	+0.06
60	0.15	220	190	170	150	135
80	0.14	425	365	315	280	255
100	0.13	-	610	530	465	420

Table 9-4 - Minimum Radius for Horizontal Curves

9.9 VERTICAL CURVES

The minimum rate of vertical curvature is determined by sight distance as well as by considerations of comfort of operation and aesthetics. The sight distance most frequently employed is the stopping sight distance measured from an eye height of 1.05m to an object height of 0.15m. In the case of sag curves, the sight distance is replaced by headlight illumination distance of the same magnitude, assuming headlight height of 0.6m and a divergence angle equal to 1 degree above the longitudinal axis of the headlights. Based on both the UTG 1 (Geometric Design of Urban Arterial Roads) and UTG 5 (Geometric Design of Urban Collector Roads) guidelines, values of K (based on stopping sight distance in the case of crest curves and headlight illumination distance in the case of sag curves) are given in Table 9-5

Minimum Values of K for Vertical Curves				
Design Speed (Km/h)	Stopping sight Distance (m)	Crest	K	
			Sag	
			Headlight	Comfort
60	80	16	17	8
80	115	33	31	16
100	155	60	52	25
120	210	110	60	30

Table 9-5 - Minimum Values of K for Vertical Curves

The minimum lengths of vertical curves are indicated in Table 9-6 below:

Minimum lengths of vertical curves	
Design Speed (km/h)	Length of Curve (m)
60	100
80	140
100	180
120	220

Table 9-6 - Minimum lengths of vertical curves

9.10 MAXIMUM AND MINIMUM GRADIENTS

The speed of passenger cars is relatively unaffected by gradient and the horizontal alignment will tend to govern the selection of speed. Truck speeds are however markedly affected by gradient. Both the UTG 1 (Geometric Design of Urban Arterial Roads) and UTG 5 (Geometric Design of Urban Collector Roads) provide guidelines with regards to the maximum gradients for different speeds and types of topography. Even though these documents are guidelines only and factors such as provision of auxiliary lanes and whole life economy of the road may suggest some other gradient, it is important that the geometric road designs adhere to these recommendations as far as possible

Where two roads intersect, the numerical sum of the gradients should not exceed 8% with a maximum gradient of 6% on either roadway.

In order to ensure effective stormwater flow, a minimum gradient of 1:200 (0.5%) should be adhered to as far as possible.

9.11 PARKING PROVISION

The George Integrated Zoning Scheme By-Law (2023) should be used to determine he parking requirements of the various land uses. It is important to note that the GIZSBL does not make provision for on-street parking and parking should be provided on the property for which parking is required.

SITE ACCESS AND EXIT

Based on the GIZSBL, vehicle entrances and exit ways to and from a property must conform to the following requirements:

1) The Municipality may require compliance with standard municipal or provincial access spacing guidelines.
2) No access may be closer than 10 metres from an intersection as defined by the prolongation of street boundaries, except for industrial-zoned properties, where the distance must be 15 metres.
3) The Municipality may restrict or prohibit access if a pedestrian or traffic hazard is created or is likely to be created.
4) Vehicle entrances and exit ways to and from a property must conform to the following requirements:
   a) motor vehicle carriageway crossings must be limited to one per site per proclaimed street, public street or private road abutting the site;
   b) despite paragraph (a), where the total length of any street boundary of a site is 30 metres in length or more, one additional carriageway crossing may be permitted, provided that no two carriageway crossings are closer than 12 metres to each other;
   c) the minimum and maximum widths of motor vehicle carriageway crossings must be in accordance with the table, titled "Width of motor vehicle carriageway crossings" as measured on the street boundary, where a single carriageway crossing means the crossing may only be used as either an entrance or an exit only, not both, and a combined carriageway crossing means that the crossing can be used for both an entrance and an exit;
   d) the minimum width of a panhandle access may not be less than 4 metres wide unless otherwise determined by the Municipality. Width of motor vehicle carriageway crossing must comply to the table below:

Type of carriageway crossing	Minimum width	Maximum width
Dwelling units	2.5 metres	8.0 metres
Single entrance or exit way for other land uses	2.5 metres	4.0 metres
Combined entrance and exit way for other land uses	5.0 metres	8.0 metres

PARKING LAYOUT REQUIREMENTS

The following parking layout requirements apply unless otherwise stated in the zoning scheme:

a) parking layout configurations, minimum dimensions and ramps to a parking area must be in accordance with this zoning scheme or an approved site development plan;
b) A standard 90-degree parking bay for a motor vehicle shall measure at least 2,5 metres in width and 5.0 metres in length with 7.5 metres manoeuvring space or otherwise determined by the Municipality;

c) the layout of any parking area, except for parking in Single Residential Zone I, Single Residential Zone III and General Residential Zones I to III must ensure that vehicles can readily leave the site without reversing across the sidewalk, unless otherwise approved by the Municipality;

d) a tandem bay accommodating two motor vehicles is regarded as one bay for the purposes of this zoning scheme, except for Single Residential Zone I, Single Residential Zone III and General Residential Zones I to III, where a tandem bay is regarded as two bays;

e) visitor parking bays must be clearly demarcated, readily visible and accessible to visitors, and preferably grouped together;

f) parking areas must be used for the parking of vehicles which are lawfully allowed on them, and any activity which causes an obstruction for vehicular traffic or pedestrian use of the sidewalk is prohibited;

g) parking areas must be constructed and maintained in a state suitable for the parking and movement of vehicles;

h) control of access to and reservation of parking bays and / or areas is not permitted unless written approval has been obtained from the Municipality; either through an approved site development plan or other written approval; and

i) despite paragraphs (a) to (h), the Municipality may lay down more restrictive requirements related to parking, site access or motor vehicle carriageway crossing, if it considers this to be necessary from a pedestrian or traffic safety point of view.

9.12 PEDESTRIAN WALKWAYS AND FURNITURE ZONES

Where practically possible, the walkway should not be placed directly up against the road edge, but a furniture zone should be created between the road edge and the sidewalk, increasing the safety of those making use of the walkways. This notion is further advocated in The Neighborhood Planning and Design Guide (Department of Human Settlements, July 2019) also known as “The Red Book” in which the cross section included as Figure 9-10 is proposed.

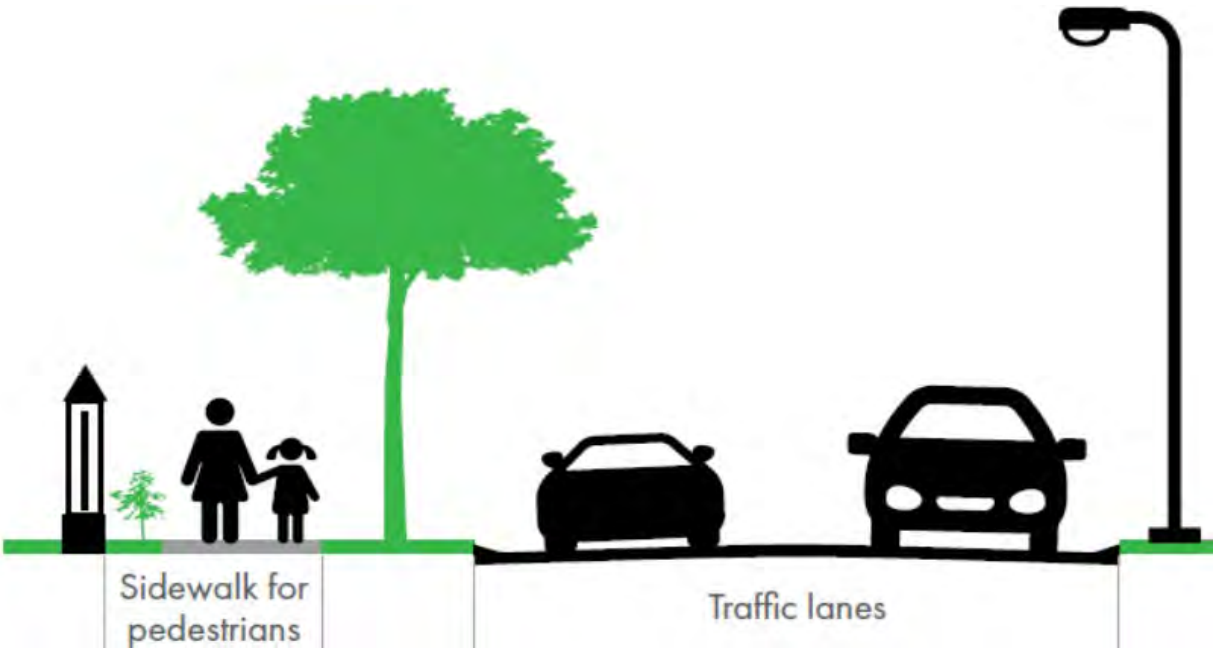


Figure 9-10 - Proposed Cross Section

10 SUMMARY

1) Urban Engineering (Pty) Ltd was appointed by Zutari for the Traffic Impact Assessment pertaining to a proposed industrial development (referred to as Metro Grounds) on remainder of Erf 464, George
2) The objective of this assessment is to evaluate and advise on the proposed internal road network planning aspects like layout, reserve widths, and intersections to ensure high-level functionality and safety.
3) Various historic TIA's pertaining to the proposed Meto Grounds development have been produced to date. The reports are listed below:
   a) Transport Impact Statement (TIS) pertaining to: Proposed Permanent Bus Depot (Borcherds) on a Portion of Erf 464 George, (EJ Robertson Consultants, unreferenced, August 2011)
   b) Traffic Impact Assessment (TIA) pertaining to: Proposed Development on Erf 464 (Metro Grounds) George, (SMEC Report Nr. C1461-Rev02, February 2015)
   c) Traffic Impact Assessment (TIA) pertaining to: Proposed Permanent Bus Depot on Portion of Erf 464, George. (Zutari Report Nr 1001403-0000-REP-KR-00001-1) Revision (Draft 2), dated 2021/09/14.
4) This assessment, which focused on the master planning context of roads, including functionality, connectivity, and access, was based on the Zutari TIA dated 2021/09/14.
5) The Zutari TIA included traffic counts and detailed intersection analysis to reach the following recommendations:

   Intersection of PW Botha Boulevard and York Street

   a) Improve Signal Timing
   b) Short exit lane into PW Botha Blvd
   c) Reconfiguration of York Southern Approach
   d) Additional left turn lane on PWBB eastern approach

   Intersection of PW Botha Boulevard and Ossie Urban Street

   e) Introduce dedicated Right Turn Lane for East bound traffic

   Intersection of PW Botha Boulevard and Rand Street

   f) Convert to roundabout

   Intersection of PW Botha Boulevard and Nelson Mandela Boulevard

   g) No Improvements required

6) An inspection of the site revealed unacceptable poor Shoulder Sight Distance at the PW Botha Boulevard/ Ossie Urban Intersection.
7) Analysis of the internal road network indicates that the proposed junctions are perfectly spaced in terms of the guidelines published in the Western Cape's Access Management Guidelines (2020).

11 RECOMMENDATIONS

Based on the findings of this report, the following recommendations are made:

1. The intersection of PW Botha Blvd/Rand Street should remain a signalised intersection.
   1.1. Despite the recommendation in the Zutari TIA (*Proposed Permanent Bus Depot on Portion of Erf 464, George; Report Nr 1001403-0000-REP-KR-00001-1; Draft 2; dated 2021/09/14*) suggesting the upgrade of the PW Botha Boulevard/Rand Street Intersection to a roundabout, it is the opinion of this author that a signalised intersection would be a safer alternative due to the limited line of sight. Additionally, a signalised junction offers the potential for establishing a synchronized corridor between the existing signalised intersections at PW Botha Blvd/York Str and PW Botha Blvd/Nelson Mandela Blvd.
   1.2. This recommendation should be proposed to the authors of the Zutari report for consideration and comment.
2. The junction of PW Botha Blvd & Ossie Urban Str should be upgraded to a signalised intersection.
   2.1. Contradictory to the Zutari TIA, it is the recommendation of this investigation to convert the PW Botha Blvd/Ossie Urban intersection into a signalised intersection. Once again, the introduction of a signalized intersection provides the opportunity to create a synchronised corridor and also mitigates the lack of sufficient sight lines and shoulder sight distances.
   2.2. This recommendation should be proposed to the authors of the Zutari report for consideration and comment.
3. All other recommendations in the Zutari TIA should be adhered to.
4. Intersection controls for internal roads must comply to Drawing 22-158-01 (**ANNEXURE C)**
   4.1. Access to the proposed bus depot and education facility should be provided by means of a signalised intersection, located exactly as indicated in Drawing 22-158-01 (**ANNEXURE C**).
   4.2. The intersection of Metro Ground Main Road (Ossie Urban Extension) and Rand Street Extension should be signal controlled as shown in Drawing 22-158-01 (**ANNEXURE C**). If Metro Ground Main Road is built before Rand Street Extension, a turning circle (**ANNEXURE D**) must be provided at its end. Once Rand Street Extension reaches the Metro Ground Main Road intersection, the turning circle should be replaced with a signalized intersection.
   4.3. Junctions between the Class 4 and Class 5 roads should be 2-way STOP controlled, with priority movement along the Class 4 road (Metro Ground Main Road)
5. As indicated in Drawing 22-158-02 (**ANNEXURE C**) no driveway access should be allowed from the Metro Ground Main road onto any neighbouring property.
6. Provision should be made for UA compliant sidewalks next to all new roads. These sidewalks must include a landscaped (grassed) furniture zone between the road edge and the sidewalk.
7. Since the proposed Metro Grounds Development includes an educational facility, provision should be made for new UA compliant pedestrian sidewalks next to PW Botha Boulevard, all the way from York Street to Nelson Mandela Boulevard. These sidewalks must include a landscaped (grassed) furniture zone between the road edge and the sidewalk.
8. Provision should be made for street lighting next to all new internal Metro Grounds roads.
9. Cross sections of all new Metro Ground internal roads must make provision for clearly defined (Class 1 preferred but Class 3 as a minimum) bicycle routes/lanes. Road layouts must also include safe bicycle crossing areas at all intersections.
10. Geometric design of Metro Grounds internal roads must comply to the various guidelines and standards with regards to horizontal and vertical alignments.

ANNEXURE A

PHOTOS TAKEN DURING SITE INSPECTIONS












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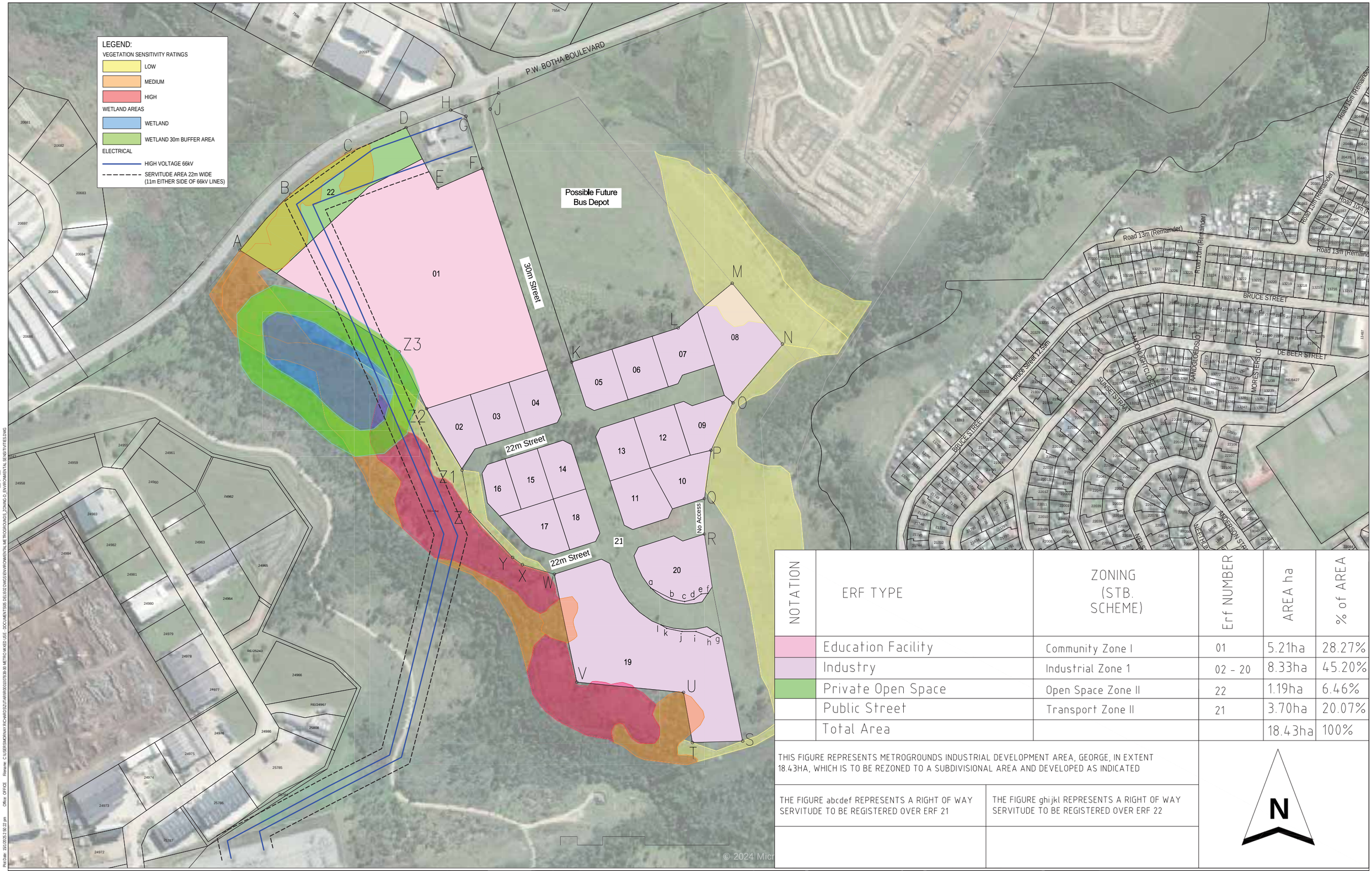






ANNEXURE B

ZUTARI CONCEPTUAL DEVELOPMENT FRAMEWORK



NOTATION	ERF TYPE	ZONING (STB. SCHEME)	Erf NUMBER	AREA ha	% of AREA
	Education Facility	Community Zone I	01	5.21ha	28.27%
	Industry	Industrial Zone 1	02 - 20	8.33ha	45.20%
	Private Open Space	Open Space Zone II	22	1.19ha	6.46%
	Public Street	Transport Zone II	21	3.70ha	20.07%
	Total Area			18.43ha	100%

THIS FIGURE REPRESENTS METROGROUNDS INDUSTRIAL DEVELOPMENT AREA, GEORGE, IN EXTENT 18.43HA, WHICH IS TO BE REZONED TO A SUBDIVISIONAL AREA AND DEVELOPED AS INDICATED

THE FIGURE abcdef REPRESENTS A RIGHT OF WAY SERVITUDE TO BE REGISTERED OVER ERF 21

THE FIGURE ghijkl REPRESENTS A RIGHT OF WAY SERVITUDE TO BE REGISTERED OVER ERF 22

N

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REV	DATE	REVISION DETAILS	APPROVED
A	11/7/2024	Zoning Drawing	R Schroder
B	2/12/2024	Layouts adjusted to exclude environmental sensitive areas	R Schroder
C	3/12/2024	Overhead Powerlines added and layout amended	R Schroder
D	14/1/2025	High and Medium Voltage lines added from Client Information	R Schroder

SCALE: 1 : 2000 | SIZE: A1
DRAWN: M Richards
DESIGNED: A Florence-Brander
REVIEWED: R SCHRODER

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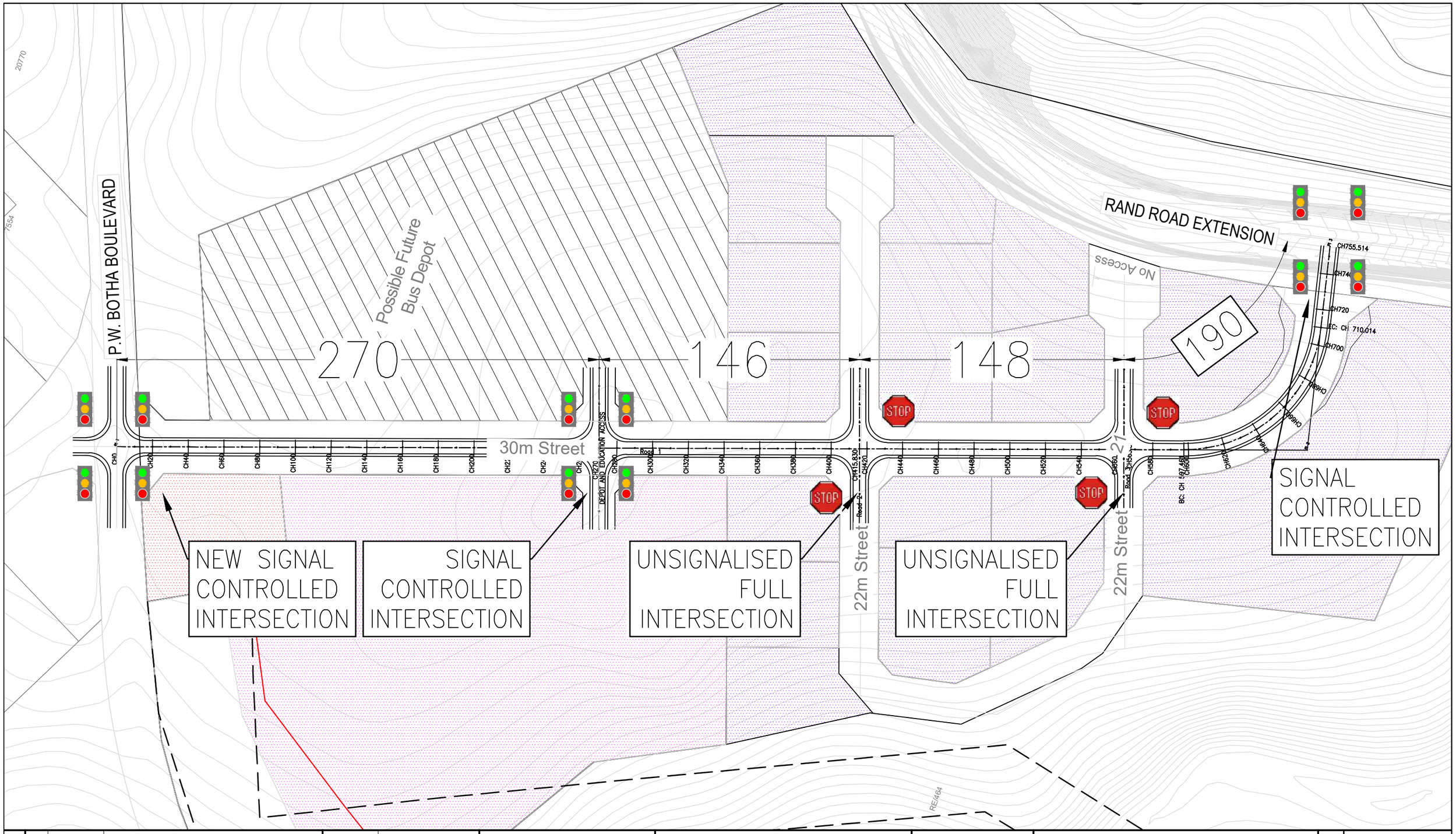
APPROVED
DATE
R Schroder

PROJECT: METROGROUNDS: INDUSTRIAL DEVELOPMENT
TITLE: Zoning Drawing
DRAWING No.: PROJECT No. 1002372 – WBS 0000 – TYPE DRG – DISC CC – NUMBER 0001 – REV D

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ANNEXURE C

DRAWINGS



Revisions	No.	Date	Description
	0	05/06/2024	FOR TIA PURPOSES
	1	21/02/2025	FOR TIA PURPOSES – UPDATED LAYOUT

Designed	F van AARDT (Pr Eng)
Checked	F van AARDT (Pr Eng)
Drawn	F van AARDT (Pr Eng)
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CONSULTING CIVIL AND STRUCTURAL ENGINEERS

METROGROUNDS
PROPOSED INTERSECTION CONFIGURATION

A3 | Scale NTS

Drawing No. 22-158-01

Rev No. 01

LEGEND

NO SITE ACCESS (DRIVEWAYS) ALLOWED

SITE ACCESS (DRIVEWAYS) ALLOWED

P.W. BOTHA BOULEVARD

RAND ROAD EXTENSION

Possible Future Bus Depot

30m Street

22m Street

22m Street

No Access

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22

30 30 30 30 30 30

A B C D E F a b c d e f g h i j k l m n

Revisions	No.	Date	Description
	0	05/06/2024	FOR TIA PURPOSES
	1	21/02/2025	FOR TIA PURPOSES – UPDATED LAYOUT

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Checked	F van AARDT (Pr Eng)
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METROGROUNDS DRIVEWAY LOCATIONS

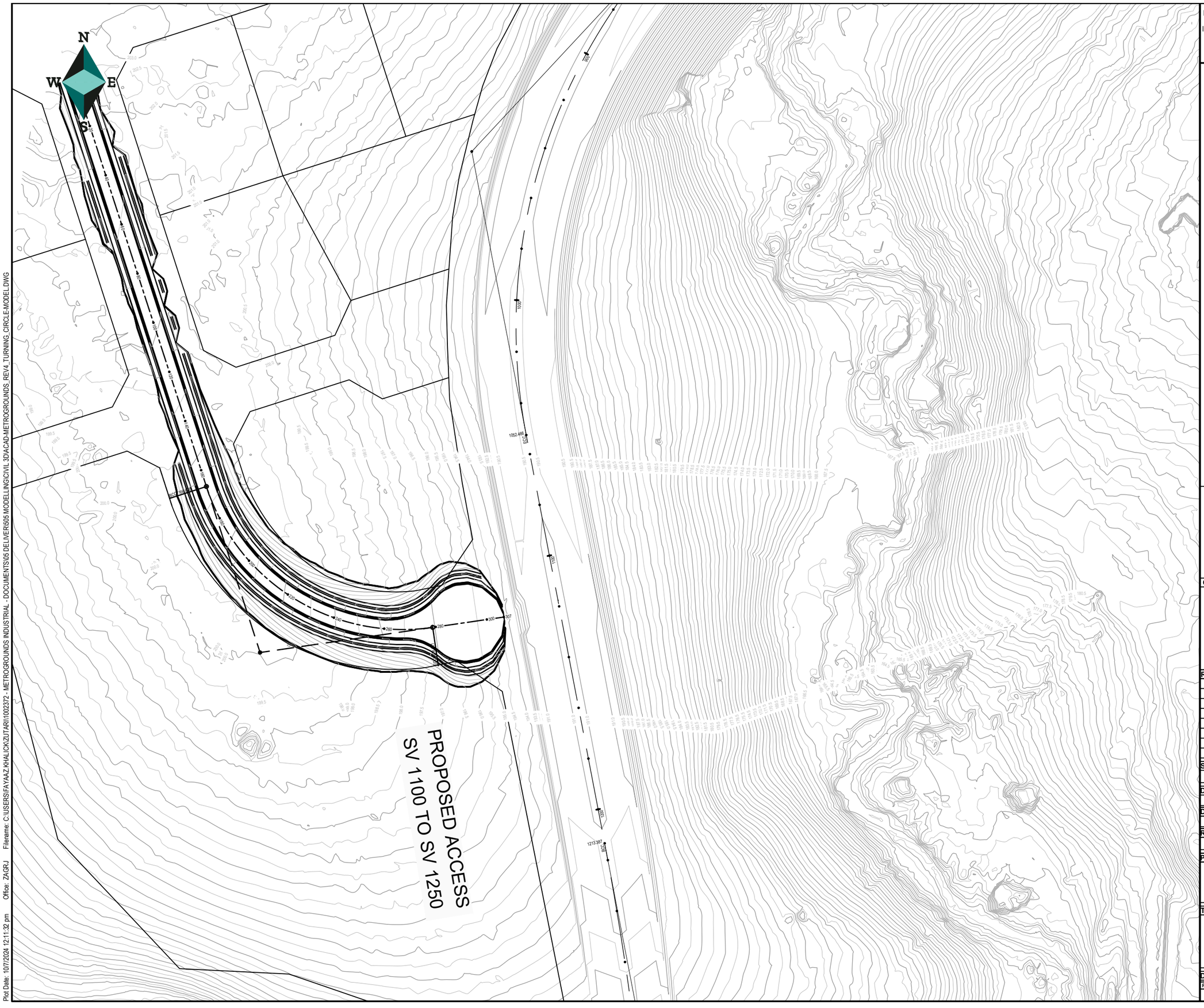
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Drawing No. 22–158–02

Rev No. 01

ANNEXURE D

ZUTARI CONCEPT TURNING CIRCLE PLAN



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DATE

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PROJECT

TITLE

DRAWING NUMBER

PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
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Annexure 12:
TRAFFIC IMPACT ASSESSMENT (September 2021)

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GEORGE INTEGRATED PUBLIC TRANSPORT NETWORK

PROPOSED PERMANENT BUS DEPOT ON PORTION OF ERF 464, GEORGE

Traffic Impact Assessment

George Municipality

Document control record

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Client contact			**Client reference**			
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Current revision	1					

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Author signature			Approver signature	
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Title	Traffic Engineer	Traffic Engineer	Title	Technical Director

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1 Introduction

1.1 Background

The existing temporary GIPTN GO-GEORGE bus depot is in York Street on Erf 3472. This property is owned by the Provincial Department of Transport and Public Works. The original agreement was that the site would be used for bus operations for some three years after 2014 as the land had been earmarked for other development. However, the site has now been occupied by the George Link since operations started in 2014 and is of insufficient size to accommodate the anticipated growth in the number of buses required in the fleet. A permanent location for the bus depot has been identified in PW Botha Boulevard (PWBB) on Erf 464.

1.2 Purpose

The purpose of this report is to identify the potential traffic and transport impact the proposed depot will have on the road network in the immediate vicinity of the permanent depot. It will also identify constraints and make recommendations on any traffic mitigation measures. This report is an update to the earlier version[1] submitted in 2011 by EJR Consultants.

2 Study area

2.1 Locality

The site selected for the permanent depot is in the Borcherds Industrial area, adjacent to PWBB. It is approximately 4.6 ha in extent and is owned by the George Municipality. The locality can be seen in Figure 1 below. According to the George Spatial Development Framework (SDF) this land is earmarked for industrial development.



Figure 1: Future Permanent depot locality

[1] GIPTN: Proposed Depot on Portion of Erf 464, George – TIS (Aug 2011), EJR Consultants

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2.2 Road Network

PWBB is classified as a Class 3 District Distributer, currently a single carriageway (one lane per direction) with no shoulders, and sidewalks varying between paved and gravel.

Figure 2 shows the road network and the proposed road classification by Zutari (then Aurecon) in 2017. Dotted lines indicate the planned road network changes. Network changes in the vicinity of the depot are:

- The proposed extension of PW Botha to the R102
- The proposed extension of Rand Street southward to the N2.

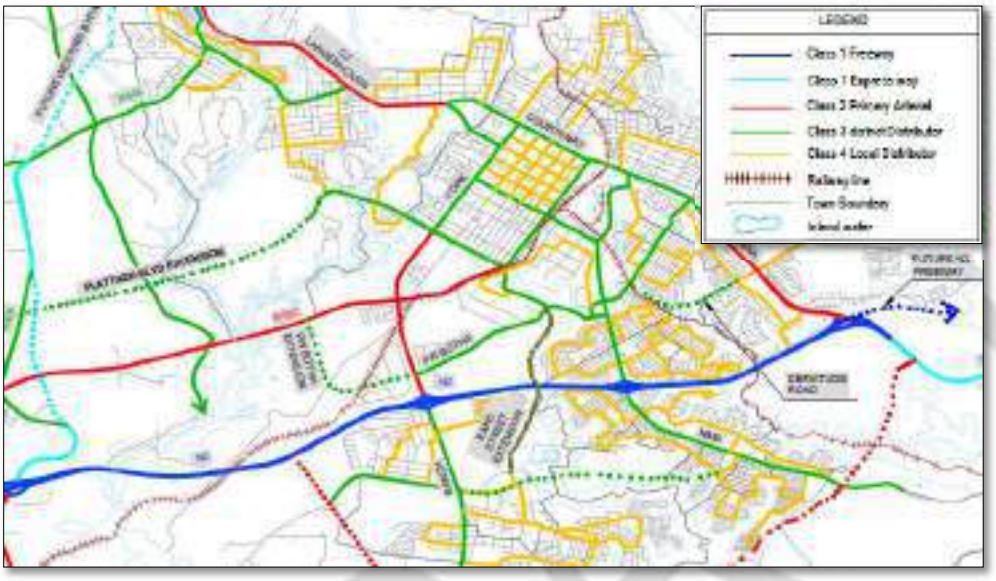


Figure 2: George road classification network

2.3 Existing / Future Land Use

As indicated in Figure 3, which is an extract from the George SDF, Erf 464 is currently zoned as Industrial. The current zoning has lapsed, and the Municipality of George is currently in the process of reapplying for the land to be rezoned

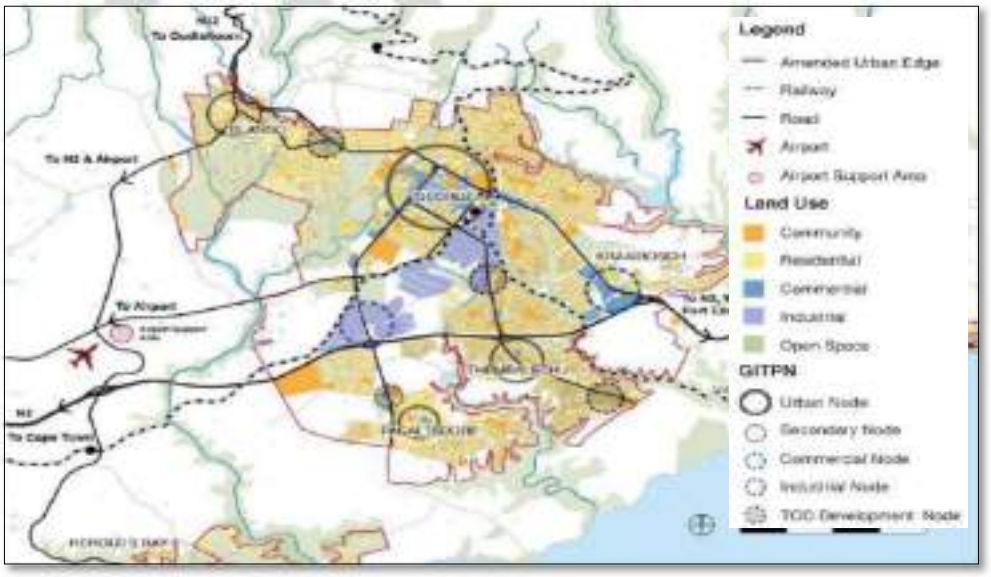


Figure 3: The Existing Spatial Structure of the George City Area: Land Use Zoning, Nodal Activity Centres and Primary Movement Network

2.4 Study Intersections

The intersections in the vicinity of the proposed development are listed in Table 1.

Table 1: Study intersections along PW Botha

Intersection	Intersection	Control Type
01	York / Discovery / PWBB	Signalized
02	Pearl / PWBB	Priority controlled E-W
03	Ossie Urban / PWBB	Signalized
04	Ossie Urban / PWBB	Priority controlled E-W
05	Meul / PWBB	Priority controlled E-W
06	Abbattoir / PWBB	Priority controlled E-W
07	Rand / PWBB	Priority controlled E-W
08	Andries / PWBB	Priority controlled E-W
09	Binne / PWBB	Priority controlled E-W
10	Nelson Mandela Blvd. (NMB) / PWBB	Signalized



As seen in Figure 4, intersections 2, 5, 6, 8 and 9 are minor intersections and the impact of the proposed development on these intersections are expected to be minimal.

These intersections will therefore not be considered in this report. The study intersections analysed in this report are:

- Intersection 01: York / Discovery / PW Botha intersection is a signalised intersection.
- Intersection 04: Ossie Urban / PW Botha intersection is a two-way stop controlled intersection with the minor approaches (northern and southern approaches) stop controlled.
- Intersection 07: Rand / PW Botha intersection is a two-way stop controlled intersection with the minor approaches (northern and southern approaches) stop controlled.

► Intersection 10: NMB / PWBB intersection is a signalised intersection.

Intersection 3, a signalised intersection, was also analysed but there was no change to the LOS (A) and therefore this intersection was not included in the detailed analysis in this report.

2.5 Other developments

The land adjacent to the proposed depot site is undeveloped. However, information received from the George Municipality indicated that this land is earmarked to be developed. The extent of the proposed industrial and residential developments, as well as the extension of Rand Street, is shown in Figure 5.

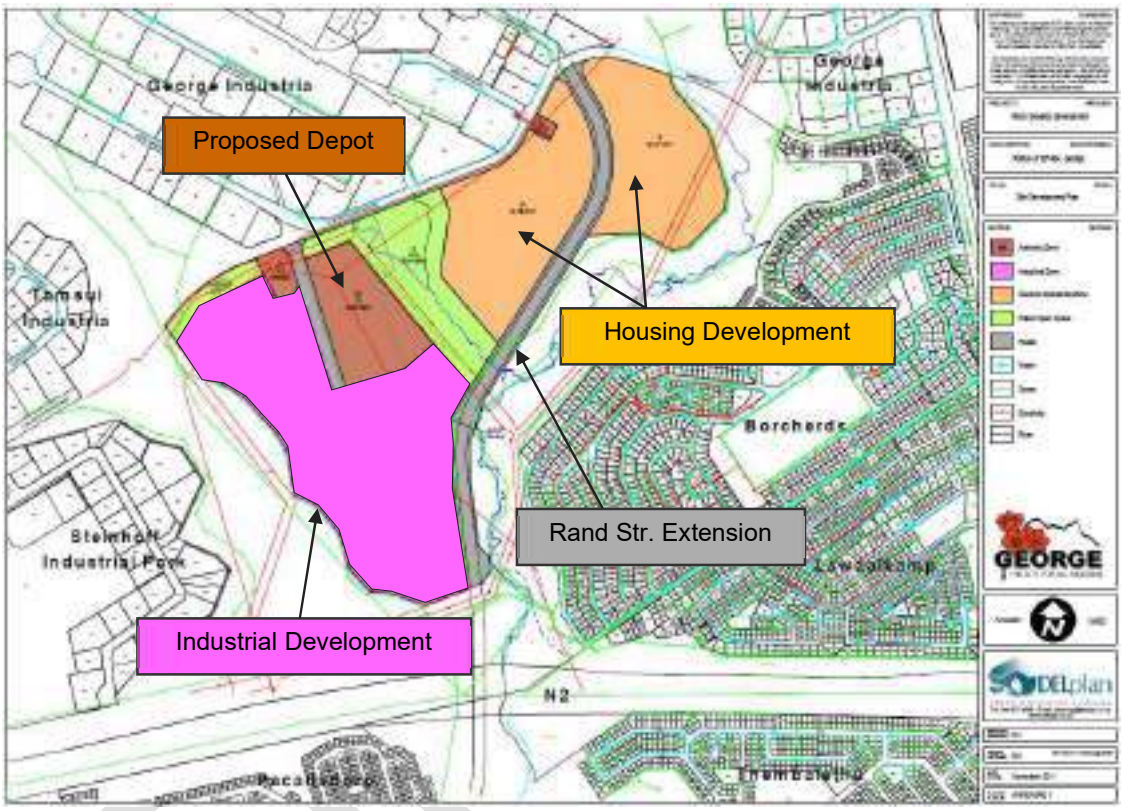


Figure 5: Proposed Future developments along PWBB

This report considers the developments highlighted in Figure 5 and their combined impact on the intersections. For the purposes of this report, it is assumed that the implementation year of these developments is 2025.

3 Methodology

3.1 Network Traffic Counts

Travel patterns were significantly impacted by the Covid-19 pandemic. Research indicates that travel patterns have not yet recovered and that traffic volumes are still lower than those pre-Covid (**https://www.google.com/covid19/mobility/**). This report therefor assumes that the 2021 traffic volumes along PWBB are similar to those counted in 2019 (0% growth rate between 2019 and 2021).

The 2019 traffic counts at intersections along PWBB were used to calculate the peak hours of the road network in the vicinity of the depot and to investigate how the study intersections will operate under the existing and future traffic conditions.

3.2 Bus Depot Traffic Counts

Gate control sheets obtained from the existing depot management were used to determine the total number of GO GEORGE buses entering and leaving the existing depot on the 19th, 20th and 21st of July 2021 between 4am and 8pm. These dates were weekdays outside of school holiday period and considered to reflect normal bus operations. This data was used to estimate the trip generation rate of the proposed bus depot for different hours of the day:

- **Network peak hour**: the hour of the day when the traffic along PWBB is at its highest (network AM and PM peak hour).
- **Depot peak hour**: The hour in which the sum of the trips in and out of the depot is at a maximum.
- **Peak hour for trips out of the depot:** This is the hour in which the trips leaving the depot are at a maximum.

3.3 Traffic Growth

Table 2 below provides typical growth factors for low, average and above average growth areas.

Table 2: Typical traffic growth rate factors (Source: TMH 17)

Development Area	Growth Rate
Low growth areas	0 – 3%
Average growth areas	3 – 4%
Above average growth areas	4 – 6%
Fast growing areas	6 – 8%
Exceptionally high growth areas	>8%

Considering the potential of development in the Borcherds / Industrial area and the expected roll out of Phases 4A, 5, 6 and 7 of the GOGEORGE system, it was assumed that an annual growth rate of 2.5% would be realistic. This growth rate was applied to estimate the future background traffic. Other future development traffic and the impact there of on the road network will be further analysed in Section 10.

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3.4 Analysis Scenarios

Using the AM and PM peak hour traffic along PWBB, as well as the trips generated by the bus depot, six scenarios were identified to be analysed in SIDRA. The analysis scenarios were selected based on the guidelines provided by the Department of Transport Traffic Impact Studies.

As with the previous report[1], this report assumes that the depot will be in operation by 2025.

The following scenarios were analysed:

- **2021 Base Year:** This scenario represents the existing traffic conditions in 2021 based on the traffic counts obtained in 2019.
- **2025 Implementation Year:** This scenario represents the 2021 base year traffic, escalated for 4 years at 2.5% per annum to estimate the traffic volumes in the implementation year.
- **2030 Future Year:** This scenario represents the 2021 base year, escalated for 9 years at 2.5% per annum to estimate the traffic volumes in the future year.
- **2025 Implementation Year + Depot Traffic**: This scenario represents the 2025 implementation year background traffic plus the traffic generated by the proposed depot.
- **2030 Future Year + Depot Traffic:** This scenario represents the 2030 future year background traffic plus the traffic generated by the proposed depot.
- **2025 Future Year + Depot Traffic + Other developments:** This scenario represents the 2025 future year traffic plus the traffic generated by the proposed depot and other developments in the area.

3.5 Analysis Criteria

The impact of the proposed development on the capacity and operation were analysed per turning movement at the four study intersections using SIDRA software.

SIDRA reports on the following aspects:

3.5.1 Level of Service (LOS)

Letters A to F, are used to indicate different LOS. LOS A indicating very low traffic flows with correspondingly low delays. LOS F reflects conditions where traffic demand exceed capacity and traffic experiences congestion and delays. Generally, LOS A to D is considered acceptable and LOS E and F unacceptable.

As reflected in Table 3 below, the acceptable LOS limit for a Class 3 road such as PWBB is LOS C.

Table 3: Acceptable intersection level of service for normal and abnormal days (Source: TMH16, Volume 2)

Are/Road Class	Normal Days	Abnormal Days
Urban	LOS D	LOS E
Rural Classes 3 - 5	LOS C	LOS D
Rural Classes 1 - 2	LOS B	LOS C

As SIDRA doesn't provide an overall intersection LOS for Two Way Stop Controlled (TWSC) intersections (Intersections 04 and 07), these intersections will be evaluated using the average delay parameters provided in Table 4.

3.5.2 Average Delay per Vehicle (Seconds)

The average delay per vehicle is the delay in seconds that a motorist is likely to experience on an approach to an intersection, while waiting for the intersection to clear or other vehicles to manoeuvre.

The expected LOS for stop controlled and signalised intersections, given a maximum and minimum delay, are reflected in Table 4.

Table 4: Average delay per vehicle criteria per level of service

LEVEL OF SERVICE (LOS)	INTERSECTION TYPE	
	SIGNALS and TRAFFIC CIRCLES (Delay in Seconds)	STOP and YIELD CONTROLLED (Delay in Seconds)
A	d < 10	d < 10
B	10 < d < 20	10 < d < 15
C	20 < d < 35	15 < d < 25
D	35 < d < 55	25 < d < 35
E	55 < d < 80	35 < d < 50
F	80 < d	50 < d

3.5.3 Degree of Saturation (Volume over Capacity 'v/c' ratio)

As the name implies, the volume over capacity ratio is the traffic demand volume divided by the available capacity of the road segment. Generally, ratios up to 0.9 are acceptable with a v/c ratio of 1.0 being the maximum.

3.5.4 Link Capacity

The capacity of sections of PWBB will be evaluated. The link capacity of a Class 3 Minor Arterial under interrupted flow conditions was assumed to be 900 veh/h/lane.

3.6 Trip Generation

The Trip Data Manual (TMH) 17 makes no reference to a bus depot as a land use type and therefor does not provide a trip generation rate for such a facility. Data captured on the gate control sheets, obtained from the existing depot management, was used to estimate the trip generation rate of the proposed bus depot.

Important to note is that the peak hour of the bus depot operations does not coincide the with peak hour of the adjacent road network. The depot's peak hour is earlier (in the AM) and later (in the PM) than the adjacent road network. The bus depot trip generation rate was therefore calculated for the road network (PWBB) peak hour and for the bus depot peak hour.

- **Network Peak Hour:** 07:00 – 08:00 and 16:15 – 17:15

The trips calculated for the network peak hour as reflected in Table 5 below will be used as depot development traffic for the analysis of all intersections in 2025 and 2030

Table 5: Trips generated by depot development during network peak hour

Land Use	Size	Unit	Trip Rate		AM		PM		Split In/Out	
			AM	PM	IN	OUT	IN	OUT	AM	PM
Depot	120	buses	0.15	0.39	11	8	19	28	75:25	40:60
Offices	8	sqm	2.10	2.10	13	2	3	13	85:15	20:80
					25	**11**	**23**	**41**		
				TOTAL	**36**		**64**			

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► **Depot peak hour** : 08:15 – 09:15 and 14:45 – 15:45

As stated, the depot peak hour does not coincide with the network peak hour. The trips calculated for the depot peak hour as reflected in Table 6 will be used to analyse the impact of the depot traffic on the queue lengths at Intersection 04 and whether or not turning slots along PWBB are warranted.

Table 6: Trips generated by depot development during depot peak hour

Land Use	Size	Unit	Trip Rate		AM		PM		Split In/Out	
			AM	PM	IN	OUT	IN	OUT	AM	PM
Depot	120	buses	0.78	0.72	57	38	34	51	60:40	40:60
Offices	8	sqm	2.10	2.10	13	2	3	13	85:15	20:80
					71	**41**	**38**	**65**		
				TOTAL	**112**		**103**			

► **Peak hour for trips out of the Depot**: 05:15 – 06:15

The trips calculated for the hour in which the number of trips entering and leaving the depot is at its peak are reflected in Table 7. This information will be used to analyse the impact of the depot traffic on intersections 01 and 04 and to indicate whether these intersections are congested when the peak number of buses arrive at the intersection.

Table 7: Trips generated by depot development during the peak hour for trips out of the depot

Land Use	Size	Unit	Trip Rate		05:15 – 06:15		Split In/Out
			AM	PM	IN	OUT	AM
Depot	120	buses	0.53	0.72	7	57	10:90
Offices	8	sqm	2.10	2.10	13	2	85:15
					21	**60**	
				TOTAL	**81**		

The trip generation rate for offices, provided in the TMH 17-Trip Data Manual, was used to estimate the number of peak hour trips that will be generated by the admin buildings on this site.

When defining the traffic volume at an intersection, SIDRA does not distinguish between busses and heavy vehicles. Bus trips were therefore added to the existing background traffic as heavy vehicles, and the vehicles generated by the office facilities were added as light vehicles.

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4 Base Year Traffic Conditions

4.1 Existing Study Intersection Geometric Layouts

Figures showing the existing geometric layouts for the intersections under consideration are provided in Appendix A: Existing Geometric Layout of Study Intersections.

The base year (2021), implementation year (2025) and future year (2030) traffic volumes were analysed to investigate the operating conditions of the study intersections. Initially only the background traffic, without the additional trips to and from the depot, were considered. Scenarios, considering the additional depot development traffic, will be analysed in Section 10 of this report.

Initially the existing geometric layout with existing lane configuration and controls were analysed in SIDRA. Optimum cycle times were used to analyse signalised intersections.

4.2 Existing PWBB Link Volumes

The number of vehicles counted along PWBB were escalated (2.5%) to estimate the 2025 and 2030 link volumes. The recorded and estimated link volumes, along Links 1, 2 and 3 (shown in Figure 6) are summarised in Table 8. The link volumes were then compared to the assumed capacity of this class road.



Figure 6: Links analysed along PWBB

Table 8: PWBB Existing Link Volumes (veh/hour/lane)

			AM			PM		
	Direction	Assumed Capacity [veh/h/ln]	2021	2025	2030	2021	2025	2030
LINK 1	Eastbound	900	893	987	1116	585	648	731
	Westbound	900	379	419	474	549	608	687
LINK 2	Eastbound	900	537	594	671	638	705	798
	Westbound	900	499	551	624	371	411	464
LINK 3	Eastbound	900	540	597	675	512	566	627
	Westbound	900	609	673	761	449	496	562

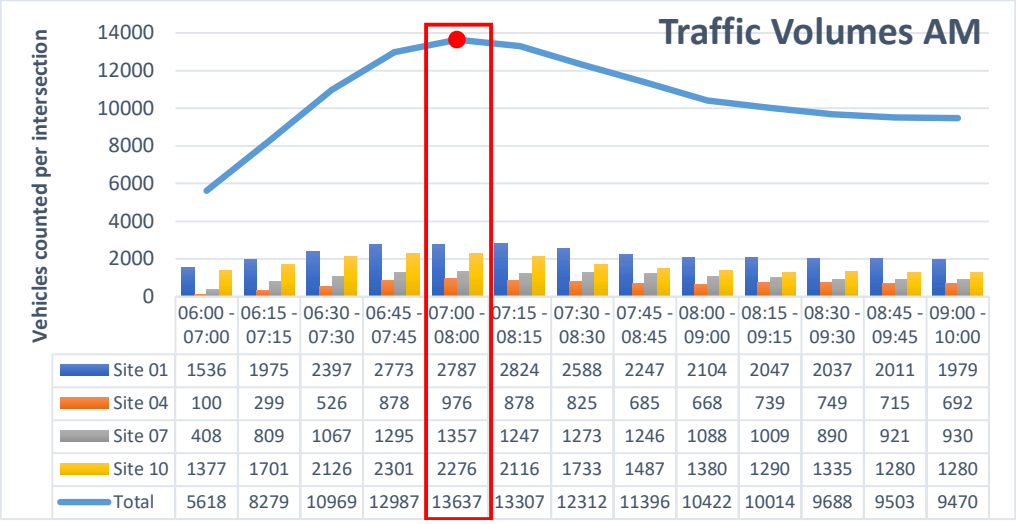
Without considering additional development traffic it appears that by 2030 Link 1 will be operating close to the capacity of a single carriage road with one lane per direction (assumed link capacity 900 veh/hour/lane). Should the capacity of this link not be increased, adding additional traffic may negatively impact the operation of intersections along PWBB.

4.3 Existing Network Peak Hour Analysis

Supervised traffic counts took place on the Wednesday 29th May and Thursday 30th May 2019 at the study intersections listed in Section 2.4. The intersections were surveyed from 06:00 to 19:00.

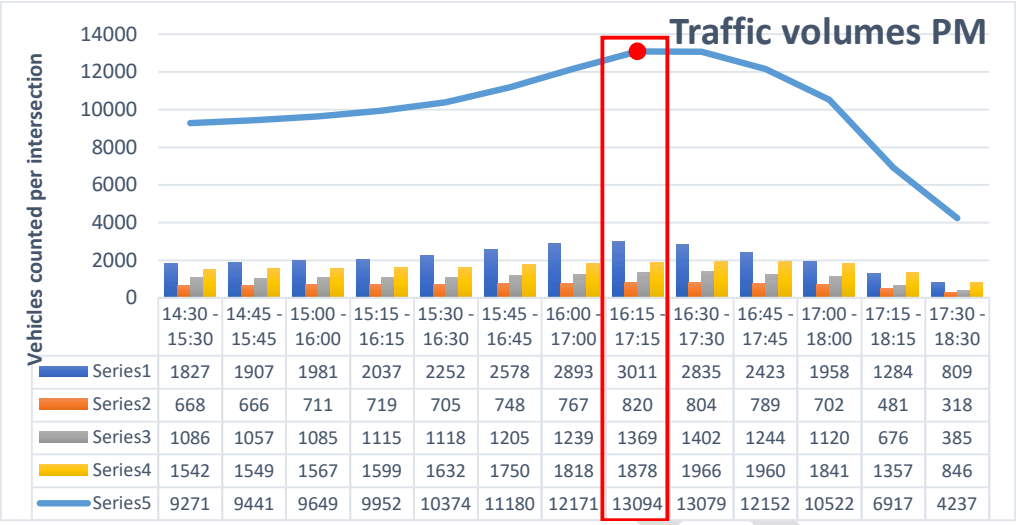
The critical peak hour or critical traffic scenario, from a road capacity perspective, occurs when the highest combination of existing street traffic and traffic generated by the development occurs. The existing classified counts constitute the base volume of traffic. The base volume is then adjusted, as required, for analysis purposes.

Figure 7 below illustrates the results of calculating the AM peak hour, while Figure 8 reflects the PM peak hour for the analysed intersections and subsequently for the study area as a whole. These volumes were calculated by determining the peak hour for the network (PWBB) and not the peak hour per intersection.



	06:00 - 07:00	06:15 - 07:15	06:30 - 07:30	06:45 - 07:45	07:00 - 08:00	07:15 - 08:15	07:30 - 08:30	07:45 - 08:45	08:00 - 09:00	08:15 - 09:15	08:30 - 09:30	08:45 - 09:45	09:00 - 10:00
Site 01	1536	1975	2397	2773	2787	2824	2588	2247	2104	2047	2037	2011	1979
Site 04	100	299	526	878	976	878	825	685	668	739	749	715	692
Site 07	408	809	1067	1295	1357	1247	1273	1246	1088	1009	890	921	930
Site 10	1377	1701	2126	2301	2276	2116	1733	1487	1380	1290	1335	1280	1280
Total	5618	8279	10969	12987	13637	13307	12312	11396	10422	10014	9688	9503	9470

Figure 7: Vehicles counted in the AM period



	14:30 - 15:30	14:45 - 15:45	15:00 - 16:00	15:15 - 16:15	15:30 - 16:30	15:45 - 16:45	16:00 - 17:00	16:15 - 17:15	16:30 - 17:30	16:45 - 17:45	17:00 - 18:00	17:15 - 18:15	17:30 - 18:30
Series1	1827	1907	1981	2037	2252	2578	2893	3011	2835	2423	1958	1284	809
Series2	668	666	711	719	705	748	767	820	804	789	702	481	318
Series3	1086	1057	1085	1115	1118	1205	1239	1369	1402	1244	1120	676	385
Series4	1542	1549	1567	1599	1632	1750	1818	1878	1966	1960	1841	1357	846
Series5	9271	9441	9649	9952	10374	11180	12171	13094	13079	12152	10522	6917	4237

Figure 8: Vehicles counted in the PM period

As shown above the AM peak hour for the road network occurred from 07:00 – 08:00 and the PM peak hour from 16:15 – 17:15. The detailed traffic count data per intersection is included as Appendix B: PWBB Intersection Traffic counts, and the network peak hour volumes used to determine the AM and PM peak hours are included as Appendix C: Network Peak Hour Volumes.

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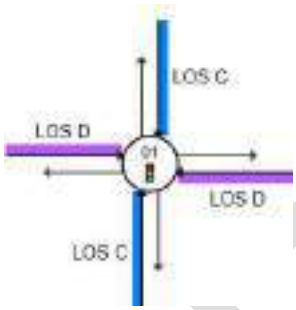
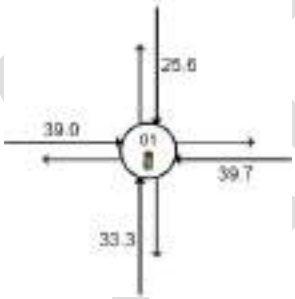
5 Operational Analysis: 2021 Base Year (without depot development traffic)

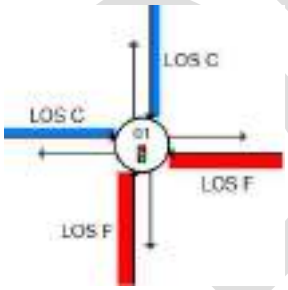
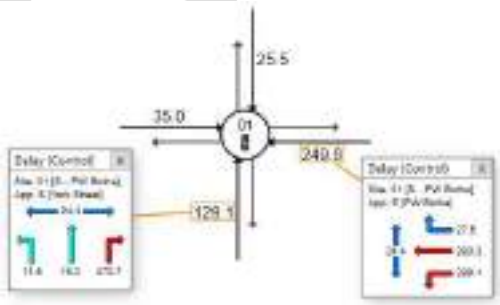
This section of the report discusses the outcomes of the operational analysis carried out at all study intersections in the 2021 Base Year Scenario (the existing traffic with no depot development traffic added).

5.1 Intersection 01 - York / Discovery / PWBB Intersection

Intersection 01 is a signalised intersection. Results from the operational analysis in terms of LOS, queue lengths and delays are reflected in Table 9.

Table 9: Analysis results for Intersection 01 – 2021 base year

<table>
<tr><th colspan="2">Intersection 01</th><th colspan="2">LOS</th><th colspan="2">v/c ratio</th><th>Remarks</th></tr>
<tr><th colspan="2">Scenario</th><th>AM</th><th>PM</th><th>AM</th><th>PM</th><th></th></tr>
<tr><td colspan="2">2021 Base Year</td><td>C</td><td>F</td><td>0.938</td><td>1.483</td><td>Not Acceptable</td></tr>
<tr><th></th><th>LOS (approach)</th><th colspan="4">Delay (sec)</th><th>Comments</th></tr>
<tr><td>AM</td><td> 
</td><td colspan="4"> 
</td><td rowspan="2">AM Peak Hour: Operation analyses indicate that this intersection operates at an acceptable level in the AM peak hour.

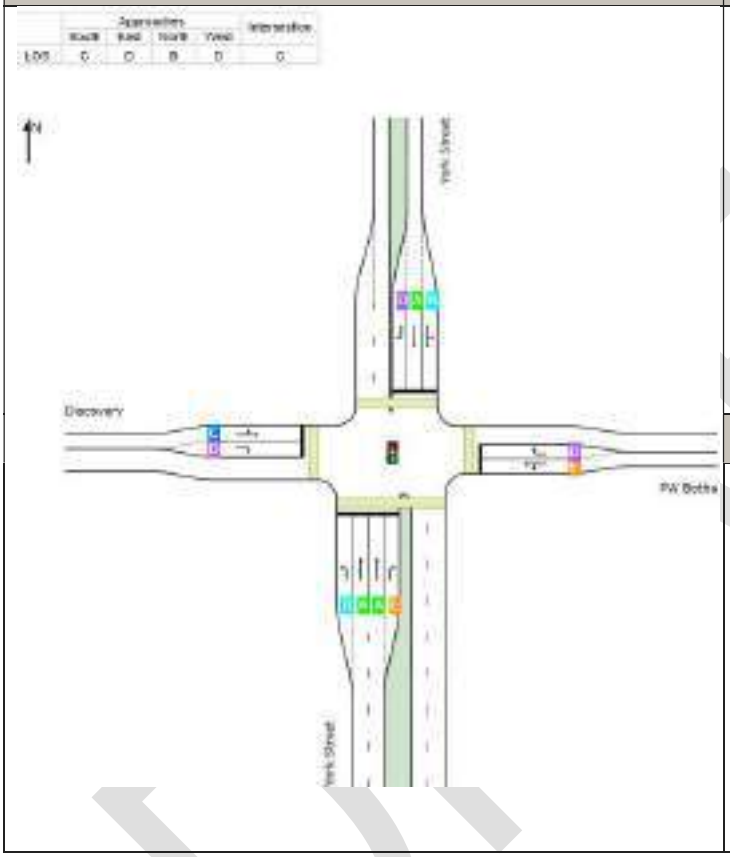
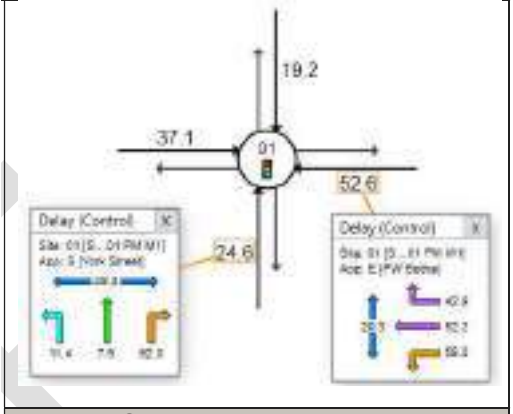
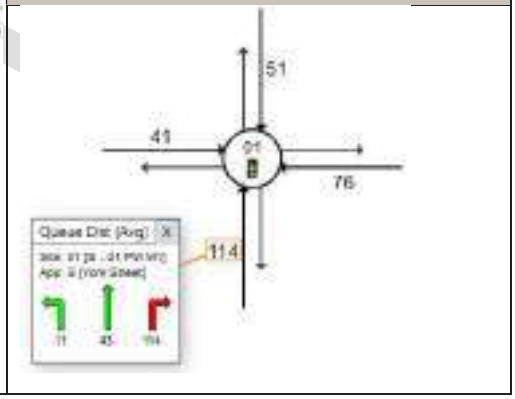
PM Peak Hour: Conditions worsen in the PM peak. LOS F is reported for the right turn movement approaching this intersection from the South (along York Street). Vehicles approaching this intesection from the east, along PWBB, experience long delays. This indicates that this intersection with PWBB in its current state operates close to its capacity.</td></tr>
<tr><td>PM</td><td> 
</td><td colspan="4"> 
</td></tr>
</table>

From the analysis above it is clear that the intersection between PWBB and York Street experiences excessive delays in the PM peak hour. The poor operating conditions need to be improved before any additional traffic can be added and the impact thereof tested.

Proposed Mitigation Measures (MM1): Improved signal phasing and timing

Various signal phase configurations were investigated and tested. It appears that by removing the existing right turning phase for vehicles approaching this intersection from the south in the PM peak hour improved the LOS of the intersection from LOS F to LOS C. The impact of this improvement is shown in Table 10

Table 10: Intersection LOS, delay and queue length with MM1 signal phasing and timing (without depot traffic)

LOS	Delay (seconds)
	
	Queue Length (meters)
	

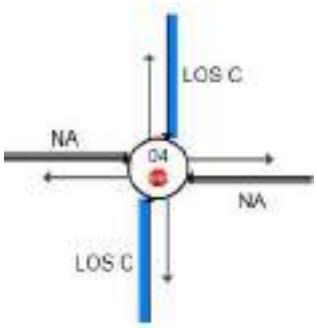
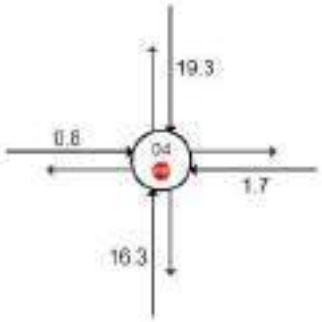
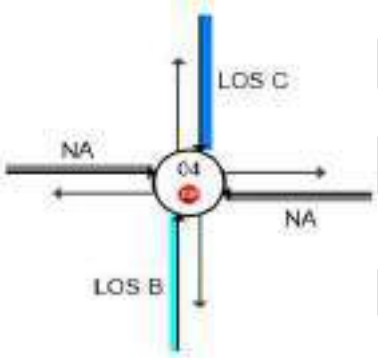
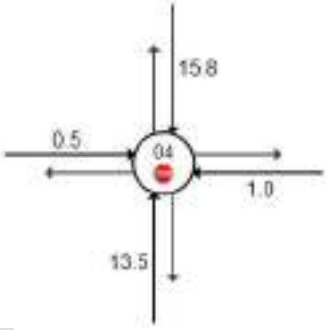
This improvement will be applied to all future scenarios.

5.2 Intersection 04 - Ossie Urban / PWBB Intersection

This intersection is a two way stop controlled intersection with the Ossie Urban approaches being stop controlled. Results from the operational analysis in terms of LOS[1], queue lengths and delays are reflected in Table 11.

Table 11: Analysis results for Intersection 04 – 2021 Base Year

Intersection 04 – TWSC	LOS		v/c ratio		Remarks
Scenario	AM	PM	AM	PM	
2021 Base Year	C	C	0.314	0.238	Acceptable

	LOS (approach)	Delay (sec)	Comments
AM			The LOS and delay on all approaches are acceptable in the AM and PM peak hour. The v/c ratio for the interseciton is less than 0.5 which indicate that this intersection can accommodate additional traffic.
PM			

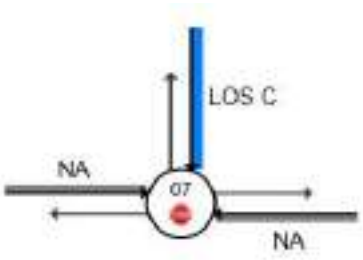
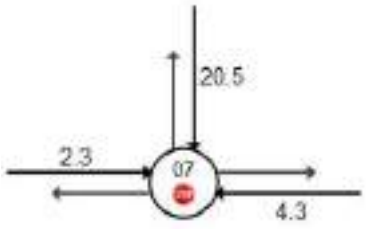
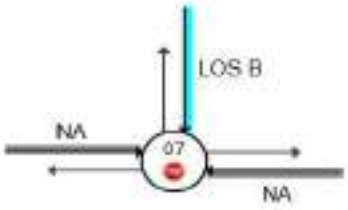
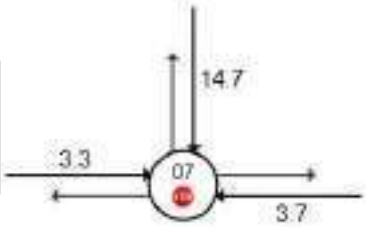
[1] SIDRA does not provide LOS for the major approaches of two-way stop-controlled intersections (HCM LOS rule).

5.3 Intersection 07 - Rand / PW Botha Blvd Intersection

This intersection is a two way stop controlled intersection with Northern approach being stop controlled. Results from the operational analysis in terms of LOS[2] , queue lengths and delays are reflected in Table 12.

Table 12: Analysis results for Intersection 07 – 2021 Base Year

Intersection 07 – T Junction	LOS		v/c ratio		Remarks
Scenario	**AM**	**PM**	**AM**	**PM**	
2021 Base Year	C	B	0.683	0.386	Acceptable

	LOS (approach)	Delay (sec)	Comments
AM			The level of service in the AM and PM peak hour is considered to be acceptable.
PM			

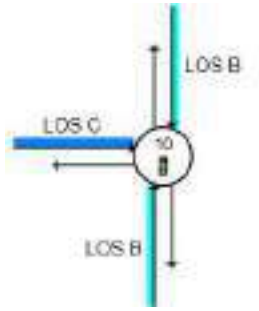
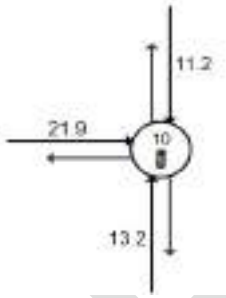
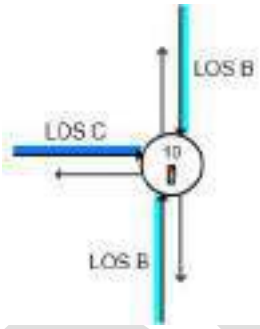
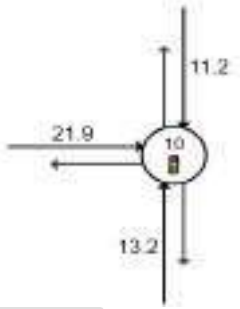
[2] SIDRA does not provide LOS for the major approaches of two-way stop-controlled intersections (HCM LOS rule).

5.4 Intersection 10 – NMB / PWBB

The intersection between NMB and PWBB is signal-controlled. The LOS and approach delays are reflected in Table 13 below.

Table 13: Analysis results for Intersection 10 – 2021 base year

Intersection 10	LOS		v/c ratio		Remarks
Scenario	AM	PM	AM	PM	
2021 Base year	B	B	0.71	0.73	Acceptable Overall

	LOS (approach)	Delay (sec)	Comments
AM			This intersection operates at an acceptable level of service for the AM and PM peak hours.
PM			

6 Operational Analysis: 2025 Implementation and 2030 Future Year (without depot development traffic)

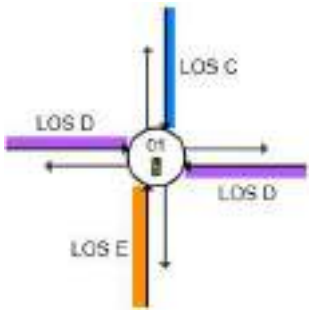
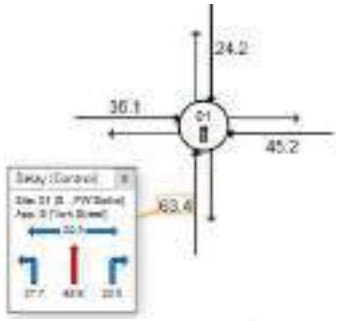
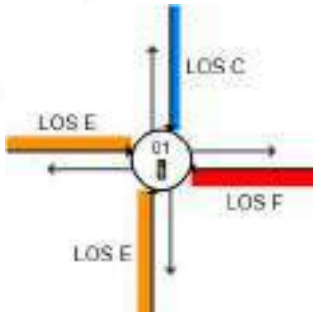
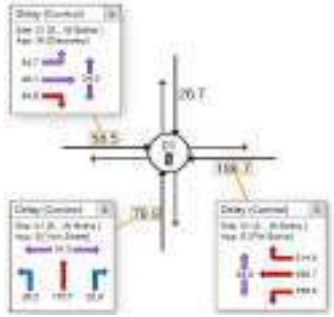
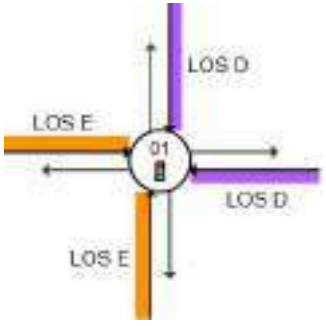
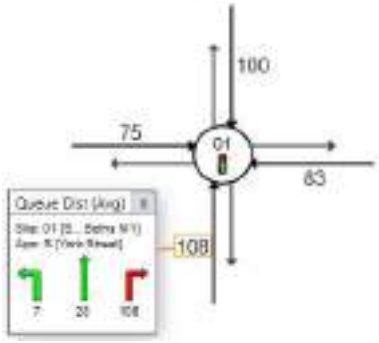
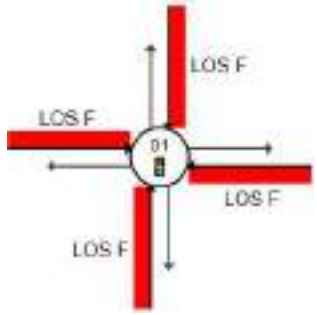
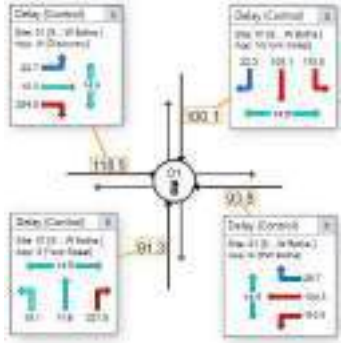
These scenarios test the intersection capacity with the increase in background traffic (existing traffic escalated at 2.5% per annum) in the development implementation year, 2025 as well as 5 years post development (2030).

6.1 Intersection 01 - York / Discovery / PWWB Intersection

Considering the expected 2025 and 2030 background traffic, the LOS, expected queue lengths and approach delays are reflected in Table 14 below.

Table 14: Analysis results for Intersection 01 – 2025 Implementation and 2030 Future year

Intersection 01	LOS		v/c ratio		Remarks
Scenario	AM	PM	AM	PM	
2025 Implementation Year (without depot development traffic)	D	D	1.087	1.234	Acceptable LOS, possible capacity constraints
2030 Future Year (without depot development traffic)	E	F	1.299	1.334	Not Acceptable

	2025		2030	
	LOS	Delay (sec)	LOS	Delay (sec)
AM				
PM				

From the SIDRA results shown in Table 14 it appears that:

- Although the intersection shows an overall LOS D, it will operate at capacity by 2025.
- Even with the signal improvements recommended in Paragraph 5.1(MM1), this intersection will operate at capacity by 2030 and all approaches are expected to be congested.
- Further intersection improvements / upgrades are recommended before any depot development traffic can be added to the intersection.

Proposed Mitigation Measures (MM2)

The following mitigation measures were investigated and tested:

- Short exit lane into PW Botha (150m)
- Right turn option in York Street South Approach lane 3
- Additional left turn lane on the PWBB eastern approach (assumed lane length 150m)

The proposed mitigation measures were tested in SIDRA. The proposed layout is shown in Figure 9 and the results reflected in Table 15.

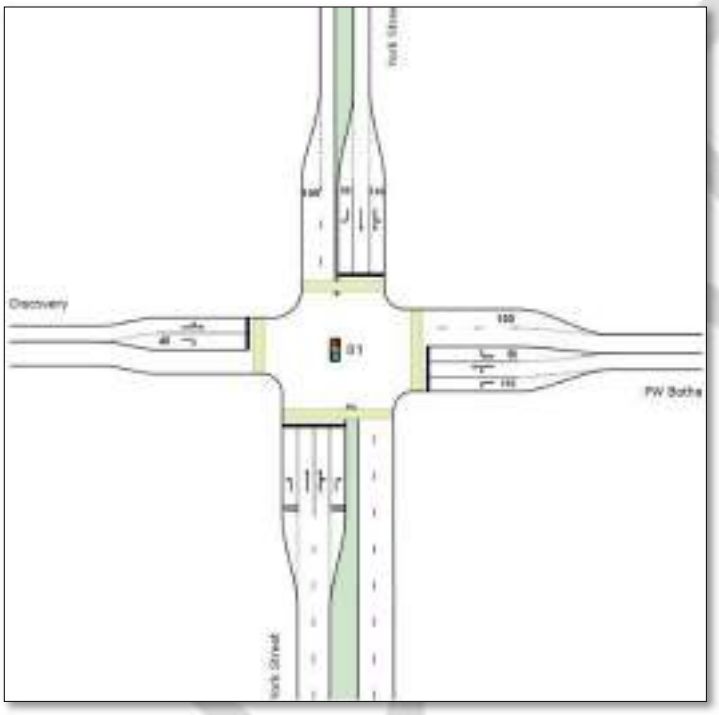
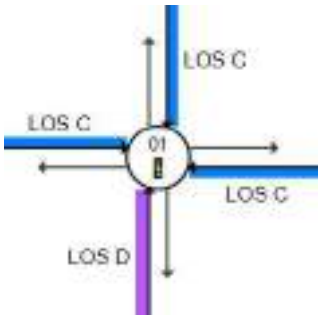
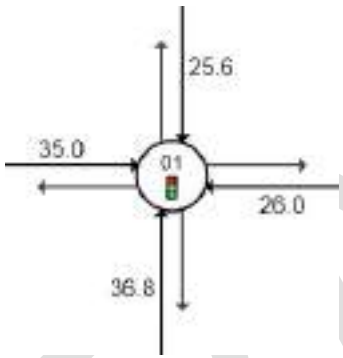
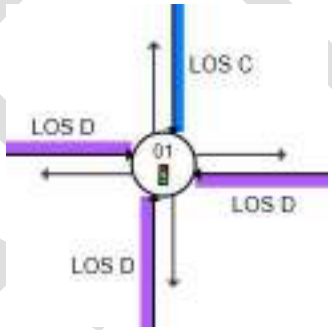
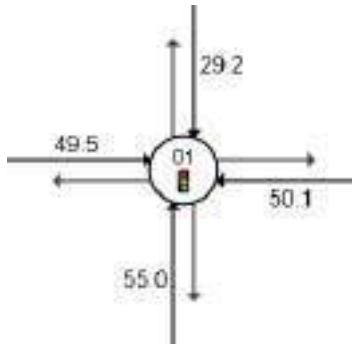
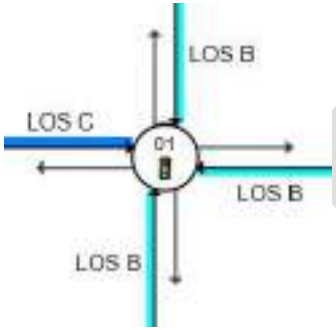
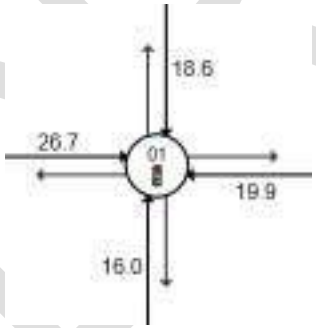
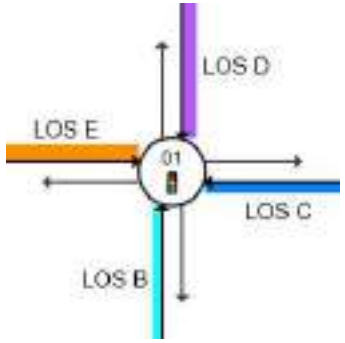
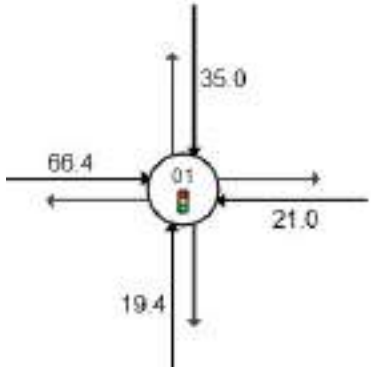


Figure 9: Proposed layout for Site 01 with MM2 improvements

Considering the expected 2030 Future Year background traffic, this intersection may experience capacity issues (the v/c ratio is greater than 1) and may require additional upgrades to those proposed above.

Table 15: Intersection 01 Intersection improvement MM2 analysis results (without depot development traffic)

Intersection 01 – MM2	LOS		v/c ratio		Remarks
Scenario	**AM**	**PM**	**AM**	**PM**	
2025 Implementation Year (without depot development traffic)	C	B	0.969	0.907	Acceptable LOS
2030 Future Year (without depot development traffic)	D	C	1.107	1.108	Acceptable LOS

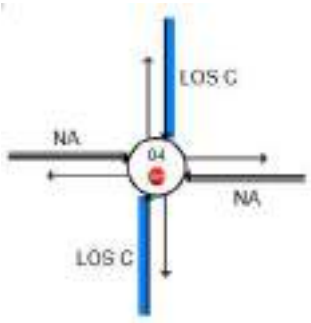
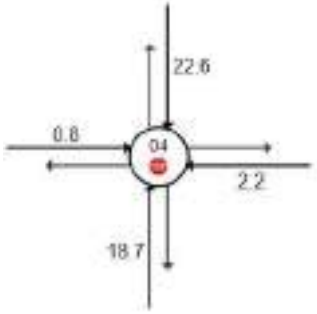
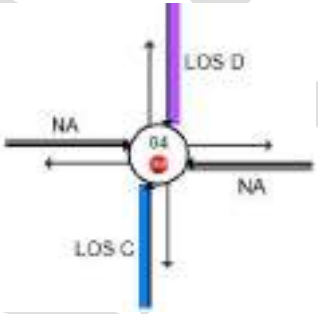
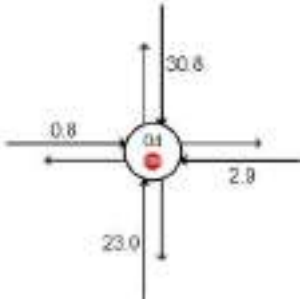
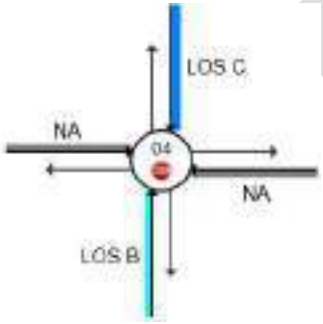
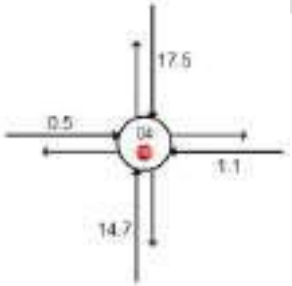
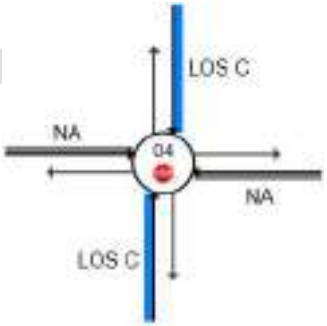
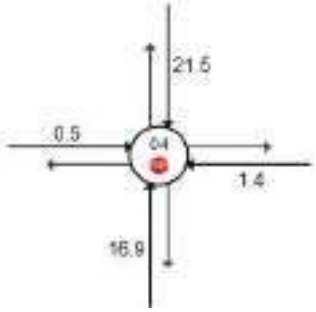
	2025		2030	
	LOS	**Delay (sec)**	**LOS**	**Delay (sec)**
AM				
PM				

6.2 Intersection 04 - Ossie Urban / PWBB Intersection

The expected 2025 Implementation Year and 2030 Future Year traffic conditions were modelled using SIDRA, the expected LOS, queue lengths and delays are reflected in Table 16.

Table 16: Analysis results for Intersection 04 – Upgraded 2025 Implementation and 2030 Future year

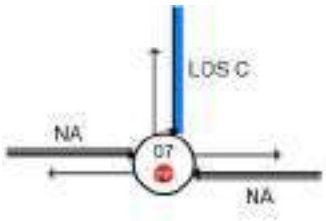
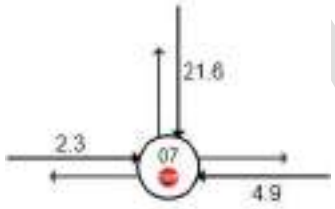
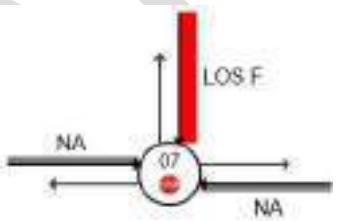
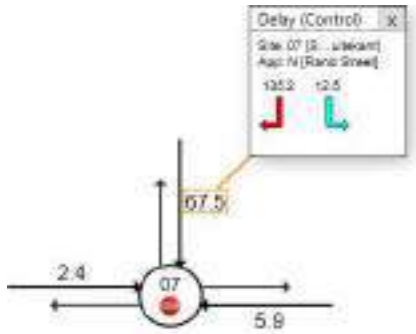
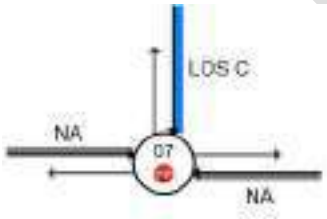
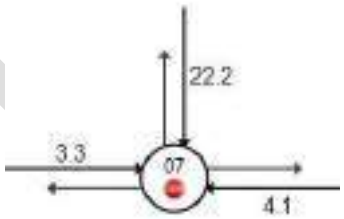
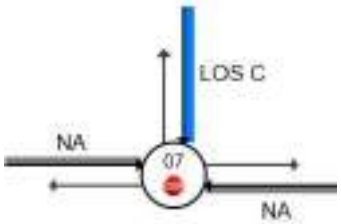
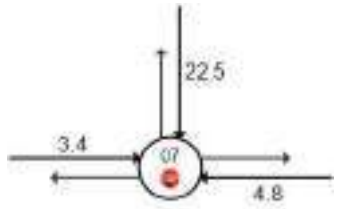
Intersection 04	LOS		v/c ratio		Remarks
Scenario	AM	PM	AM	PM	
2025 Implementation Year (without depot traffic)	C	C	0.347	0.263	Acceptable
2030 Future Year (without depot traffic)	D	C	0.392	0.298	Acceptable

	2025		2030		Comments
	LOS	Delay (sec)	LOS	Delay (sec)	
AM					2025: AM & PM peak hour analyses indecate that this intersection is expected to operate at a LOS C. 2030: Although the operating conditions of this intersection worsens slightly, it continues to operate at an acceptable LOS (LOS C and D).
PM					

6.3 Intersection 07 - Rand / PWBB Intersection

The expected 2025 Implementation Year and 2030 Future Year traffic conditions were modelled using SIDRA. The expected LOS, queue lengths and delays are reflected in Table 17

Table 17: Analysis results for Intersection 07 – 2025 Implementation and 2030 Future Year

Intersection 07 – T Junction			LOS		v/c ratio		Remarks
Scenario			AM	PM	AM	PM	
2025 Implementation Year (without depot traffic)			C	C	0.728	0.757	Acceptable Overall
2030 Future Year (without depot traffic)			F	C	1.070	0.732	Not Acceptable
	2025			2030			
	LOS	Delay (sec)		LOS		Delay (sec)	
AM							
PM							

DRAFT

Indications are that:

- By 2025 this intersection will operate at an acceptable LOS in the AM and PM peak hour.
- By 2030 the northern approach will experience lengthy delays in the AM peak hour, resulting in this approach operating at LOS F. Upon further investigation it was found that the right turn movement form Rand Street into PW Botha is problematic and requires improvement. During the PM peak-hour the intersection operates at an acceptable LOS.

Proposed Mitigation Measures

To improve the 2030 Future Year operating conditions, the following mitigation measures were investigated and tested, as reflected in Table 18

Table 18: Intersection 07 Mitigation measure comparison

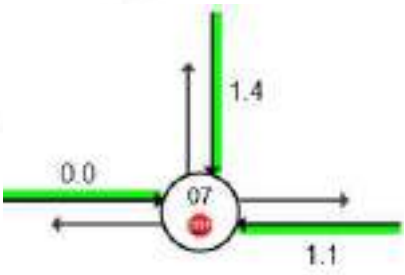
Description	Geometry	SIDRA ANALYSIS			Results	Comment
			AM	PM		
Option 1: Roundabout ► 20m island diameter ► 5m single lane circulating widths for all approaches ► 20m entry radius ► 30 degrees entry angle		**LOS**	B	A	This upgrade improves the level of service for the intersection to LOS B for the AM peak hours making it acceptable overall	Consideration should be given to the cost of constructing a roundabout and the availability of land.
		Delay (sec)	10	8.1		
		Queue (veh)	3	4		
		Queue (m)	25	29		
		v/c	0.697	0.739		
Option 2: Signalised Intersection ► Existing geometric layout to remain ► 2 phase signal timing ► Optimim cycle time – 120 seconds		**LOS**	C	B	This upgrade also improves the level of service of the intersection to LOS C for the AM peak hour in 2030, making it acceptable overall	This consideration would depend on cost and whether this intersection warrants a signalized intersection.
		Delay	22.6	15.9		
		Queue (veh)	14	9		
		Queue (m)	111	72		
		v/c	0.859	0.777		

Volume 3: Traffic Signal Design of the South African Traffic Signs Manual (SARTSM) provides warrants for the installation of traffic signals:

- WARRANT 1: The average length of any individual queue equals or exceeds four (4) over any hour of a normal day.
- WARRANT 2: The sum of the average lengths of all queues equals or exceeds six (6) over any hour of a normal day.
- WARRANT 3: The sum of the average lengths of all queues equals or exceeds four (4) over each of any eight hours of a normal day (the hours do not have to be consecutive, but they may not overlap).

Using SIDRA, the average queue length at Intersection 07 for the AM and PM peak hour, were investigated. The results are shown in Table 19.

Table 19: Vehicle Queues for Intersection 01 traffic conditions in 2030

	AM	PM
Vehicle Queue (veh)		

It appears that the average length of the queue on the northern approach to this intersection exceeds four (4) in the AM peak hour (Warrant 1) and thus, a signalised intersection is warranted at this location.

The possibility of upgrading this intersection to a roundabout or signalised intersection was also considered in a TIA report prepared by SMEC[4].

The Roundabout Framework prepared by ITS indicates that a roundabout can be considered when the vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day. This document also highlights the fact that roundabouts have the ability for cater of high turning volumes.

Considering the following:

- the average hourly volume approaching Intersection 07 along the PWBB (the major approach) is in excess of 300veh/h (approximately 600veh/h)
- the high percentage of right turn movements observed at this intersection
- the availability of road reserve.

It is recommended that Intersection 07 be upgraded to a roundabout.

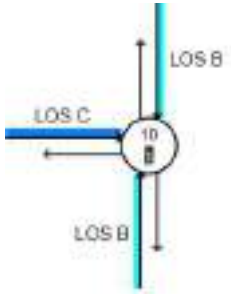
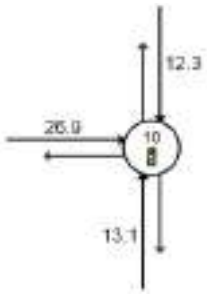
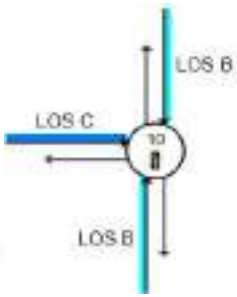
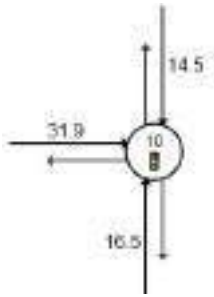
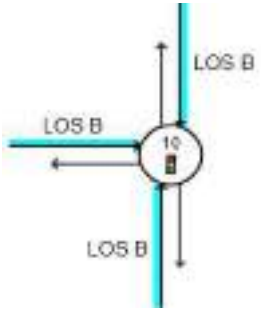
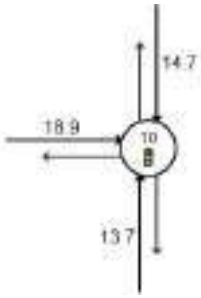
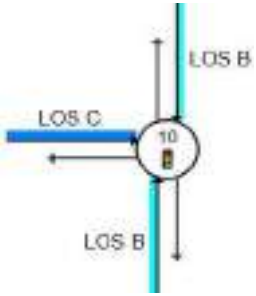
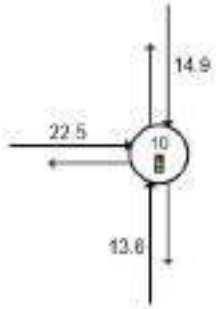
[4] Traffic Impact Study: Proposed development on ERF 464(Metro Grounds) George, Report C1461-Rev02, February 2015, SMEC

6.4 Intersection 10 – NMB / PWBB

The expected 2025 Implementation Year and 2030 Future Year traffic conditions were modelled using SIDRA, the expected LOS, v/c ratios and delays are reflected in Table 20

Table 20: Analysis results for Intersection 10 – 2025 Implementation and 2030 Future year

Intersection 10	LOS		v/c ratio		Remarks
Scenario	**AM**	**PM**	**AM**	**PM**	
2025 Implementation year (without depot traffic)	B	B	0.751	0.690	Acceptable
2030 Future Year (without depot traffic)	B	B	0.884	0.774	Acceptable

	2025		2030		Comments
	LOS	**Delay (sec)**	**LOS**	**Delay (sec)**	
AM					2025 and 2030: Analysis of the AM and PM peak hours indicate that this intersection operates at an acceptable LOS. No improvements are therefore required.
PM					

7 Proposed Development

7.1 Development Details

The proposed development will consist of:

- Open park area for a maximum of 194 buses
- Office administration block with visitors parking
- Staff facilities such as staff parking and a training centre
- Workshop for minor repairs
- Fuelling facilities
- Wash bay
- Security gate control building

The development proposal can be seen in Figure 10 below and is attached as Appendix D



Figure 10: Permanent Bus Depot Layout

7.2 Access

7.2.1 Access Management

It is proposed that access to the site be obtained from a future road which will be provided between PWBB and the East Rand extension.

Two accesses are proposed to the depot site:

- The first access is 125m from PWBB that will give access to the parking areas for private vehicles.
- A second access is 200m from the first and 325m from the PWBB intersection. This access will only be used by the bus fleet.

It is planned that the dedicated bus access be provided with two entry lanes, and two exit lanes, and that these be separated by a 4m wide median with security guard house. The wide median aims at facilitating bus turn movements. The double lanes are considered appropriate for the storage of vehicles during the entry/exit security checks, rather than that of improving operational performance onto the access roadway.

The development environment is suburban with the number of light vehicles entering the depot during the depot via Access 1 is 13 in the AM peak hour and 3 in the PM peak hour.

The number of buses entering the depot at Access 2 is 57 in the AM peak hour and 34 in the PM peak hour.

Applying the Access Management Guidelines[5] (AMG) shown in Table 21, Access 1 can be classified as a low volume driveway and Access 2 a high-volume driveway.

Table 21: Categories of driveway and threshold volumes (Source: AMG, 2020)

Driveway category	Class equivalent	Roadside development environment				
		CBD	Intermediate	Suburban	Semi-rural	Rural
		Vehicles per hour				v.p.d
Domestic equivalent		<5	<5	<5	<5	<5
Low volume		5-30	5-30	5-30	5-30	5-30
High-volume	5	30-150	30-100	30-60	30-50	30-50
Equivalent collector	4	150-750	100-625	60-500	50-250	50-500
Equivalent minor arterial	3	750-1500	625-1250	500-1000	250-500	500-1000
Equivalent minor arterial	2	>1500	>1250	>1000	>500	>1000

[5] Access Management Guidelines, 2020

Table 22 shows the minimum distance required between a low/high-volume driveway and an unsignalized intersection.

Table 22: Minimum spacing distances for intersections and driveways with Class 4 roads (Source: AMG,2020)

Spacing		Roadside Developments Environment			
		Distance (m)			
		Spacing without a median on the approach towards or downstream of a full intersection with a Class 2 or 3			
From	To	CBD	Intermediate	Suburban	Semi-rural
Last high-volume driveway (Vehicle access)	Unsignalized full intersection	80	95	115	145
Second last low volume driveway (bus access)	Unsignalized full intersection	120	145	180	225

Considering that this is a suburban development environment, the distances between Intersection 4 (unsignalized intersection) and the future access roads are more than the prescribed 115m and 180m, as shown in Figure 11.



Figure 11: Accesses provided

7.2.2 Throat Length

Throat length calculations indicate that the length of the bus access should be at least 60m and 2 entrance lanes be provided. This stacking distance can accommodate 4 Standard buses. In addition, provision was made for a waiting area inside the depot. Figure 12 shows the throat lengths and access spacing.

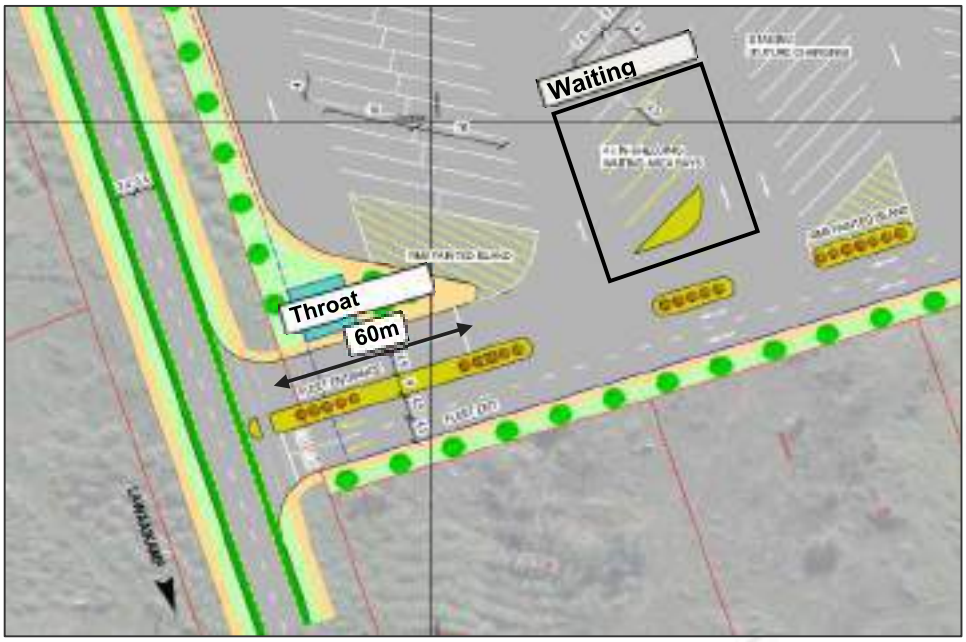


Figure 12: Throat length provided

7.2.3 PWBB Turning Lanes

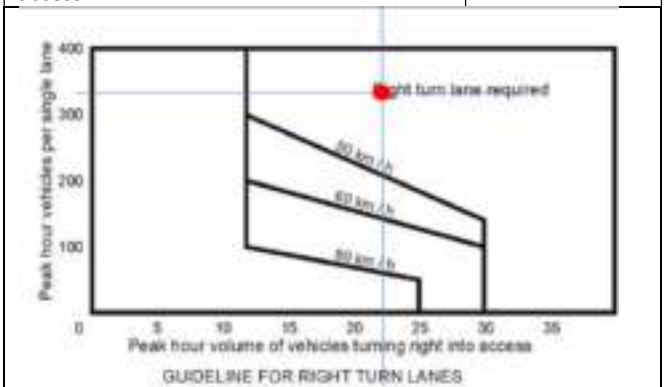
The warrants for left and right turn lanes, as provided in the Provincial Road Access Guidelines (RAG), were applied to Intersection 4 (PWBB /Ossie Urban Street) as shown in Table 23.

The number of vehicles turning south at Intersection 4 warrants an eastbound right turn lane along PWBB.

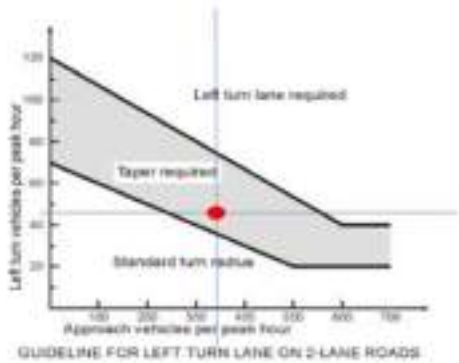
The westbound direction (PWBB) warrants a left turn taper during the Network AM and PM peak hours.

Table 23: Warrants for left and right turn lanes

RIGHT TURN WARRANT	PWBB West Approach (into depot)
PH vehicles per single lane	336
PH volume of vehicles turning right into access	21



LEFT TURN WARRANT	PWBB East Approach (into depot)
Left Turn Vehicles per PH	45
Approach Vehicles per PH	353



7.3 Depot development traffic

The traffic at the existing temporary depot consists of 122 buses of various sizes and private and public vehicles entering the depot. It is assumed that the same will apply to the permanent depot in PWBB. Considering the planned roll out of future phases 4A, 5, 6 and 7, the fleet size has been projected to be 150 buses by 2025. Assuming an average out of service ratio of 20%, would bring the total expected operational fleet to 120.

Gate control sheets from the existing depot, used to record busses entering and leaving the existing depot, were analysed for three consecutive normal operating days. A summary of the bus movements is attached as Appendix E. Using this data, the peak hour, trip generation rate and the directional split of bus movements were calculated.

7.3.1 Peak Hour

The bus movement analysis (from the gate control sheets) was used to determine the peak hours for the different scenarios, the results are shown in Figure 13 and Figure 14 summarised in Table 24.

Table 24: Summary of peak hours evaluated

	AM	PM
Network peak hour	07:00 – 08:00	16:15 – 17:15
Depot peak hour	08:15 – 09:15	14:45 – 15:45
Peak hour for trips out of the Depot	05:15 – 06:15	N/A

The peak hour for bus operations does not coincide with the peak hour of the adjacent road network. The peak hour of the bus depot operations (indicated in orange in Figure 14 and Figure 13) is earlier (AM) than the peak hour of the road network adjacent to the proposed depot site (indicated in green). The peak hour of the bus depot operations occurs when the sum of the number of busses into and out of the depot is at a maximum. The estimated bus depot trip generation rate was therefore calculated based on the bus operations during the road network (PWBB) peak hour and not for the bus depot peak hour.

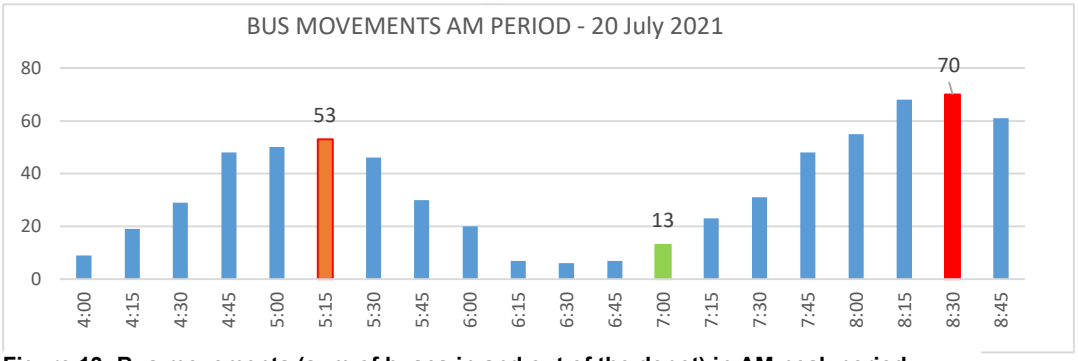


Figure 13: Bus movements (sum of buses in and out of the depot) in AM peak period

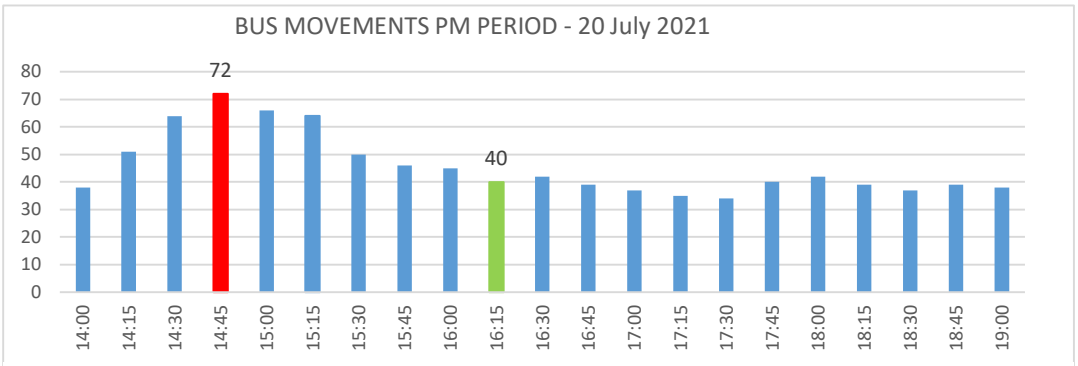


Figure 14: Bus movements (sum of buses in and out of the depot) in PM peak period

7.3.2 Trip Generation

The trip rates calculated based on the bus movement analysis for the peak hour scenarios is summarised in Table 25.

Table 25: Summary of trip generation rate for peak hour scenarios

	Network peak hour		Depot peak hour		Peak hour for trips out of the Depot
	AM	**PM**	**AM**	**PM**	**AM**
Peak hour	07:00-08:00	16:15-17:15	08:15-09:30	14:45-15:45	05:15-06:15
Depot Trip rate	0.15	0.39	0.78	0.72	0.53
In/Out Split	75:25	55:45	60:40	40:60	10:90

7.3.3 Trip Distribution

The distribution shown in Figure 15, indicates how the trips generated by the depot were distributed on the road network:

- 70% of trips exit the depot eastbound towards Rand Street -20% turn left towards George CBD and 80% turn right into PWBB towards the NMB intersection.
- 30% of trips exit the depot westbound towards York Street.



Figure 15: Trip distribution for depot development traffic

7.4 Parking

The existing depot provides approximately 60 on-site parking bays for admin staff and visitors. Parking for the bus drivers is provided in the designated parking area (approximately 50 bays) and unused land where an additional 40-50 vehicles can park.

Currently the GOGEORGE system has 80 bus drivers per shift. To account for the roll out to new areas and growth in the system the parking calculations below are based on 150 bus drivers per shift.

The number of parking bays required are estimated based on the parking requirements provided in the George Municipality Integrated Zoning Scheme By-Law (September 2017) and the Bus Depot Design Guidelines by SGA Architects, 2017. The number of parking bays required and provided at the new depot are summarised in Table 26 below:

Table 26: Parking bay required and provided

Parking Area For	Reference Document	Required as per Guideline Document	Number of Bays Required	Number of Bays Provided
Admin and Visitors parking	George Municipality Integrated Zoning Scheme By-Law (September 2017)	4 bays per 100 m² GLA	63	63 (assuming 1580m² admin and operational buildings)
Bus driver parking	Bus Depot Design Guidelines	20% of drivers should require parking bays	30	30 (150 bus drivers per shift)
Total Parking Bays for Passenger Cars			*93*	*93*
Standard Bus	N/A	N/A	150 (Based on estimated fleet)	72
Midi bus	N/A	N/A		47
Sprinter bus	N/A	N/A		50
"Sick bays"	N/A	N/A		8
In-shedding/ waiting area bays	N/A	N/A		4
Staging area	N/A	N/A		13
Total Parking Bays for Buses			*150*	*194*

Although the concept drawing attached in Appendix D, makes provision for 93 parking bays for passenger cars and 194 bays for busses, the parking bay dimensions can be reduced to accommodate more vehicles.

8 Operational Analysis: 2025 Implementation and 2030 Future Year (with depot development traffic)

This section shows the analysis to determine the LOS of the intersections along PWBB affected by the traffic generated by the depot. The implementation year 2025 and the future year 2030 (5 years post development) traffic conditions will be investigated.

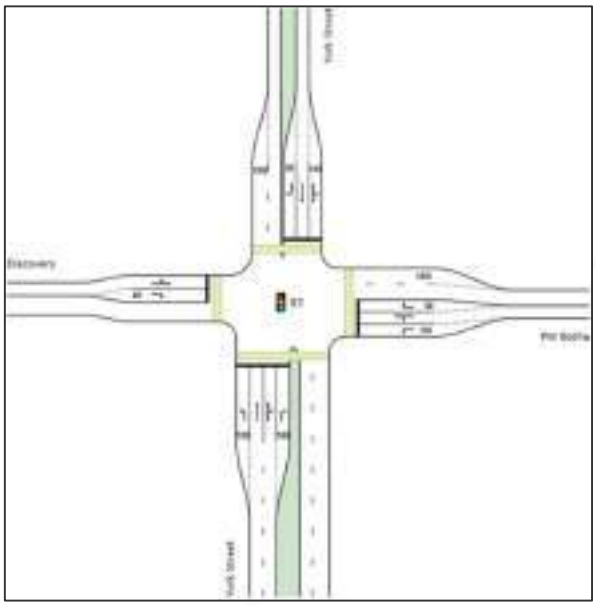
It is assumed that Intersections 01 and 04 have been upgraded as proposed in Section 5 and 6 of this report.

8.1 Intersection 01 - York / Discovery / PWBB Intersection

Taking into consideration that Intersection 01 is a major intersection along a major arterial, the operational analysis of Intersection 01 was investigated for both the depot and network peak hours.

8.1.1 Operational Analysis of Intersection 01: Network Peak Hour

The development traffic was added to the 2025 Implementation Year and 2030 Future Year background traffic.



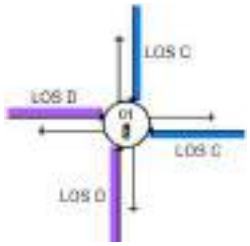
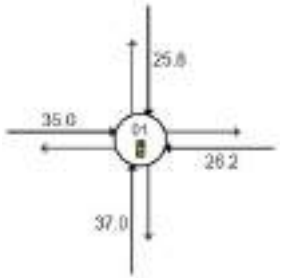
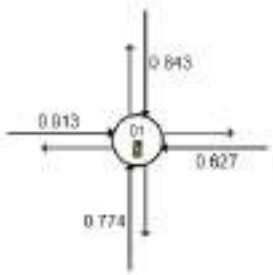
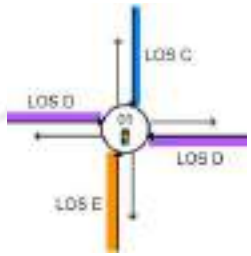
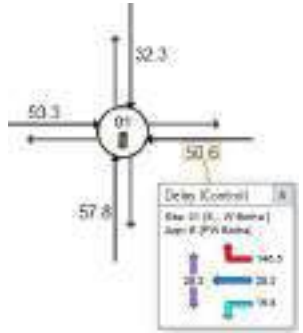
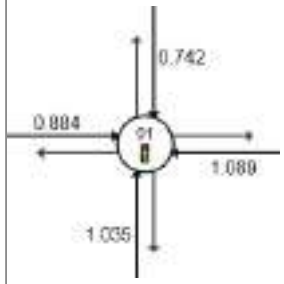
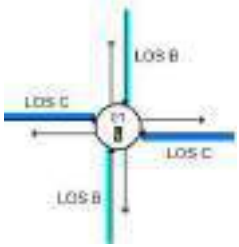
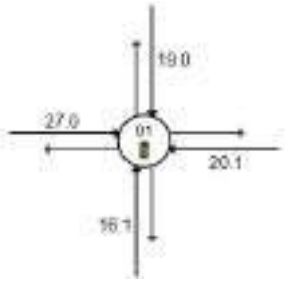
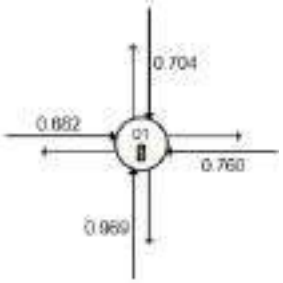
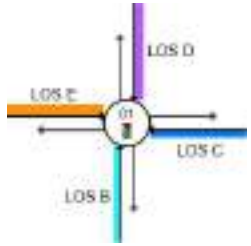
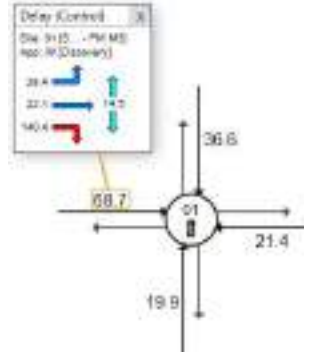
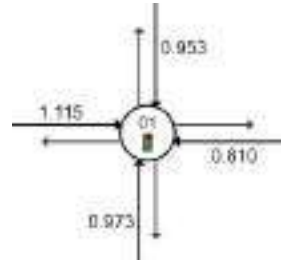
It is assumed that the mitigation measures recommended for implementation in Paragraph 6.1 were applied:

- Short exit lane into PW Botha (150m)
- Allow right turn from York Street (southern approach) into PWBB
- Additional left turn lane on the PWBB eastern approach (assumed lane length 150m)

Results of the analysis of Intersection 01 are reflected in Table 27.

Table 27: Analysis results for Intersection 01 – 2025 Implementation + Depot Traffic and 2030 Future Year + Depot Traffic

Intersection 01	LOS		v/c ratio		Remarks
Scenario	**AM**	**PM**	**AM**	**PM**	
2025 Implementation Year + Depot traffic	C	B	0.969	0.913	Acceptable LOS; capacity constraints
2030 Future Year + Depot traffic	D	C	1.089	1.115	Acceptable LOS; capacity constraints

	2025			2030		
	LOS	**Delay (sec)**	**v/c**	**LOS**	**Delay (sec)**	**v/c**
AM						
PM						

Indications are that:

- By 2025: with depot traffic added to the expected background traffic, this interection operates at an acceptable LOS C during the AM and LOS B during PM peak hours.
- By 2030: Considering the background traffic and the additional depot development traffic, this intersection is expected to operate at an acceptable LOS. (LOS D in the AM peak hour and C in the PM peak hour). The right turns movements from Discovery and PWBB experience longer than average delays PWBB
- Although this intersection is expected to operate at an acceptable LOS in 2025 and 2030 with the development traffic added, the intersection will be congested as the overall v/c ratio for this intersection exceeds 1. Capacity could be added by dualling PW Botha.

8.1.2 Operational Analysis of Intersection 01: Other Hours of the Day

This intersection was also analysed when the number of buses leaving the depot are expected to be highest, between 05:15 and 06:15.

The results of the SIDRA analysis are summarised in Table 28

Table 28: Analysis results for Intersection 01 – 2025 traffic + depot traffic in depot peak hour

Intersection 01	LOS		v/c ratio		Remarks
Scenario	AM	PM	AM	PM	
2025 Implementation Year + Depot traffic	B	C	0.333	0.870	Acceptable
2030 Future Year + Depot traffic	B	B	0.340	0.648	Acceptable

To emphasize that the failure of this intersection is not a result of the depot traffic this intersection was analysed with and without depot development traffic. The intersection LOS for different times of the day (with and without the development traffic) are compared in Table 29 below.

Table 29: Intersection 01 impact at various peak hours

	05:15 – 06:15 Maximum number of buses leaving the depot	07:00 – 08:00 Network AM Peak Hour	16:15 – 17:15 Network PM Peak Hour
2030 Future Year (without depot, without any improvements)	LOS B (v/c =0.37)	LOS E (v/c = 1.22)	LOS F (v/c = 1.43)
2030 Future Year (with depot, without any improvements)	LOS B (v/c = 0.37)	LOS E (v/c = 1.23)	LOS F (v/c = 2.35)
2030 Future Year (with depot and with intersection improvements - MM2)	LOS B (v/c = 0.34) (with intersection improvements MM2)	LOS D (v/c = 1.09) (with intersection improvements MM2)	LOS C (v/c = 1.11) (with intersection improvements MM2)

It appears that:

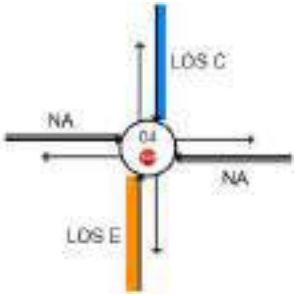
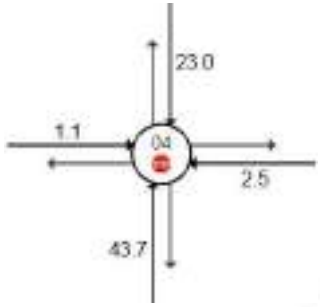
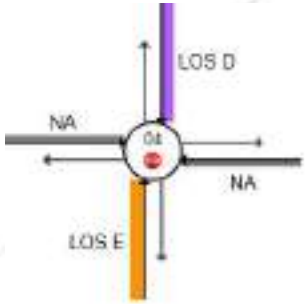
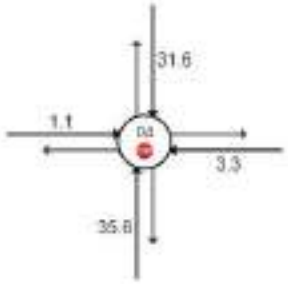
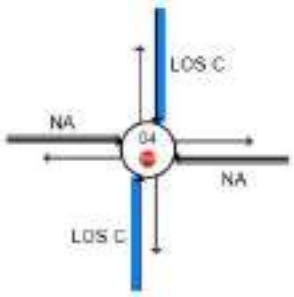
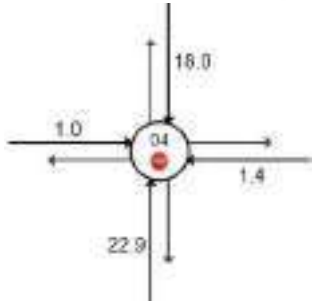
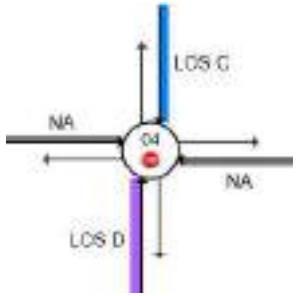
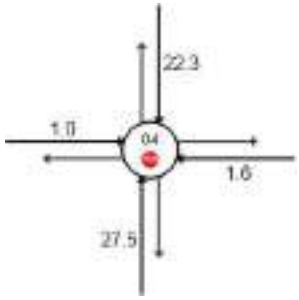
- Without any additional traffic added, Intersection 01 is operating at LOS E and F in the Network AM and PM peak hour respectively
- When the depot traffic is added (without improving the intersection) the operating conditions remain the same. Therefore, the impact of trips to and from the depot at this intersection is minimal
- Should a short exit lane into PWBB, a right turn lane on the southern approach of York Street and an additional left turn lane on the PWBB's eastern approach be added, the LOS at the intersections improves to D and C during the Network AM and PM peak hour respectively

8.2 Intersection 04 - Ossie Urban / PWBB Intersection

Intersection 04 is a two way stop controlled intersection. The depot development traffic was added to the expected 2025 Implementation Year and 2030 Future Year background traffic and tested using SIDRA. The results are reflected in Table 30 below:

Table 30:Analysis results for Intersection 04 –2025 Implementation and 2030 future year + depot traffic

Intersection 04	LOS		v/c ratio		Remarks
Scenario	AM	PM	AM	PM	
2025 Implementation Year + Depot Traffic	D	D	0.356	0.276	Acceptable overall
2030 Future Year+ Depot traffic	D	D	0.402	0.311	Acceptable overall

	2025		2030		Comments
	LOS	Delay (sec)	LOS	Delay (sec)	
AM					2025 and 2030: SIDRA analyses indicate that the depot development traffic has a small impact on the intersection, however it is expeceted to operate at an acceptable LOS in the AM and PM peak hour.
PM					

35

8.2.1 Analysis of Intersection 04 during depot peak hour

As discussed in Section 7.3.1, the peak hour for depot operations is different to the peak hour for traffic along PWBB. To ensure that the Site 04 (intersection closest to the depot) can accommodate the trips in and out of the depot during the depot peak hour (when the sum of the number of busses in and out of the depot is at a maximum), the operation of this intersection was also tested for the depot peak hour (08:15 – 09:15 and 14:45 – 15:45).

LOS for this intersection is based on the delay per approach. The results of the analysis are in Table 31 and Figure 16.

Table 31:Analysis results for Intersection 04 – 2025 Implementation Year + Depot Traffic (Depot peak hour)

Intersection 04	LOS		v/c ratio		Remarks
Scenario	AM (08:15 – 09:15)	PM (14:45 – 15:45)	AM	PM	
2025 Implementation Year + Depot Traffic	N/A	N/A	0.358	0.313	Acceptable

AM peak hour (08:15 – 09:15) PM peak hour (14:45 – 15:45)

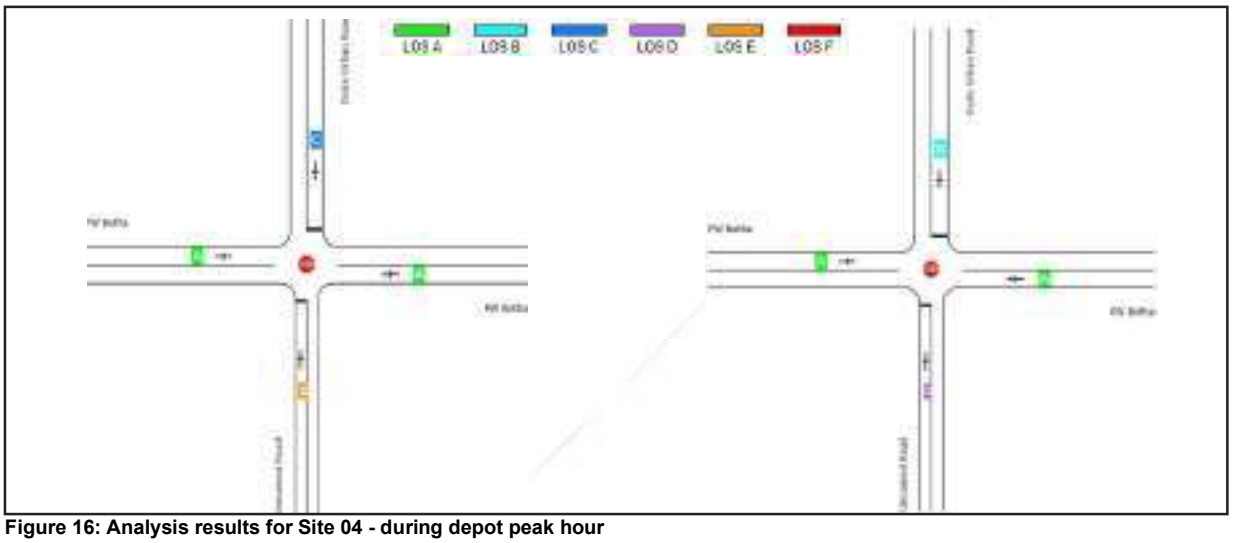


Figure 16: Analysis results for Site 04 - during depot peak hour

It appears that

- AM (Depot) Peak Hour: although the southern approach to this intersection (from the depot) experience LOS E, the queue length on this approach is 6m and the v/c ratio is 0.358. Therefore, this intersection has sufficient capacity and operates at acceptable LOS.
- PM (Depot) Peak Hour: This intersection operates at an acceptable LOS.
- SIDRA analysis indicates that left and right turns lanes at the southern approach to this intersection are not required. However, to minimise delays and improve GO GEORGE operational efficiency, a dedicated right turn lane can be considered

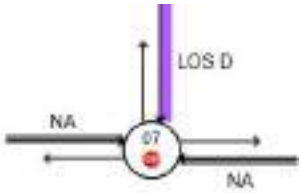
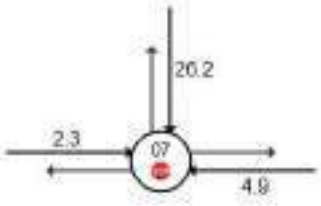
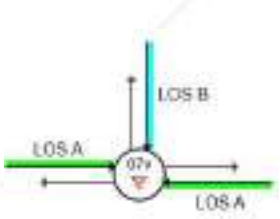
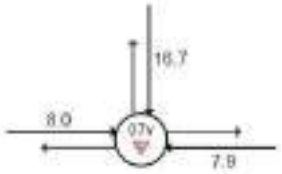
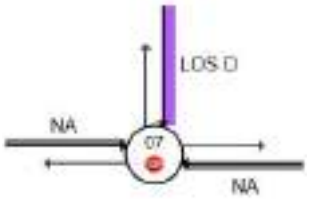
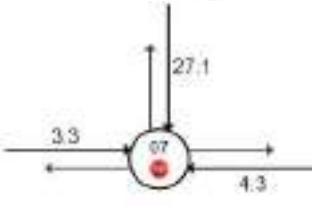
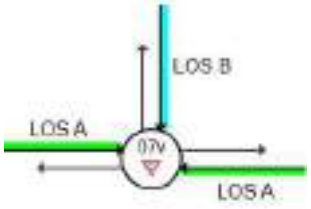
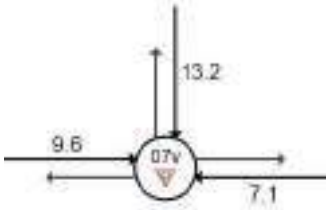
8.3 Intersection 07 - Rand / PWBB Intersection

As indicated in Section 6.3 this intersection would require intervention by 2030. This is not as a result of the expected depot traffic but rather as a result of the expected increase in background traffic. It was therefore assumed that this intersection will be upgraded to a roundabout as recommended in Section 6.3.

The depot development traffic was added to the expected 2025 and 2030 background traffic respectively and modelled in SIDRA. The results in terms of LOS, queue length and delay are shown in Table 32

Table 32: Analysis results for Intersection 07 –2025 Implementation and 2030 future year + depot traffic

Intersection 07	LOS		v/c ratio		Remarks
Scenario	AM	PM	AM	PM	
2025 + Depot traffic (T-junction)	D	D	0.825	0.842	Acceptable Overall
2030 + Depot traffic (Roundabout)	B	A	0.706	0.817	Acceptable Overall

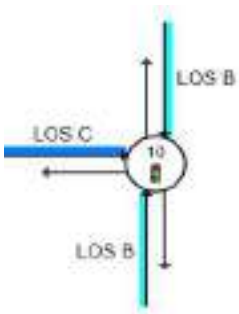
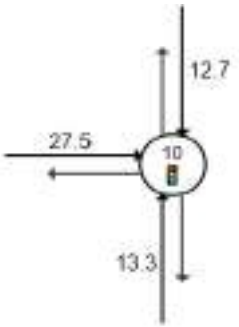
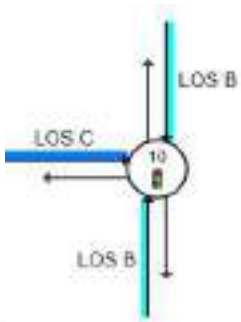
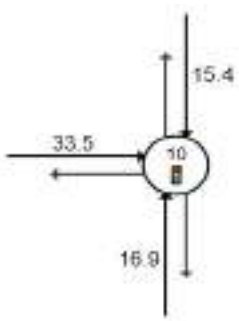
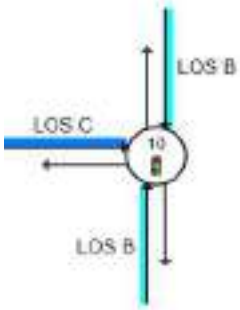
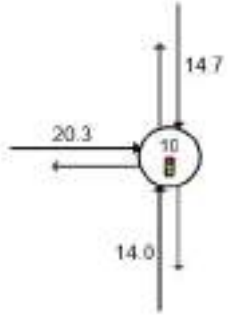
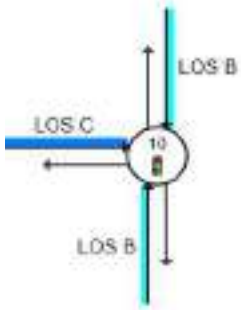
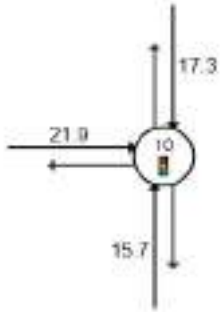
	2025		2030 - UPGRADED		Comments
	LOS	Delay (sec)	LOS	Delay (sec)	
AM					2025: the T-junction configuration with depot traffic added operate at an acceptable LOS in the AM and PM peak hour. 2030: When the depot development traffic is added to the 2030 background traffic, the roundabout configuation shows little to no dealys in the AM and PM peak.
PM					

8.4 Intersection 10 - NMB/ PWBB

The development traffic was added to the expected 2025 and 2030 background traffic respectively and modelled in SIDRA. The results it LOS, queue length and delay are reflected in Table 33

Table 33: Analysis results for Intersection 10 –2025 implementation year and 2030 future year + depot traffic

Intersection 10	LOS		v/c ratio		Remarks
Scenario	AM	PM	AM	PM	
2025 + Depot traffic	B	B	0.769	0.722	Acceptable Overall
2030 + Depot traffic	B	B	0.919	0.780	Acceptable Overall

	2025		2030		Comments
	LOS	Delay (sec)	LOS	Delay (sec)	
AM					2025 and 2030: Considering the results of the peak hour analysis, it appears that the development traffic has little to no impact on this interesection. No improvements are required.
PM					

9 Summary of Operational Analysis

Intersection 01	Signal-controlled intersection
2021 Base Year	AM Peak Hour: this intersection operates at an acceptable level in the AM peak hour. PM Peak Hour: This intersection, in its current state, operates close to its capacity in the PM peak hour. Some movements experience LOS F.
Proposed Mitigation Measures prior to development	Improved signal phasing and timing (MM1)
2025 Implementation Year (with MM1)	Although the overall intersection LOS is acceptable (LOS D), this intersection will operate at capacity by 2025 (v/c > 1).
2030 Future Year traffic (with MM1)	Without additional improvements, operating conditions will worsen, and all approaches are expected to be congested.
Proposed Additional Mitigation Measures prior to development	Mitigation measures to relieve congestion in the short term (MM2): • short exit lane into PW Botha • reconfiguration of the York Street southern approach • an additional left turn lane on the PWBB eastern approach More extensive upgrades will be required should traffic increase more than 2.5% per annum or any additional development traffic be added to the network
2025 Implementation Year (with MM2)	The overall intersection LOS is acceptable (LOS B/C), Even with MM2, this intersection will operate close to capacity by 2025 (refer to Table 15).
2030 Implementation Year (with MM2)	The overall intersection LOS is acceptable (LOS D/C), however this intersection will operate at capacity by 2030 (v/c = 1) (refer to Table 15).
2025 + Depot traffic (with MM2)	The overall intersection LOS is acceptable (LOS B/C), however this intersection will operate close to capacity by 2025 (refer to Table 27). Comparing this result with the **2025 Implementation Year** analysis, indicates that the development traffic has little to no impact during the AM and PM peak hour at this intersection.
2030 + Depot traffic (with MM2)	The overall intersection LOS is acceptable (LOS D/C). However, this intersection will operate at capacity by 2030 (v/c = 1) (refer to Table 27). Comparing this result with the **2030 Implementation Year** analysis, indicates that the development traffic has little to no impact during the AM and PM peak hour at this intersection.
Conclusion	• Analysis of the Base Year (2021) traffic conditions indicates that some movements at this intersection experience LOS F. The v/c ratio is greater than 1, indicating that is intersection is operating above its capacity (without any development traffic added)

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	• Without any additional traffic added, this intersection will continue to operate at LOS E and F in the AM and PM peak hour (2025). • By adjusting the signal phasing (MM1) the intersection performance can be improved from LOS F to C. However, this improvement is short lived as the operating conditions worsen to LOS F by 2030 (without additional depot traffic) • With additional upgrades (MM2) and the development traffic added, this intersection is expected to operate at an acceptable LOS in 2025 (LOS C and B) and 2030 (LOS D and C). However, the intersection will be congested as the overall v/c ratio for this intersection exceeds 1. • Further capacity can be added by dualling PWBB.The impact of trips to and from the depot have on this intersection is minimal

Intersection 04	**Two way stop-controlled intersection with the Ossie Urban approaches being stop controlled.**
2021 Base Year	The level of service in the AM and PM peak hour is considered to be acceptable
2025 Implementation Year	AM and PM peak hour analyses indecate that this intersection is expected to operate at a LOS C.
2030 Future Year traffic	Although the operating conditions of this intersection worsens slightly, it continues to operate at an acceptable LOS C and D.
2025 + Depot traffic	Considering the results of the peak hour analysis, it appears that the development traffic has little to no impact during the AM and PM peak hour at this intersection.
2030 + Depot traffic	Considering the results of the peak hour analysis, it appears that the development traffic has little to no impact during the AM and PM peak hour at this intersection.
Additional Analysis	Analysis of Intersection 04 during depot peak hour
Conclusion	• Acceptable LOS on all approaches in the AM and PM peak hours even when depot development traffic is added. • SIDRA analysis shows that the Northern and Southern approach would experience some delays, however the queue length report shows lengths not exceeding 1 – 2 vehicles, thus it can be concluded no improvements are recommended for this intersection.

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Intersection 07	This intersection is a two way stop controlled intersection with Northern approach being stop controlled
2021 Base Year	The level of service in the AM and PM peak hour is considered to be acceptable
2025 Implementation Year	Acceptable LOS in the AM and PM peak hour.
2030 Future Year traffic	The northern approach to this intersection will experience long delays in the AM peak hour, resulting in this approach operating at LOS F. During the PM peak hour, the intersection operates at an acceptable LOS.
Proposed Mitigation Measures	• Intersection 07 would need to be upgraded to accommodate the expected 2030 Future Year traffic. • It is recommended that the site be upgraded to a roundabout or signalized intersection.
2025 + Depot traffic (T-junction)	The T-junction configuration with depot traffic added operates at an acceptable LOS in the AM and PM peak hours
2030 + Depot traffic (Roundabout)	When the depot development traffic depot is added to the 2025 and 2030 background traffic, the roundabout configuration shows little to no delays in the AM and PM peak.
Conclusion	• From the analysis it is seen that with development traffic the LOS for the roundabout configuration is acceptable. • No further upgrades required as a result of development

Intersection 10	Signal-controlled intersection
2021 Base Year	The level of service in the AM and PM peak hour is considered to be acceptable
2025 Implementation Year	Acceptable LOS in the AM and PM peak hour.
2030 Future Year traffic	Acceptable LOS in the AM and PM peak hour.
2025 + Depot traffic	Considering the results of the peak hour analysis, it appears that the development traffic has little to no impact on this intersection.
2030 + Depot traffic	Considering the results of the peak hour analysis, it appears that the development traffic has little to no impact on this intersection.
Conclusion	No improvements are required.

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10 Analysis of Other Developments

In addition to the proposed depot development there are two other developments planned within the study area. These are:

- Residential development east of the depot site and
- An industrial development south/west of the proposed depot site.

The details of each development and it's expected impact are discussed in the following paragraphs.

10.1 Residential Development

The proposed residential development is shown in Figure 17. The traffic impact statement for this development on Erf 464, was consulted to estimate ascertain the number of trips to and from the Erf 464 development. The proposed residential development will consist of the following:

- 661 low-income residential erven
- 3 transport zones
- 6 public open spaces
- 1 business zone
- 2 creches
- 1 Authority erven.

The Site Development Plan, prepared by Delplan Urban and Regional Planners, is attached as Appendix F.



Figure 17: Locality of residential development

10.1.1 Trip generation

The AM and PM peak hour trips from the report are reflected in Table 34 below. The trip distribution of the generated trips is shown in Figure 18

Table 34: Trip generation for residential development

Proposed Land-Use	Erven /Area	Trip Generation per dwelling	Split In/Out	PEAK HOUR TRIPS			
				AM		PM	
				IN	OUT	IN	OUT
Subsidy Housing	661	0.2	AM (35/65) PM (65/35)	46	86	86	46
Authority (general offices)	408m^2	2.3/100m^2	AM (85/15) PM (15/85)	1	8	8	1
Business (Retail discounted with 20%)	224.5 x GLA$^{-0.34}$	436m^2 GLA	AM PM (50/50)	-	-	14	14
Creche's	2	Will only generate internal trips					
Total				**47**	**96**	**108**	**61**

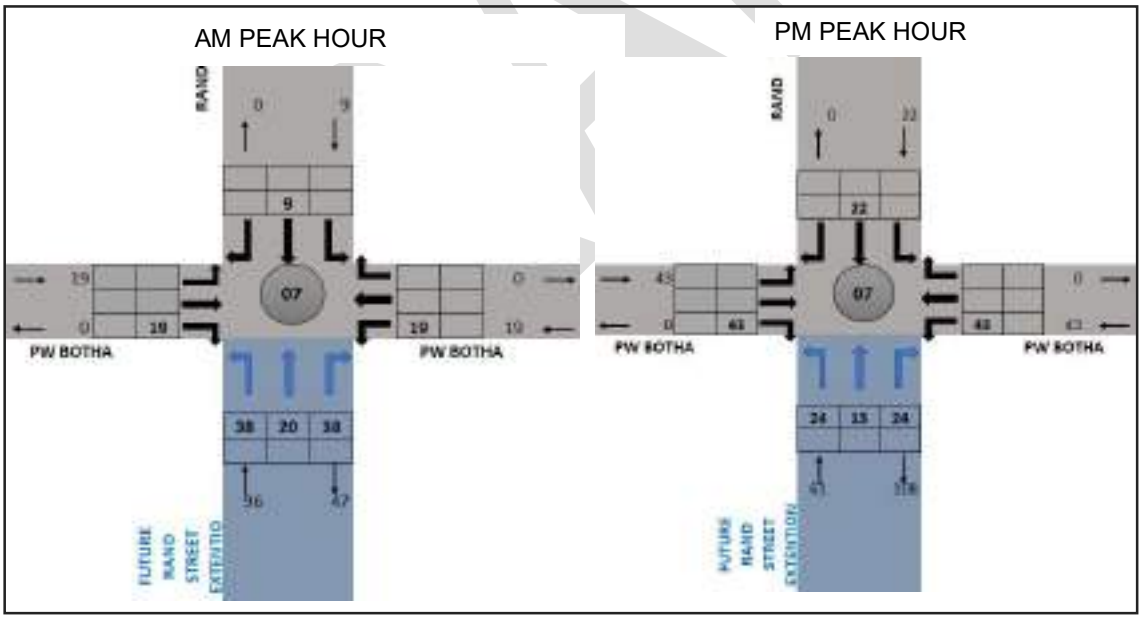


Figure 18: Trips generated by residential development at Site 07

10.2 Industrial Development

Information about the proposed industrial development bordering the southern and eastern edge of the proposed depot site was limited to the layout plan (Figure 19).

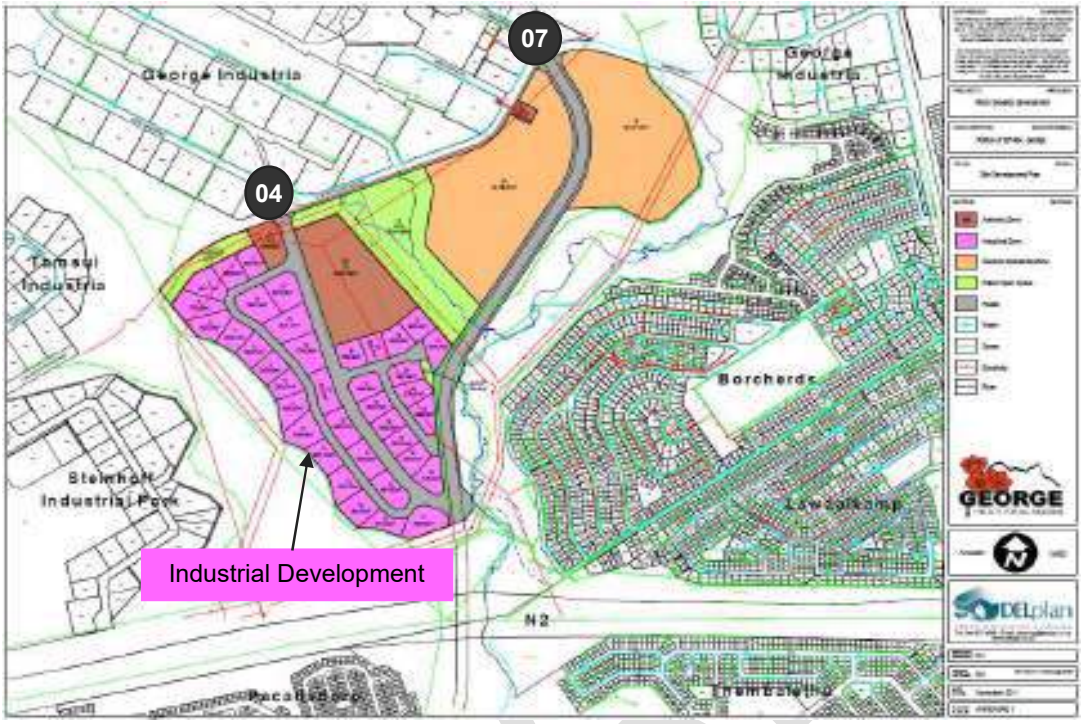


Figure 19: Proposed industrial development layout plan

10.2.1 Trip generation

Using the property sizes indicated on the layout plan and the TMH 17-Trip Data Manual, the number of peak hour trips that the industrial development is expected to generate could be calculated.

Table 35 shows the expected number of light and heavy vehicle trips that will be generated by this development.

Table 35: Trip generation for industrial development

Land Use	Size	Trip Rate		Unit	AM		PM		Split In/Out	
		AM	PM		IN	OUT	IN	OUT	AM	PM
Industrial Area Park COTO Land Use Code 130	1638	0.80	0.80	m^2	918	394	328	983	70:30	25:75
				Total	**1312**		**1311**			
		Light	**95%**		872	374	311	933		
		Heavy	**5%**		46	20	16	49		

10.2.2 Trip Distribution:

The following was assumed:

- 40% of trips will exit the development towards Intersection 04 an the split 50/50 left and right into PWBB
- 60% of trips will exit the development via Intersection 07 and then split 40/60 left and right into Rand Street and PWBB respectivley.



Figure 20: Trip distribution of industrial development

The trips developed by the industrial development and distributed in Figure 20 above will be used to analyse the impact on the study intersections in the implementation year 2025.

10.3 Analysis results

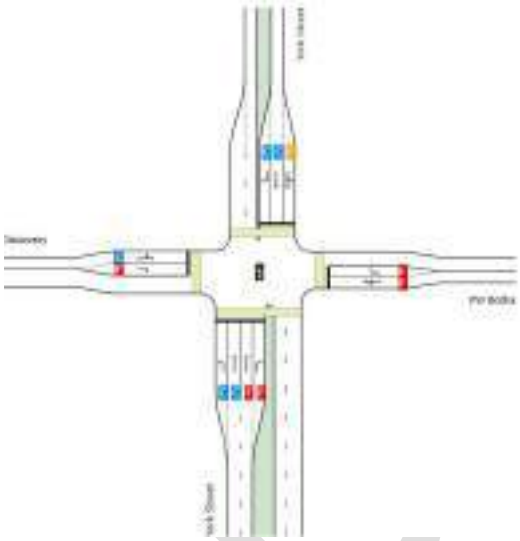
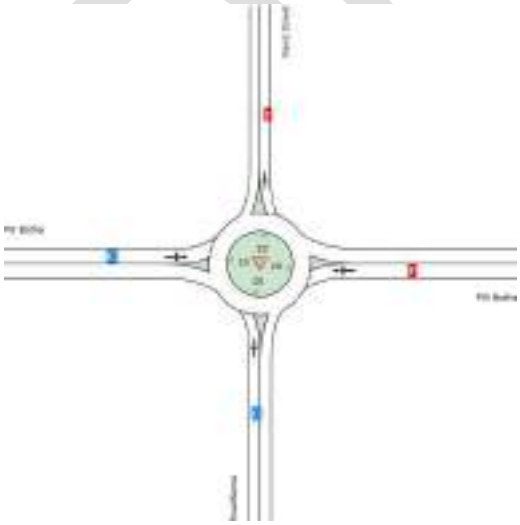
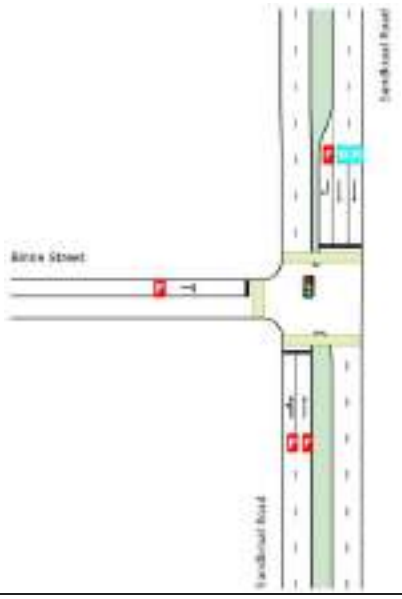
The trips generated by the residential and industrial development were added to 2025 Future Year + Depot Traffic development scenario to investigate how the study intersections will perform should all planned development go ahead.

Table 36 shows the results of the SIDRA Analysis with all additional traffic added to the 2025 expected background traffic. It is clear that all intersections along PWBB will be congested. The trips generated by the industrial development proves to have a major impact on the network and thus a more detail traffic impact assessment would need to be conducted to investigate possible road network upgrades. Table 37 shows the LOS results.

Table 36: Summary of analysis results for 2025 + depot and other traffic

Scenario	Intersection	LOS		v/c ratio		Remarks
		AM	PM	AM	PM	
2025 + Depot + residential + industrial traffic	Intersection 01	F	F	1.199	1.499	Not Acceptable
	Intersection 04	F	F	1.242	1.112	Not Acceptable
	Intersection 07	F	F	1.339	1.616	Not Acceptable
	Intersection 10	F	F	1.474	1.433	Not Acceptable

Table 37: LOS summaries of analysis results for 2025 + depot and other traffic

LOS – Intersection 01	LOS – Intersection 04
	
LOS – Intersection 07	**LOS – Intersection 10**
	

11 Conclusions

Development

The proposed permanent development includes parking area for 194 buses, administrative and other depot related facilities within an area of approximately 1580m^2, is planned to be operational by 2025. The depot is located adjacent to PWBB(Class 3 – District Distributor) which is connected to York Street (Class 2 - Primary arterial) and NMB (Class 3 - District Distributor)

Access

Two accesses are proposed to the depot site. The first is 120m from PWBB which will give access to the parking areas for private vehicles. A second access is 200m from the first and approximately 320m from the PWBB intersection. This access will only be used by the bus fleet and will have two entry and two exit lanes.

Throat length calculations indicate that the length of the bus access should be at least 60m and 2 entrance lanes be provided. This stacking distance can accommodate 4 Standard buses.

The number of vehicles turning south at the intersection of PWBB, and Ossie Urban Street warrants an eastbound right turn lane along PWBB. The westbound direction (PWBB) warrants a left turn taper.

Parking

Based on the requirements in the George Municipality Integrated Zoning Scheme By-Law (September 2017) and Bus Depot Design Guidelines, 93 parking bays for passenger cars and 194 bays for busses will be provided.

Existing traffic conditions

The existing traffic conditions were evaluated based on the traffic counts undertaken at the study intersections along PWBB. Considering the reduction in traffic that was observed due to the impact of the Covid-19 pandemic, it was assumed that the 2019 traffic conditions are more or less similar to the current 2021 traffic conditions. A 2.5% annual traffic growth rate was assumed to estimate the 2030 traffic conditions. Considering the Base Year (2021) traffic volumes, Intersection 01 operates close to capacity. Signal timing improvements will improve the LOS of this intersection slightly. All other intersections operate at acceptable LOS and does not require upgrades.

Trip generation

The Trip Data Manual (TMH) 17 makes no reference to a bus depot as a land use type and therefore does not provide a trip generation rate for such a facility. Data captured on the gate control sheets obtained from the existing depot management was used to estimate the trip generation rate of the proposed bus depot.

The number of trips the depot will generate was calculated for the road network peak hour and the depot peak hour.

Impact of depot development traffic

Intersection 01:

- Analysis of the Base Year (2021) traffic conditions indicates that some movements at this intersection experience LOS F. The v/c ratio is greater than 1, indicating that is intersection is operating above its capacity (without any development traffic added)
- Without any additional traffic added, this intersection will continue to operate at LOS E and F in the AM and PM peak hours respectively (2025).

DRAFT

- By adjusting the signal phasing (MM1) the intersection performance can be improved from LOS F to C. However, this improvement is short lived as operating conditions worsen to LOS F by 2030 (without additional depot traffic)
- With additional upgrades (MM2) and the development traffic added, this intersection is expected to operate at an acceptable LOS in 2025 (LOS C and B) and 2030 (LOS D and C), however the intersection will be congested as the overall v/c ratio for this intersection exceeds 1.
- Further capacity can be added by dualling PWBB.The impact of trips to and from the depot have on this intersection is minimal

Intersection 04:

- When the depot development traffic is added this intersection, it is expected to operate at an acceptable LOS on all approaches in the AM and PM peak hours.
- SIDRA analysis reports that the Northern and Southern approaches would experience some delays, however the queue length is not expected to exceed 1 – 2 vehicles. It can be concluded that no improvements are recommended for this intersection.
- SIDRA analysis indicated that left and right turns lanes at the southern approach to this intersection is not required, however, to minimise delays and improve GOGEORGE operational efficiency, a separate right turn lane can be considered.

Intersection 07:

- From the analysis it is seen that with development traffic the LOS for the roundabout configuration is acceptable.
- No further upgrades required as a result of development

Intersection 10:

- No improvements are required.

Other developments considered

In addition to the proposed depot development there are two other developments planned within the study area. Should these developments and the depot development go ahead the intersections in the study area need to be upgraded and PWBB possibly dualled.

12 Final Recommendations

Without considering any additional development traffic, Intersections 01 and 07 require upgrades.

Consequently, it is recommended that:

- Intersection 01 be upgraded to by adding a short exit lane into PWBB by 2030, reconfiguration of the York Street southern approach to PWBB and adding an additional left turn lane on the PWBB eastern approach to York Street.
- Intersection 07 be upgraded to a single lane roundabout by 2030

The depot development traffic has a small impact on an existing traffic situation at intersections along PWBB.

Should all planned development go ahead, PWBB would require dualling.

DRAFT

In diversity there is beauty and there is strength.

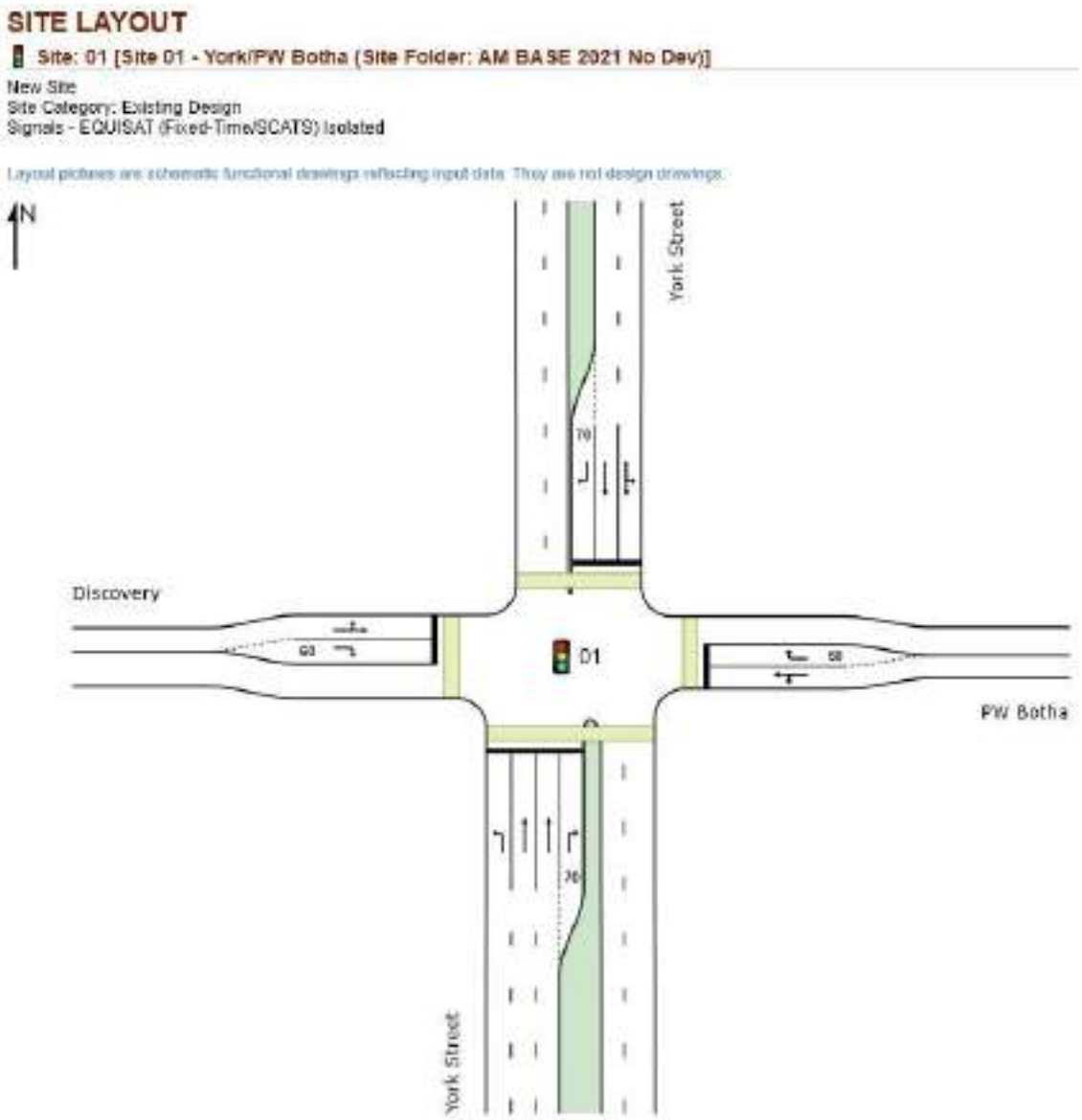
MAYA ANGELOU

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DRAFT

Appendix A: Existing Geometric Layouts of Study intersections

Site 01 - York / Discovery / PW Botha



Appendix A: Existing Geometric Layouts of Study intersections

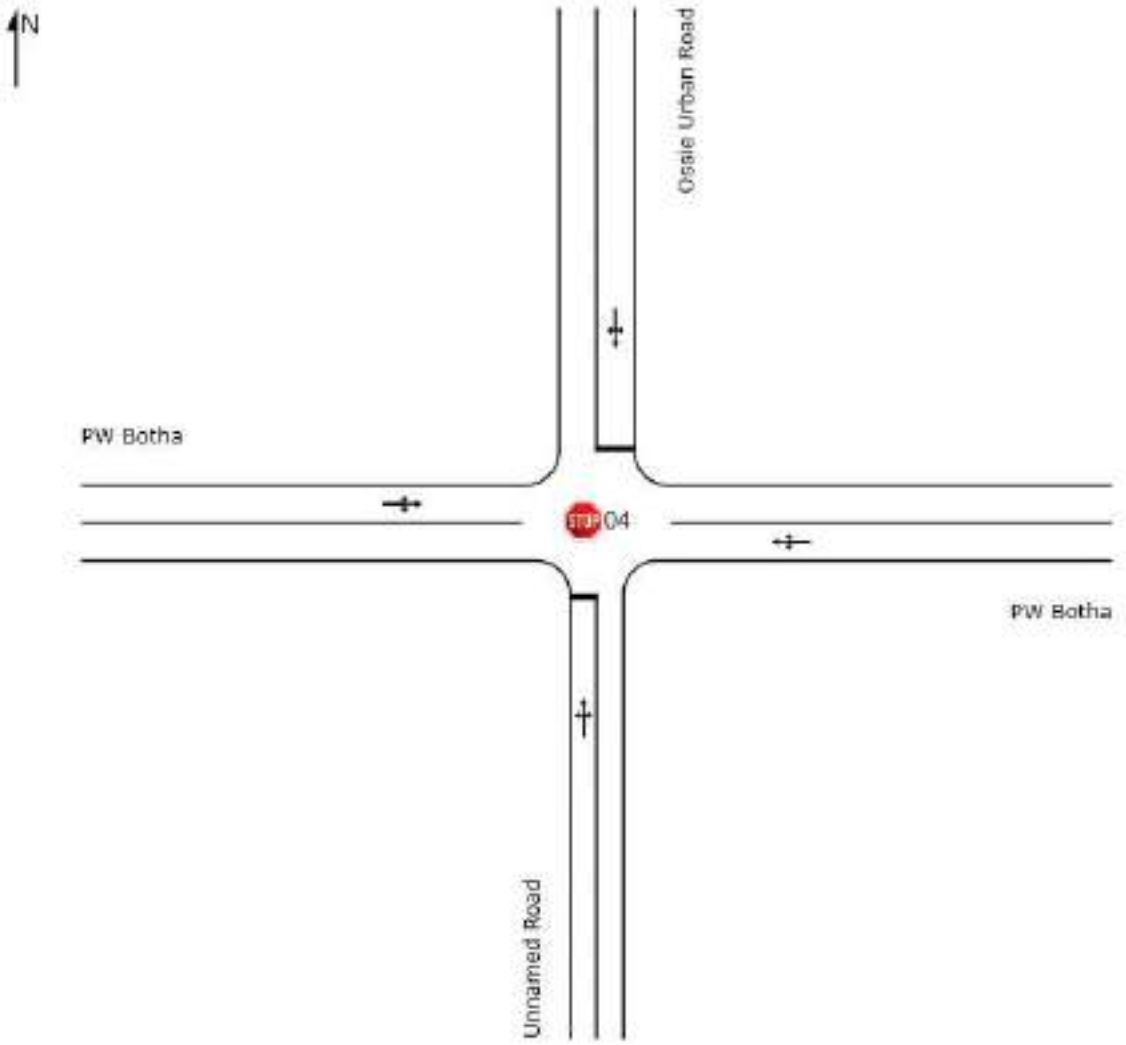
Site 04 - Ossie Urban / PW Botha

SITE LAYOUT

Site: 04 [Site 04 - Ossie Urban/PW Botha (Site Folder: AM BASE 2021 No Dev)]

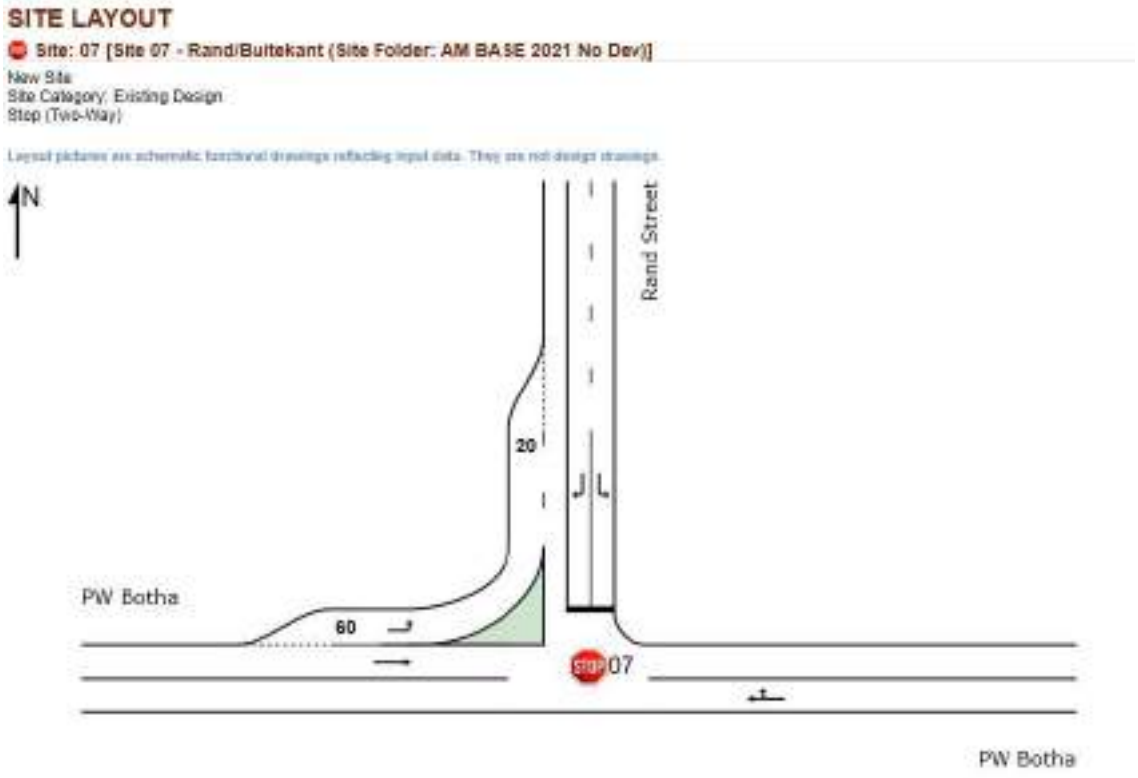
New Site
Site Category: Existing Design
Stop (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Appendix A: Existing Geometric Layouts of Study intersections

Site 07 - Rand / PW Botha /Buitekant



Appendix A: Existing Geometric Layouts of Study intersections

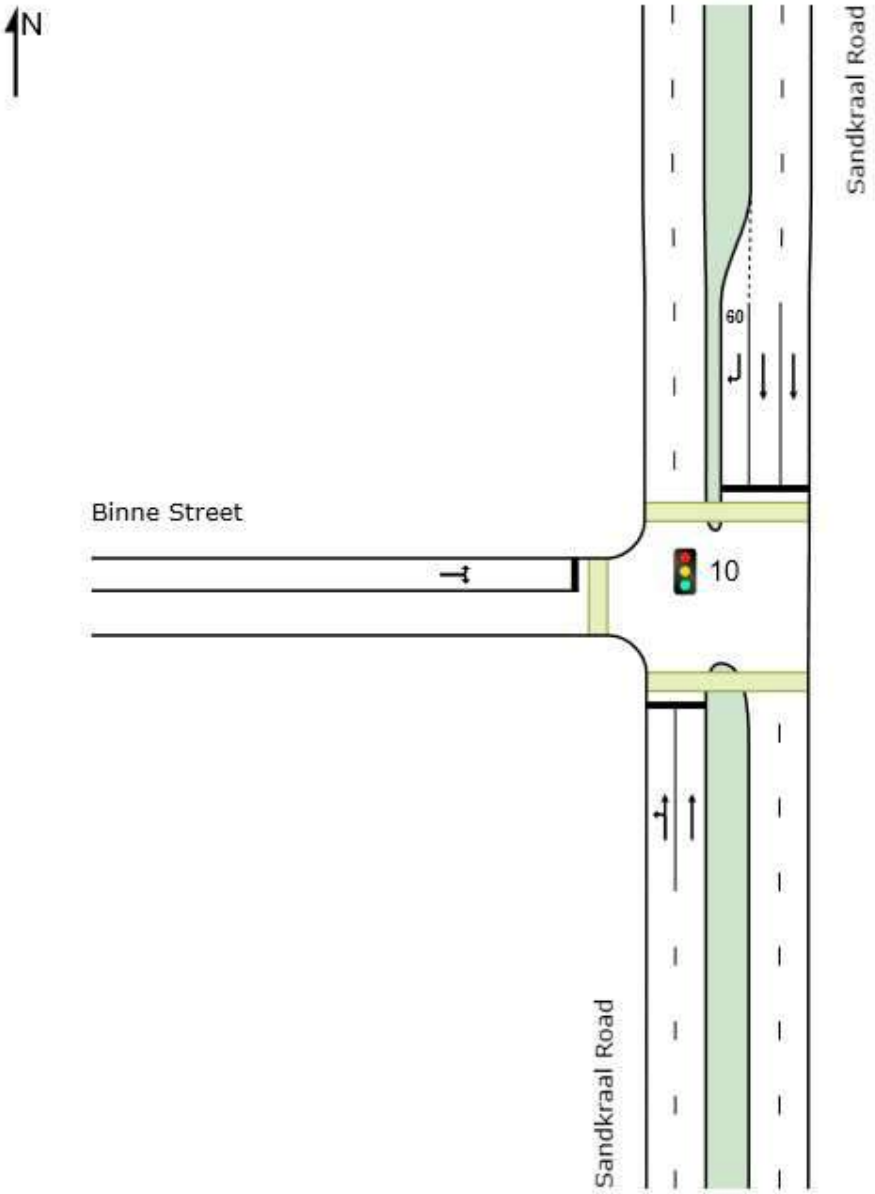
Site 10 - Binne / Sandkraal

SITE LAYOUT

Site: 10 [Site 10 - Binne/Sandkraal (Site Folder: AM BASE 2021 No Dev)]

New Site
Site Category: Existing Design
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



APPENDIX B: SITE TRAFFIC COUNTS

TRAFFIC COUNT - ALL VEHICLES

INTERSECTION: **Discovery Road/PW Botha Boulevard/Yo**
PERIOD: **12 Hours**
DATE: **30 May 19**

SITE 01

Total Traffic														Hourly Totals
TIME		Traffic Movements												
Start	End	1	2	3	4	5	6	7	8	9	10	11	12	Total	
06:00	06:15	8	14	9	3	3	11	6	4	2	14	17		**91**	
06:15	06:30	8	7	8	26	79	39	19	9	2	15	81	20	**313**	
06:30	06:45	13	11	12	39	165	87	15	11	6	47	78	27	**511**	
06:45	07:00	18	19	13	55	161	95	16	20	8	75	80	61	**621**	**1536**
07:00	07:15	21	15	10	18	96	38	25	14	5	99	90	99	**530**	**1975**
07:15	07:30	28	31	13	32	179	109	27	22	13	100	101	80	**735**	**2397**
07:30	07:45	20	45	25	75	295	150	48	67	30	47	55	30	**887**	**2773**
07:45	08:00	22	28	21	39	200	111	47	41	27	37	37	25	**635**	**2787**
08:00	08:15	30	35	35	37	143	66	35	26	25	28	63	44	**567**	**2824**
08:15	08:30	36	39	24	22	125	54	32	23	22	20	71	31	**499**	**2588**
08:30	08:45	30	25	29	22	136	69	31	21	26	33	85	39	**546**	**2247**
08:45	09:00	27	22	28	21	123	46	39	19	27	29	79	32	**492**	**2104**
09:00	09:15	31	24	24	19	116	36	35	18	21	68	90	28	**510**	**2047**
09:15	09:30	36	28	14	25	120	38	36	21	23	41	72	35	**489**	**2037**
09:30	09:45	39	22	24	23	137	69	38	20	24	31	61	32	**520**	**2011**
09:45	10:00	34	29	24	29	135	40	31	21	25	26	41	25	**460**	**1979**
10:00	10:15	32	31	10	28	110	47	38	20	28	41	55	21	**461**	**1930**
10:15	10:30	32	40	23	32	100	48	39	22	29	17	21	11	**414**	**1855**
10:30	10:45	38	34	22	28	92	41	34	19	23	21	24	16	**392**	**1727**
10:45	11:00	27	23	15	28	91	43	37	25	22	28	54	40	**433**	**1700**
11:00	11:15	33	26	13	33	132	47	33	23	31	24	53	32	**480**	**1719**
11:15	11:30	32	22	14	20	91	34	32	21	23	43	68	30	**430**	**1735**
11:30	11:45	32	22	23	25	126	39	29	22	24	34	61	39	**476**	**1819**
11:45	12:00	40	30	28	33	116	43	25	20	19	34	74	32	**494**	**1880**
12:00	12:15	27	17	11	30	115	51	21	19	16	29	69	27	**432**	**1832**
12:15	12:30	19	20	22	26	108	33	23	21	17	20	87	21	**417**	**1819**
12:30	12:45	34	29	21	25	120	45	47	26	15	38	108	39	**547**	**1890**
12:45	13:00	33	15	25	29	123	39	43	34	41	27	101	36	**546**	**1942**
13:00	13:15	43	30	33	34	104	48	39	29	45	27	133	26	**591**	**2101**
13:15	13:30	42	28	23	17	96	32	44	22	25	46	135	29	**539**	**2223**
13:30	13:45	38	24	27	23	115	43	45	24	32	32	95	29	**527**	**2203**
13:45	14:00	22	19	19	29	133	41	52	26	26	48	122	33	**570**	**2227**
14:00	14:15	28	13	25	31	114	55	38	16	19	50	86	39	**514**	**2150**
14:15	14:30	13	21	18	22	94	50	51	22	29	22	96	39	**477**	**2088**
14:30	14:45	21	12	16	26	104	65	50	21	18	27	71	26	**457**	**2018**
14:45	15:00	26	14	11	27	85	32	56	19	12	34	91	27	**434**	**1882**
15:00	15:15	35	18	26	33	128	60	45	14	24	16	76	25	**500**	**1868**
15:15	15:30	37	20	17	16	80	35	55	23	20	18	100	15	**436**	**1827**
15:30	15:45	32	23	28	25	103	58	44	17	26	36	127	18	**537**	**1907**
15:45	16:00	25	19	22	24	114	52	39	16	11	39	125	22	**508**	**1981**
16:00	16:15	27	30	23	35	131	37	52	20	35	22	133	11	**556**	**2037**
16:15	16:30	44	32	26	17	122	43	44	13	27	39	217	27	**651**	**2252**
16:30	16:45	37	19	23	27	149	59	73	25	32	55	340	24	**863**	**2578**
16:45	17:00	43	21	33	31	111	48	143	53	17	40	260	23	**823**	**2893**
17:00	17:15	71	48	105	16	97	41	69	32	21	7	160	7	**674**	**3011**
17:15	17:30	51	8	48	20	106	26	57	6	28	5	109	11	**475**	**2835**
17:30	17:45	33	15	31	17	108	38	38	7	17	19	112	16	**451**	**2423**
17:45	18:00	16	11	15	14	92	28	30	7	17	12	98	18	**358**	**1958**
18:00	18:15													**0**	**1284**
18:15	18:30													**0**	**809**
18:30	18:45													**0**	**358**
18:45	19:00													**0**	**0**
TOTAL		1464	1128	1109	1306	5723	2459	1945	1041	1055	1660	4562	1417		
EST. 24 HR															

TRAFFIC COUNT - ALL VEHICLES

INTERSECTION: **PW Botha Boulevard//unnamed**
PERIOD: **12 Hours**
DATE: **30 May 19**

SITE 04

Total Traffic														Hourly Totals
TIME		Traffic Movements												
Start	End	1	2	3	4	5	6	7	8	9	10	11	12	Total	
06:00	06:15													**0**	
06:15	06:30													**0**	
06:30	06:45													**0**	
06:45	07:00	8	51						41					**100**	**100**
07:00	07:15	9	94						87	6	3			**199**	**299**
07:15	07:30	12	102						96	8	5		4	**227**	**526**
07:30	07:45	30	161						132	15	6		8	**352**	**878**
07:45	08:00	18	119						45	4	5		7	**198**	**976**
08:00	08:15		43						41	2	7		8	**101**	**878**
08:15	08:30	4	84						71	5	4		6	**174**	**825**
08:30	08:45	4	111						81	5	8		3	**212**	**685**
08:45	09:00	2	90						65	2	13		9	**181**	**668**
09:00	09:15	3	80						76	3	8		2	**172**	**739**
09:15	09:30	6	80						82	6	8		2	**184**	**749**
09:30	09:45	4	97						67	5	3		2	**178**	**715**
09:45	10:00	6	66						75		8		3	**158**	**692**
10:00	10:15	7	75						63	4	8		3	**160**	**680**
10:15	10:30	1	89						65	3	5		2	**165**	**661**
10:30	10:45	9	88						58	2	8		4	**169**	**652**
10:45	11:00	2	88						43	1	6		2	**142**	**636**
11:00	11:15	3	82						55		4		2	**146**	**622**
11:15	11:30	4	67						57	4	5		3	**140**	**597**
11:30	11:45	7	92						64	4	6		5	**178**	**606**
11:45	12:00	8	49						76	3	1		2	**139**	**603**
12:00	12:15	6	102						63	7	4			**182**	**639**
12:15	12:30	7	119						51	8	5		4	**194**	**693**
12:30	12:45	3	75						54	5	7		3	**147**	**662**
12:45	13:00	24	96						56	3	6		1	**186**	**709**
13:00	13:15	3	109						46	7	9		5	**179**	**706**
13:15	13:30	4	90						55	7	10		3	**169**	**681**
13:30	13:45	3	30						45	6	6		7	**97**	**631**
13:45	14:00	8	67						48	2	4		9	**138**	**583**
14:00	14:15	6	66						60	2	7		5	**146**	**550**
14:15	14:30	6	56						69	5	4		8	**148**	**529**
14:30	14:45	2	71						66	3	6		7	**155**	**587**
14:45	15:00	2	79						69	3	3		4	**160**	**609**
15:00	15:15	2	81						55	6	7		9	**160**	**623**
15:15	15:30	3	80						89	7	8		6	**193**	**668**
15:30	15:45	3	98						38	4	2		8	**153**	**666**
15:45	16:00	7	84						92	10	5		7	**205**	**711**
16:00	16:15	2	68						81	8	4		5	**168**	**719**
16:15	16:30	7	94						62	6	3		7	**179**	**705**
16:30	16:45	8	84						82	9	4		9	**196**	**748**
16:45	17:00	7	106						94	4	3		10	**224**	**767**
17:00	17:15	12	100						94	6			9	**221**	**820**
17:15	17:30		80						70	3	2		8	**163**	**804**
17:30	17:45	2	95						71	5	4		4	**181**	**789**
17:45	18:00	2	75						51	1	3		5	**137**	**702**
18:00	18:15													**0**	**481**
18:15	18:30													**0**	**318**
18:30	18:45													**0**	**137**
18:45	19:00													**0**	**0**
TOTAL		276	3813	0	0	0	0	0	3001	209	237	0	220		
EST. 24 HR															

TRAFFIC COUNT - ALL VEHICLES

INTERSECTION: **PW Botha Boulevard//Rand Street**

PERIOD: **12 Hours**

DATE: **29 May 19**

SITE 07

Total Traffic														Hourly Totals
TIME		Traffic Movements												
Start	End	1	2	3	4	5	6	7	8	9	10	11	12	Total	
06:00	06:15										18		16	**34**	
06:15	06:30	6	5								15		17	**43**	
06:30	06:45	9	45								8		3	**65**	
06:45	07:00	37	63						65	36	34		31	**266**	**408**
07:00	07:15	61	117						66	66	83		42	**435**	**809**
07:15	07:30	63	111						66	29	21		11	**301**	**1067**
07:30	07:45	20	35						76	49	61		52	**293**	**1295**
07:45	08:00	52	78						60	48	34		56	**328**	**1357**
08:00	08:15	53	51						57	46	52		66	**325**	**1247**
08:15	08:30	76	97						47	20	41		46	**327**	**1273**
08:30	08:45	41	77						60	20	36		32	**266**	**1246**
08:45	09:00	21	31						40	22	24		32	**170**	**1088**
09:00	09:15	37	51						54	29	37		38	**246**	**1009**
09:15	09:30	43	45						43	17	28		32	**208**	**890**
09:30	09:45	59	68						69	27	32		42	**297**	**921**
09:45	10:00	20	35						40	22	26		36	**179**	**930**
10:00	10:15	59	67						49	26	26		43	**270**	**954**
10:15	10:30	30	39						53	31	21		44	**218**	**964**
10:30	10:45	61	66						49	19	37		38	**270**	**937**
10:45	11:00	31	26						57	24	13		23	**174**	**932**
11:00	11:15	38	55						57	15	24		45	**234**	**896**
11:15	11:30	47	58						25	21	17		36	**204**	**882**
11:30	11:45	65	70						54	26	30		45	**290**	**902**
11:45	12:00	22	25						50	39	22		45	**203**	**931**
12:00	12:15	50	57						54	21	27		42	**251**	**948**
12:15	12:30	54	50						50	20	18		32	**224**	**968**
12:30	12:45	44	39						54	29	33		51	**250**	**928**
12:45	13:00	48	66						62	47	29		34	**286**	**1011**
13:00	13:15	55	49						52	43	39		30	**268**	**1028**
13:15	13:30	53	64						62	23	44		34	**280**	**1084**
13:30	13:45	50	44						52	42	30		38	**256**	**1090**
13:45	14:00	44	29						35	28	23		48	**207**	**1011**
14:00	14:15	51	54						42	32	45		46	**270**	**1013**
14:15	14:30	47	37						49	45	27		41	**246**	**979**
14:30	14:45	48	44						54	67	23		43	**279**	**1002**
14:45	15:00	32	42						53	68	31		42	**268**	**1063**
15:00	15:15	43	45						64	62	35		35	**284**	**1077**
15:15	15:30	40	50						67	40	24		34	**255**	**1086**
15:30	15:45	19	37						55	55	45		39	**250**	**1057**
15:45	16:00	49	55						54	79	42		17	**296**	**1085**
16:00	16:15	59	69						63	65	33		25	**314**	**1115**
16:15	16:30	39	41						62	58	32		26	**258**	**1118**
16:30	16:45	75	80						71	31	44		36	**337**	**1205**
16:45	17:00	96	70						60	35	37		32	**330**	**1239**
17:00	17:15	122	115						62	41	82		22	**444**	**1369**
17:15	17:30	75	72						42	45	37		20	**291**	**1402**
17:30	17:45	25	22						29	40	54		9	**179**	**1244**
17:45	18:00	41	26						26	22	80		11	**206**	**1120**
18:00	18:15													**0**	**676**
18:15	18:30													**0**	**385**
18:30	18:45													**0**	**206**
18:45	19:00													**0**	**0**
TOTAL		2210	2572	0	0	0	0	0	2411	1670	1654	0	1658		
EST. 24 HR															

TRAFFIC COUNT - ALL VEHICLES

INTERSECTION: **PW Botha Boulevard//14**
PERIOD: **12 Hours**
DATE: **29 May 19**

SITE 10

Total Traffic														Hourly Totals
TIME		Traffic Movements												
Start	End	1	2	3	4	5	6	7	8	9	10	11	12	Total	
06:00	06:15	13		48	21	112						62	9	**265**	
06:15	06:30	3		16	17	147						72	8	**263**	
06:30	06:45	15		33	68	201						85	6	**408**	
06:45	07:00	11		30	78	183						123	16	**441**	**1377**
07:00	07:15	14		61	69	245						184	16	**589**	**1701**
07:15	07:30	17		53	81	330						182	25	**688**	**2126**
07:30	07:45	39		82	60	219						146	37	**583**	**2301**
07:45	08:00	14		16	39	182						129	36	**416**	**2276**
08:00	08:15	27		63	21	183						115	20	**429**	**2116**
08:15	08:30	21		37	28	101						96	22	**305**	**1733**
08:30	08:45	22		40	19	128						111	17	**337**	**1487**
08:45	09:00	21		31	22	128						86	21	**309**	**1380**
09:00	09:15	22		47	27	134						90	19	**339**	**1290**
09:15	09:30	37		47	22	119						100	25	**350**	**1335**
09:30	09:45	21		22	26	114						76	23	**282**	**1280**
09:45	10:00	23		45	27	94						97	23	**309**	**1280**
10:00	10:15	30		40	30	95						75	18	**288**	**1229**
10:15	10:30	29		44	23	124						108	24	**352**	**1231**
10:30	10:45	24		27	22	116						78	24	**291**	**1240**
10:45	11:00	19		36	19	104						84	31	**293**	**1224**
11:00	11:15	23		27	22	122						74	16	**284**	**1220**
11:15	11:30	16		18	17	83						78	13	**225**	**1093**
11:30	11:45	32		45	27	90						94	12	**300**	**1102**
11:45	12:00	26		29	13	100						64	9	**241**	**1050**
12:00	12:15	29		47	8	104						80	9	**277**	**1043**
12:15	12:30	18		41	3	73						64	21	**220**	**1038**
12:30	12:45	22		35	25	112						110	19	**323**	**1061**
12:45	13:00	27		43	16	103						54	30	**273**	**1093**
13:00	13:15	24		50	24	98						93	17	**306**	**1122**
13:15	13:30	23		53	24	118						86	29	**333**	**1235**
13:30	13:45	25		31	17	103						84	15	**275**	**1187**
13:45	14:00	23		46	23	126						124	24	**366**	**1280**
14:00	14:15	26		41	34	96						87	29	**313**	**1287**
14:15	14:30	18		50	35	124						120	14	**361**	**1315**
14:30	14:45	24		34	22	153						112	19	**364**	**1404**
14:45	15:00	27		42	27	127						140	33	**396**	**1434**
15:00	15:15	20		66	22	133						129	22	**392**	**1513**
15:15	15:30	24		46	16	140						140	24	**390**	**1542**
15:30	15:45	17		58	25	123						133	15	**371**	**1549**
15:45	16:00	22		59	25	140						146	22	**414**	**1567**
16:00	16:15	18		62	20	132						174	18	**424**	**1599**
16:15	16:30	21		57	30	133						169	13	**423**	**1632**
16:30	16:45	17		62	31	140						210	29	**489**	**1750**
16:45	17:00	26		75	28	140						185	28	**482**	**1818**
17:00	17:15	17		73	34	127						207	26	**484**	**1878**
17:15	17:30	15		90	36	159						197	14	**511**	**1966**
17:30	17:45	19		90	28	134						200	12	**483**	**1960**
17:45	18:00	21		69	35	114						110	14	**363**	**1841**
18:00	18:15													**0**	**1357**
18:15	18:30													**0**	**846**
18:30	18:45													**0**	**363**
18:45	19:00													**0**	**0**
TOTAL		1042	0	2257	1386	6406	0	0	0	0	0	5563	966		
EST. 24 HR															

APPENDIX C: NETWORK PEAK HOUR VOLUMES

Hourly totals		EXISTING PEAK HOUR TRAFFIC VOLUMES											
		Site	Site	Site	Site	Site	Site	Site	Site	Site	Site		
Start	End	01	02	03	04	05	06	07	08	09	10	sum	PH
06:00	06:15												
06:15	06:30												
06:30	06:45												
06:45	07:00	1536	390	607	100	342	230	408	28	600	1377	5618	06:00 - 07:00
07:00	07:15	1975	672	699	299	565	435	809	288	836	1701	8279	06:15 - 07:15
07:15	07:30	2397	947	817	526	825	678	1067	575	1011	2126	10969	06:30 - 07:30
07:30	07:45	2773	1088	835	878	864	967	1295	846	1140	2301	12987	06:45 - 07:45
07:45	08:00	2787	1199	959	976	812	1011	1357	1089	1171	2276	13637	07:00 - 08:00
08:00	08:15	2824	1204	970	878	751	1039	1247	1149	1129	2116	13307	07:15 - 08:15
08:15	08:30	2588	1097	969	825	727	1018	1273	1048	1034	1733	12312	07:30 - 08:30
08:30	08:45	2247	1075	1035	685	796	945	1246	955	925	1487	11396	07:45 - 08:45
08:45	09:00	2104	979	915	668	826	846	1088	826	790	1380	10422	08:00 - 09:00
09:00	09:15	2047	882	910	739	876	840	1009	672	749	1290	10014	08:15 - 09:15
09:15	09:30	2037	796	911	749	855	771	890	641	703	1335	9688	08:30 - 09:30
09:30	09:45	2011	765	861	715	839	767	921	640	704	1280	9503	08:45 - 09:45
09:45	10:00	1979	810	852	692	802	788	930	653	684	1280	9470	09:00 - 10:00
10:00	10:15	1930	816	839	680	758	725	954	611	641	1229	9183	09:15 - 10:15
10:15	10:30	1855	834	775	661	732	774	964	566	642	1231	9034	09:30 - 10:30
10:30	10:45	1727	806	737	652	718	770	937	529	589	1240	8705	09:45 - 10:45
10:45	11:00	1700	748	743	636	718	759	932	506	590	1224	8556	10:00 - 11:00
11:00	11:15	1719	724	733	622	724	802	896	507	609	1220	8556	10:15 - 11:15
11:15	11:30	1735	706	737	597	700	789	882	535	583	1093	8357	10:30 - 11:30
11:30	11:45	1819	704	742	606	709	756	902	522	618	1102	8480	10:45 - 11:45
11:45	12:00	1880	728	750	603	729	773	931	498	622	1050	8564	11:00 - 12:00
12:00	12:15	1832	738	741	639	753	774	948	539	616	1043	8623	11:15 - 12:15
12:15	12:30	1819	769	762	693	777	773	968	532	629	1038	8760	11:30 - 12:30
12:30	12:45	1890	768	757	662	773	761	928	538	600	1061	8738	11:45 - 12:45
12:45	13:00	1942	751	790	709	796	722	1011	608	619	1093	9041	12:00 - 13:00
13:00	13:15	2101	815	821	706	779	696	1028	631	626	1122	9325	12:15 - 13:15
13:15	13:30	2223	766	791	681	762	683	1084	675	669	1235	9569	12:30 - 13:30
13:30	13:45	2203	764	835	631	746	692	1090	679	691	1187	9518	12:45 - 13:45
13:45	14:00	2227	717	767	583	666	688	1011	621	634	1280	9194	13:00 - 14:00
14:00	14:15	2150	673	738	550	692	630	1013	637	625	1287	8995	13:15 - 14:15
14:15	14:30	2088	714	715	529	675	651	979	677	639	1315	8982	13:30 - 14:30
14:30	14:45	2018	772	679	587	669	685	1002	665	632	1404	9113	13:45 - 14:45
14:45	15:00	1882	806	660	609	697	726	1063	701	697	1434	9275	14:00 - 15:00
15:00	15:15	1868	792	667	623	665	766	1077	654	706	1513	9331	14:15 - 15:15
15:15	15:30	1827	773	704	668	700	751	1086	587	633	1542	9271	14:30 - 15:30
15:30	15:45	1907	777	748	666	716	739	1057	633	649	1549	9441	14:45 - 15:45
15:45	16:00	1981	772	813	711	755	700	1085	619	646	1567	9649	15:00 - 16:00
16:00	16:15	2037	836	881	719	762	725	1115	629	649	1599	9952	15:15 - 16:15
16:15	16:30	2252	887	939	705	747	715	1118	667	712	1632	10374	15:30 - 16:30
16:30	16:45	2578	862	993	748	747	771	1205	729	797	1750	11180	15:45 - 16:45
16:45	17:00	2893	945	1153	767	818	810	1239	868	860	1818	12171	16:00 - 17:00
17:00	17:15	3011	980	1207	820	888	964	1369	973	1004	1878	13094	16:15 - 17:15
17:15	17:30	2835	906	1149	804	912	1034	1402	1051	1020	1966	13079	16:30 - 17:30
17:30	17:45	2423	870	1032	789	869	975	1244	1043	947	1960	12152	16:45 - 17:45
17:45	18:00	1958	727	805	702	677	907	1120	973	812	1841	10522	17:00 - 18:00
18:00	18:15	1284	440	492	481	425	564	676	700	498	1357	6917	17:15 - 18:15
18:15	18:30	809	288	310	318	226	323	385	436	296	846	4237	17:30 - 18:30
18:30	18:45	358	109	148	137	78	132	206	201	107	363	1839	17:45 - 18:45
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	18:00 - 19:00



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Planning. Do not scale from it but refer to figured dimensions. All measurements must be checked and confirmed by a Professional Land Surveyor. Any discrepencies should please be reported to DELPlan immediately.

Die kopiereg van hierdie tekening behoort aan DELplan Stads- & Streekbeplanning. Moenie daarvan afskaal nie, maar verwys na afstande soos aangedui. Alle afmetings moet deur 'n Professionele Landmeter nagegaan en bevestig word. Enige teenstrydighede moet asseblief dadelik aan DELplan rapporteer word.

PROJECT: **PROJEK:**

Proposed development for George Municipality

DESCRIPTION: **BESKRYWING:**

Portion of Erf 464, (Metro Grounds), George

TITLE: **TITEL:**

Layout plan

NOTES: **NOTAS:**

PROPOSED ZONINGS

ZONING	ERVEN	ERF NO.	AREA (m²)	%
Residential Zone	661	VARIOUS	97,398.69	61.01
Transport Zone II	3	649; 650; 651	55,748.79	34.92
Public Open Space	6	VARIOUS	4,854.05	2.92
Business	1	216	545.58	0.34
Crecha	2	148;424	871.41	0.55
Authority	1	466	406.32	0.26
TOTAL	674		159,626.84	100.00

A3 Scale: N 1:2500

DELplan
URBAN & REGIONAL PLANNING
Tel: 044 873 4566 - Email: planning@delplan.co.za
www.delplan.co.za

DESIGNED DESIGNED: HP/DV

DRAWN: GETEKEN: MV 630/EDN/GeorgeProjects/Metro/SKF/MetroLayout V6

DATE: DATUM: NOVEMBER 2013

PLAN NO: PLAN NR: ANNEXURE 2

SMEC
Local People. Global Experience.

ERF 464 (METRO GROUNDS) -- LAYOUT OF PROPOSED DEVELOPMENT

PROJECT NO : C1461

DATE: OCTOBER 2013

FIGURE 2

Annexure 13:
CIVIL ENGINEERING REPORT

GEORGE MUNICIPALITY

T/ING/015/2022 MULTI-DISCIPLINARY PROFESSIONAL SERVICES: NEW PERMANENT GIPTN (GO-GEORGE) BUS DEPOT

STAGE 2 (PHASE 1) – FEASIBILITY INVESTIGATION OF PROPOSED NEW GO-GEORGE BUS DEPOT

Civil Engineering Services Report

REF NO. 11262000/R02023

2025-09-15

Compiled for:

Mr. J. Koegelenberg
Director: Civil Engineering Services
George Municipality
PO Box 19
George
6530

Compiled by:

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V3 CONSULTING ENGINEERS



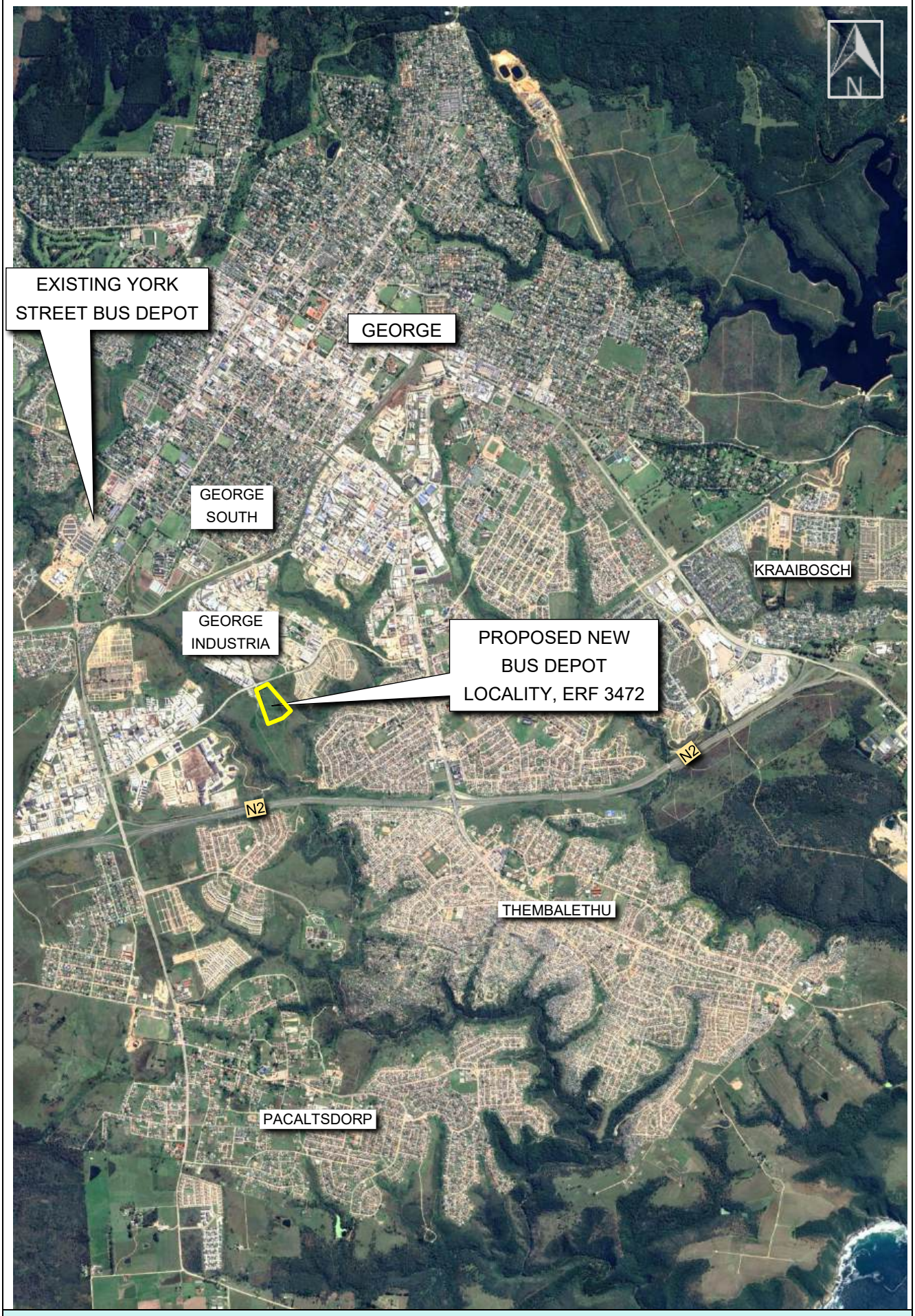
CLIENT	George Municipality
CONTRACT NO:	T/ING/015/2022 MULTI-DISCIPLINARY PROFESSIONAL SERVICES: NEW PERMANENT GIPTN (GO-GEORGE) BUS DEPOT
PROJECT DESCRIPTION	PHASE 1– PROPOSED NEW GO-GEORGE BUS DEPOT
REPORT DESCRIPTION	CIVIL ENGINEERING SERVICES REPORT

Revision	0			
Date	2025/09/15			
Author(s)	D.K. Jacobs			
Approver				

Approver's signature

Date 2025-09-15

Disclaimer:
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LOCALITY PLAN

NEW GO-GEORGE BUS DEPOT:
CIVIL ENGINEERING SERVICES REPORT

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BACKGROUND

A significant component of the George Mobility Strategy is the establishment of an Integrated Public Transport Network (GIPTN) as provided for in the National Land Transport Act 5 of 2009 (NLTA) and which is based on the notion of transforming the existing informal minibus taxi and bus operations into a regulated formal public transport operation utilising the same local operators. Such a structured public transport operation requires that buses be parked at a secure depot when not in use.

The purpose of the consulting professional's appointment is to provide professional services to assist the George Municipality in planning, designing, and monitoring the construction of a permanent bus depot for the Go George bus service.

The permanent depot is to replace the temporary depot currently in use, situated on Erf 3472 in York Street, George. It will provide administrative, parking (bus and private vehicles), fuelling, cleaning/washing, maintenance, and storage facilities for up to say 200 diesel-powered (standard) 12-meter buses, with alternate parking layouts that will accommodate a mixed fleet comprising mini-, midi-, standard and single articulated buses, which could be diesel or electricity powered. The depot is seen as being ‘medium’ in scale.

The George Municipality will own the depot, and a single Vehicle Operating Company (VOC) will operate from the facility.

The design approach for the depot is based on research of best practices and reports both locally and internationally, and in particular, the Bus Depot Design Guidelines document of SGA Architects (India).

1. INTRODUCTION

1.1 Introduction and Approach

V3 Consulting Engineers (Pty)Ltd have been appointed by George Municipality on contract T/ING/015/2022 Multi-Disciplinary Professional Services: New Permanent GIPTN (Go-George) Bus Depot. Following the Stage 1 – Phase 1 feasibility investigation of the existing bus depot facility on York Street, a Phase 2 civil engineering services report was conducted for the proposed new Go-George Bus Depot to assess its impact on civil engineering services.

As part of this report, all civil engineering infrastructure services around the site were evaluated. The scope of this assessment is limited to information available through the municipal GIS system, visual inspections and based on subsequent services report on the proposed 'Metro Grounds' development neighbouring the proposed new bus depot site. During the site visit, the existing services and their findings were recorded, as well as the visible and accessible services.

At the time of this report, the proposed bus depot layout (refer to Figure 1 below and **ANNEXURE A** attached) would aim to accommodate about 220 parked buses and to provide parking for facility staff, bus drivers and visitors. The layout is to house various structures, administrative, workshop and storage buildings as well as on-site refuelling and fuel storage facilities.

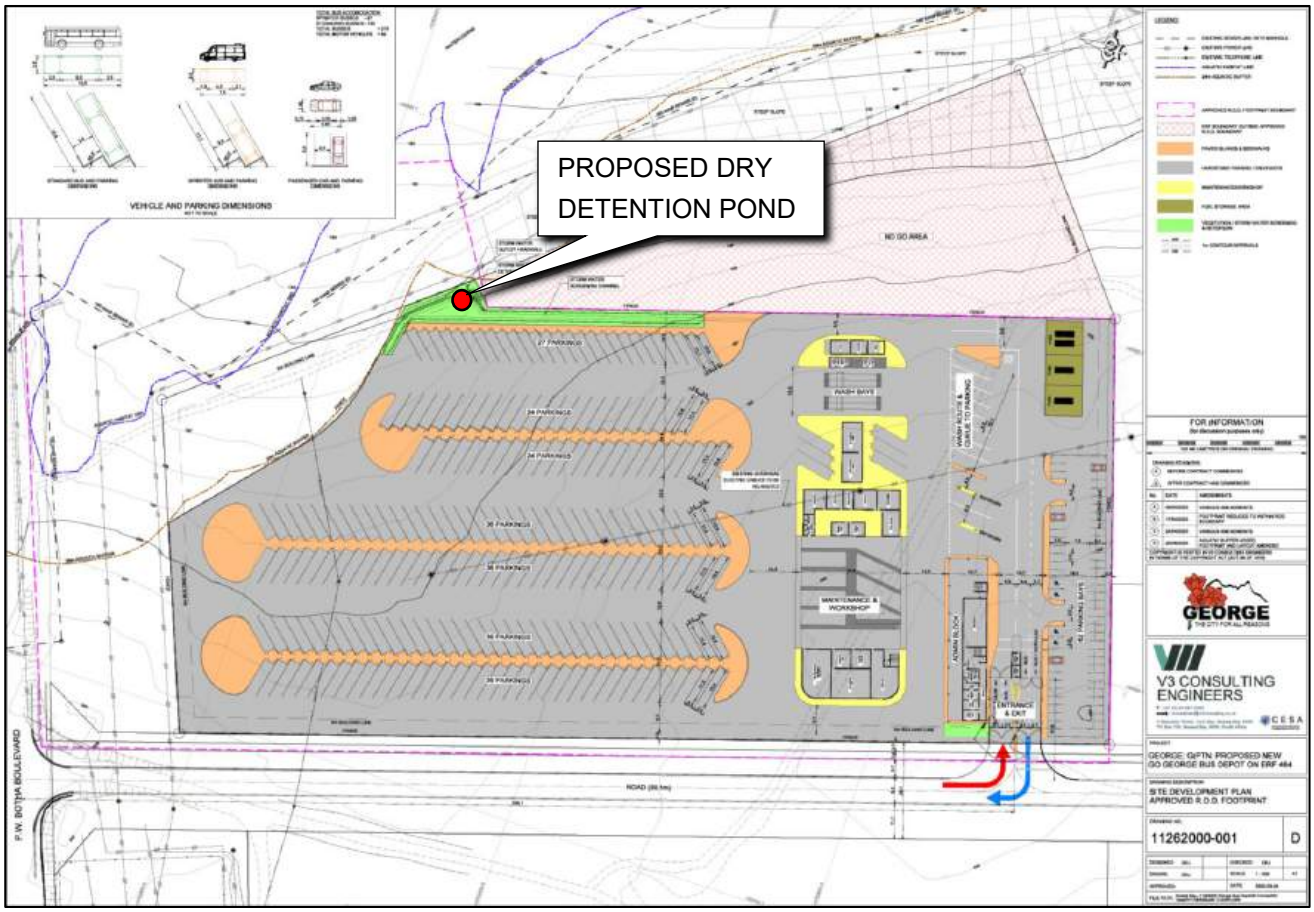


Figure 1: Proposed New Bus Depot Layout on erf 464, George.

1.2 Site Location

The site is situated in George, on ERF 464 in the George Industria area, along P.W. Botha Boulevard, with approximate central coordinates of S33.988677°, E22.458916°.

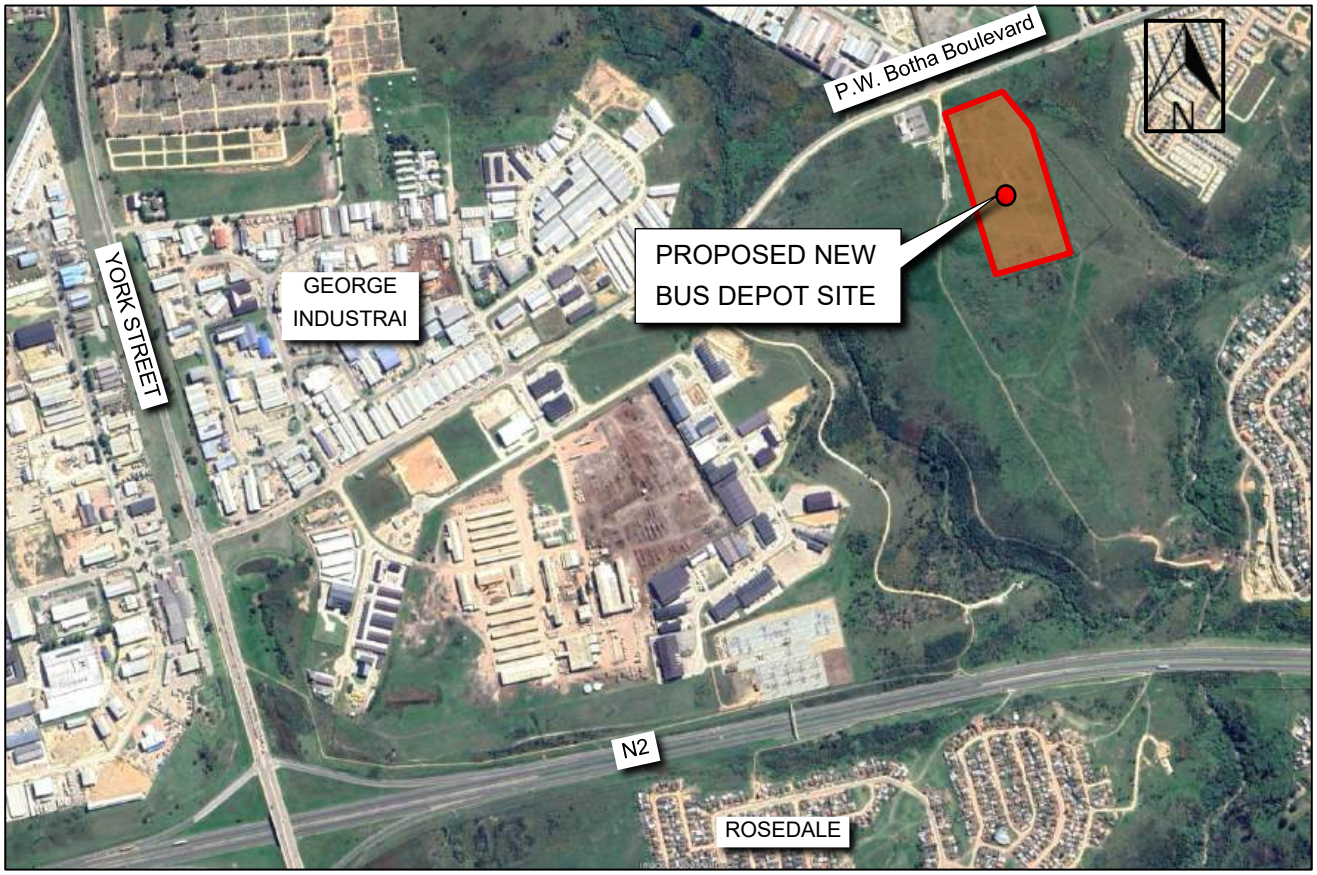


Figure 2: Site Locality

1.3 Nature of the site and Geology

The elevation of the property ranges varies between contours 190m and 205m. The natural overland drainage is to the East of the site to a nearby non-perennial river (water course) located about 70 meters to the East of the site boundary.

The contour survey reveals notable variations in slope across different parts of the proposed site. The site mainly features a crest that determines the drainage direction towards the East.

The topography mainly varies between Gently Sloping and Strong Sloping, with about 17% of the site steeper than 1:7.5, or 13%. Such steep areas pose an increased risk for runoff concentration, erosion, and surface instability if unmanaged, and have been excluded from the proposed development footprint.

A geotechnical investigation was conducted by Outeniqua Geotechnical Services for George Municipality as part of the proposed “Metro Ground Development” project, extracts of which are included in **ANNEXURE B** *(Full copy available on request).*

The following conclusion was extracted from the geotechnical report:
“The site was generally considered suitable for the proposed urban development, but some challenging geotechnical constraints were encountered, requiring special engineering solutions to mitigate excessive movements in structures. Some preliminary recommendations were provided for consideration by the designers, but all information should be verified on site and further investigations may be required.”

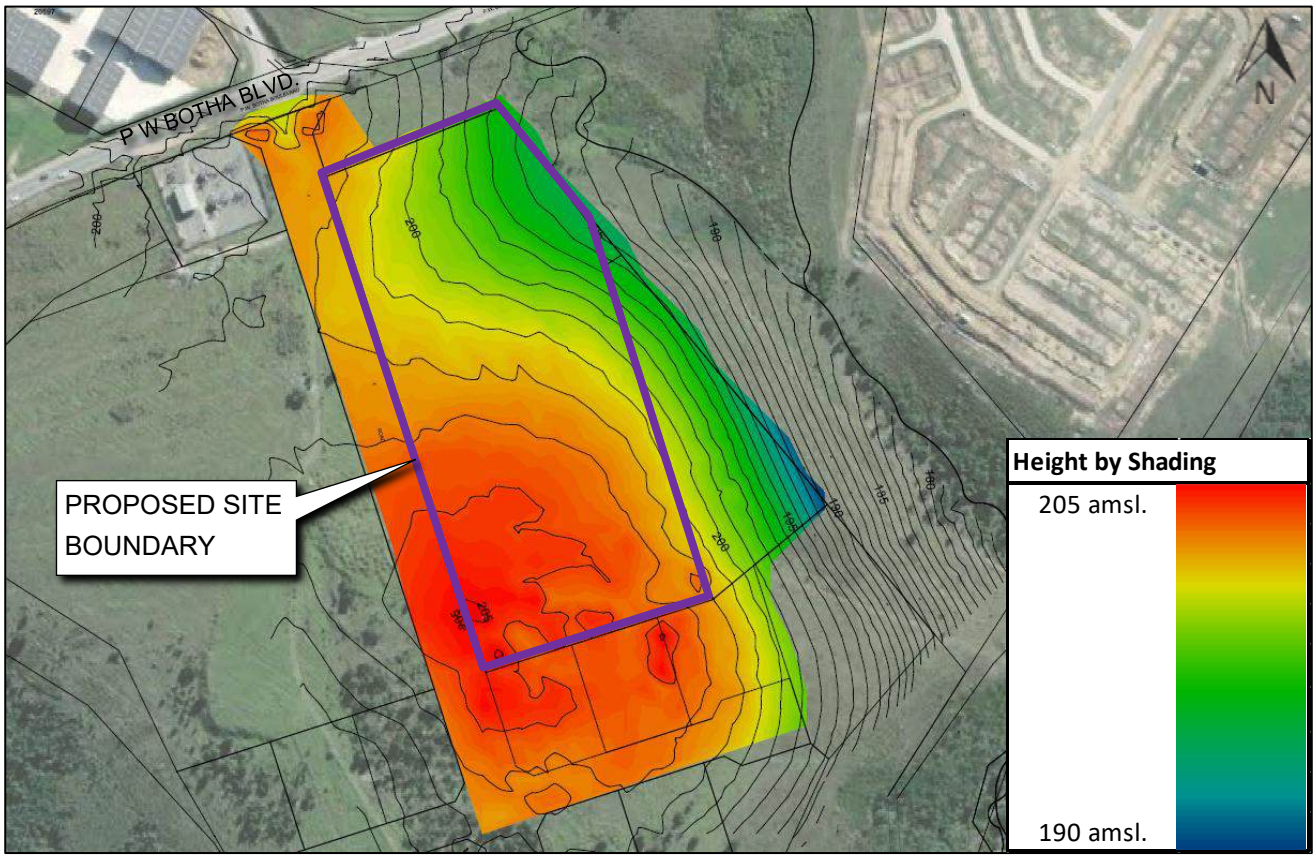
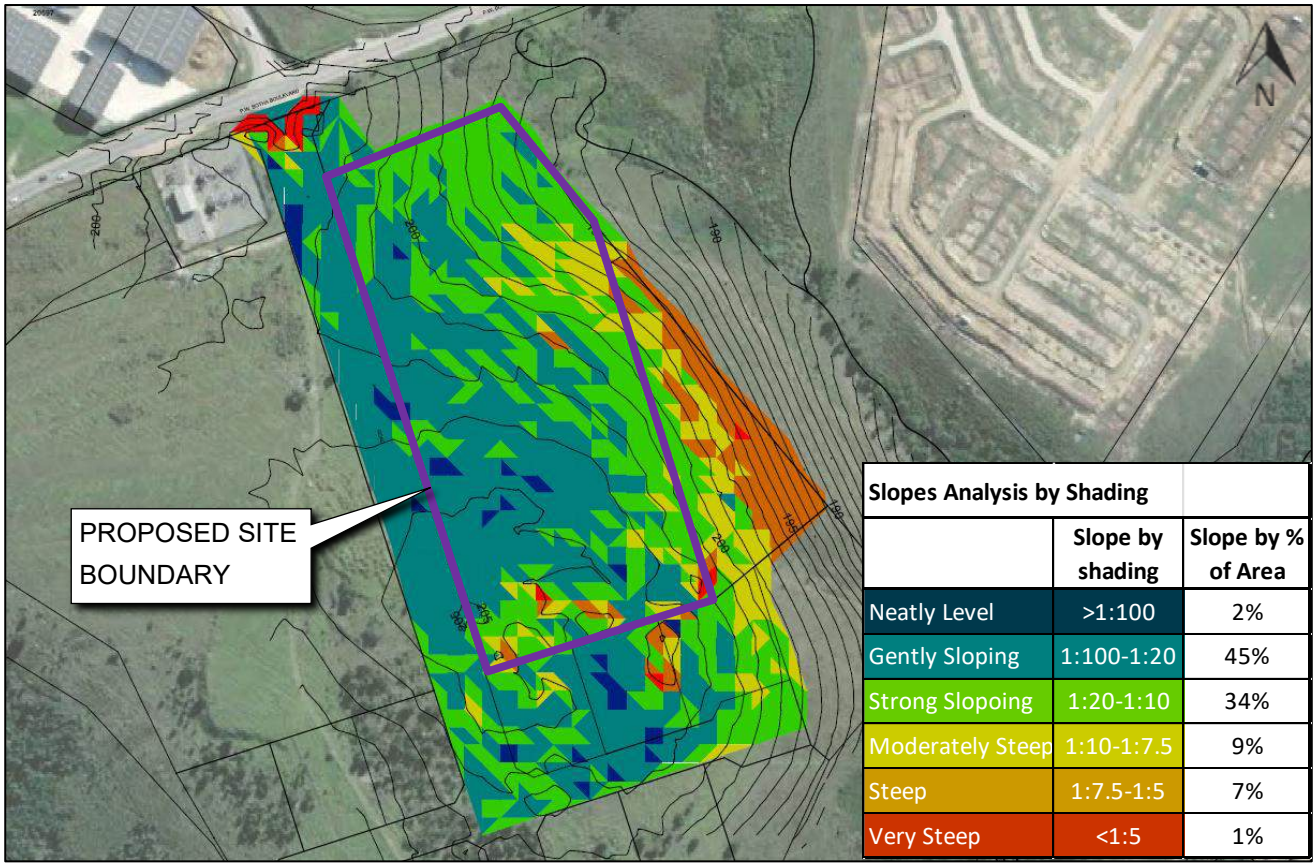


Figure 3: Topography and hight shading of the site.



Slopes Analysis by Shading		
	Slope by shading	Slope by % of Area
Neatly Level	>1:100	2%
Gently Sloping	1:100-1:20	45%
Strong Slopoing	1:20-1:10	34%
Moderately Steep	1:10-1:7.5	9%
Steep	1:7.5-1:5	7%
Very Steep	<1:5	1%

Figure 4: Site Slope analysis by shading.

2. DESIGN AND CONSTRUCTION STANDARDS

The minimum standards proposed for the civil services and pertaining infrastructure will comply with the "Guidelines for Human Settlements, Planning and Design" as compiled under patronage of the Department of Housing by CSIR Building & Construction Technology (also known as the "Red Book") as well as any specific requirements prescribed by the Local Authority, Mossel Bay Municipality.

The relevant code of standards (i.e. SANS 1200, etc.) should be made applicable to material and construction standards.

3. PROPOSED CIVIL SERVICES CONSIDERATIONS

3.1 Water Network and Connection

The existing water network capacity near the site is subject to confirmation by George Municipality. GLS Consulting have previously been appointed by George Municipality to develop a Water Master Plan for the area and to assess how various developments might impact it. If necessary, this and other reports will be reviewed by GLS to determine if the current water system can support the proposed development.

An existing 250mm Ø water distribution line is positioned to the North of the proposed development along P.W. Botha Boulevard. No formal water distribution line exists to the site per se, and would therefore have to be constructed up to the proposed bus depot site inside the future proposed 'Metro Ground Development' road reserve.

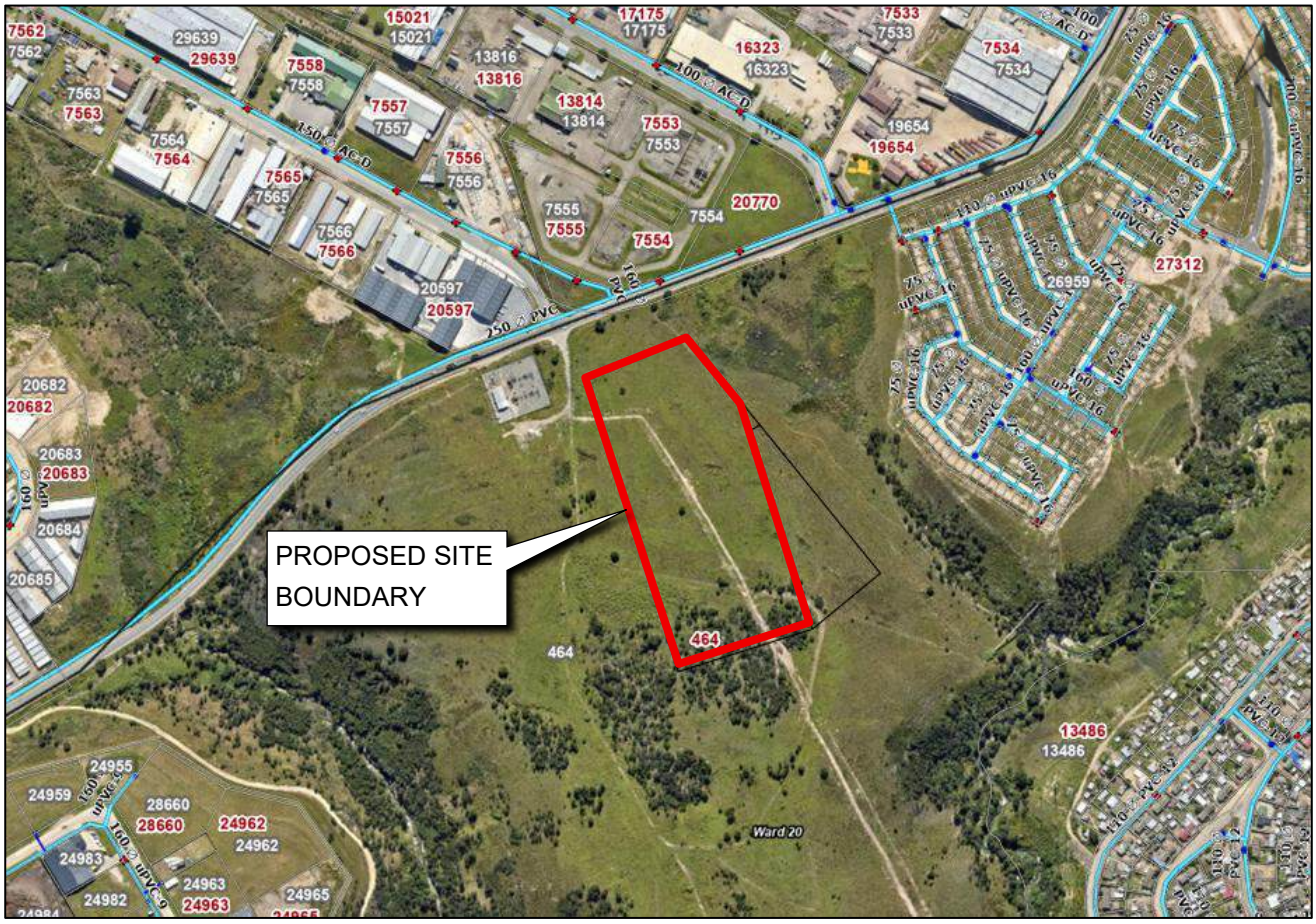


Figure 5: Existing Water Network (George GIS)

The water use for the proposed bus depot development will be split into two categories. Water used for Domestic, Business, Industrial use and water for washing buses. Domestic / Business and Industrial water will be consumed and used, and effluent will be discarded into the site's domestic foul sewer reticulation. It is envisioned that the water used in the bus washing facility will be recycled for reuse.

It is estimated that a single bus washing facility can service an average of 40 buses per day (assuming 8 hours of washing operations daily) (Minnesota Department, 2012). However, it is recommended to have one wash bay for every 70–75 buses accommodated at a depot. Such an arrangement will be sufficient for maintenance activities limited to 8 hours a day, provided buses are washed every other day[(1)]. This practice is often preferred to conserve water and energy. Buses are routed through gantry washers on alternate days, while on other days they are cleaned manually both externally and internally.

ANNEXURE C shows the existing water distribution network, obtained from George Municipality GIS.

3.1.1 Water use

It is proposed that the depot employ specialised personnel for bus washing. These personnel drive the bus from the parking lot to the wash bay, wash it, and clean it. Mechanised washing per bus takes an average of 3 to 6 minutes and uses about 150 litres of water (Zhongda Industrial Group Co. Ltd., 2016).

Domestic water is estimated to be used at 90l/p/d for the facility, catering for an estimated 50 on site staff and 220 bus drivers.

3.1.2 Wash Bays

Automatic and manual cleaning of the buses will happen periodically as required by the Vehicle Operating Company (VOC). From past practice, it is envisaged that each bus will be deep cleaned at least twice per week, but guidelines suggest each bus be externally rinsed every day and deep cleaned at least every second day. The wash bay area will be covered with a roof structure to prevent uncontrolled rainwater from entering the water reuse system, and the storm water will be managed around the area. The washing bays will have at least one (1) automated mechanical washing bay with additional manual washing bays as required. Washing bays will be provided with gantries, which will extend over the entire length of the wash area.

a)  *b)* 

c)  *d)* 

Figures 6 *a - d*: Typical wash bay area (*Cape Town, MyCity, Spine Road IRT Depot)*

The water supply will be a combination of harvested water and municipal water, where feasible. Rainwater will also be harvested from the adjacent Buildings' roof area for reuse.

Water used in the wash process itself will be recycled at a target of 80%. The wash water will be collected in the floor grids and will drain to the high-volume oil separator tanks. These tanks will be above ground and will consist out of about 3 x 10,000 litre tanks. The oil will be removed from the tanks on a monthly basis, and the silt will have to be removed from the tanks on an annual basis. From the oil traps, the water will be pumped through a sand filter to the holding tank. Flocculating agents and disinfectant will be added to the holding tank, and the water in the tank will be aerated with compressed air from a nearby compressed air installation. From the holding tank, the water will be pumped back to the wash bay for reuse.

With the above in mind, the estimated average annual daily demand (AADD) for the site is calculated as follows;

$AADD_{domestic}$ = (50 + 220) x 90 *ℓ/p/d*
= 24.3 *kℓ/d or* ÷ (24 x 60 x 60) ……(1)
= 0.281 *ℓ/s*

Wash bays required is calculated as = 220 busses ÷ 2[(1)]
= 1.57 wash bays or rounded to two (2) wash bays required.

$AADD_{washing}$ = 220 busses ÷ 2[(1)] x 150 *ℓ/b/d x 0.8*
= 3.3 *kℓ/d or* ÷ (8 x 60 x 60) ……(2)
= 0.115 *ℓ/s* (8-hour shift)

$AADD_{total}$ = 24.3 *kℓ/d* + 3.3 *kℓ/d* ……(1 + 2)
= 27.6 *kℓ/d or* ……(3)
= 0.319 *ℓ/s*

According to Table J.9 from the 'Red Book', peak flows in Light Industrial areas recommend a peak factor of x1.7 per day and x3.3 per hour.

Thus; Peak hour demand = 0.319 *ℓ/s* x 3.3
= 1.053 *ℓ/s* ……(4)

Since the existing bus depot on York Street would be replaced with the new proposed depot, the impact of the new depot on the existing water supply of George would be minimal.

3.1.3 Fire Flow

Due to the Industrial and business-type activities that will occur on the site, it is classified as “Moderate Risk 1” in accordance with Table J.17 from the ‘Red Book’. The water mains should be designed to meet the parameters outlined in Table J.17 (refer to Figure 7) below. Fire flow for a duration of 4 hours must be sustained for a site classified as “Moderate Risk 1”.

Table J.17: Design criteria for the provision of fire flow				
Risk classification	Total fire flow (L/s)	Minimum flow at one hydrant (L/s)	Minimum pressure at fire node (m)	Minimum pressure at rest of system (m)
High risk: CBD and high-risk industrial	100	25	15	5
Moderate risk 1: Industrial, business, high-rise flats ≥ four storeys	50	25	15	5
Moderate risk 2: Cluster & low-income housing, high rise flats ≤ three storeys	25	25	10	5
Low risk: Single residential housing	15	15	10	5

Figure 7: Table J.17: Design criteria for the provision of fire flow.

3.1.4 Fire duration

According to Table J.17, a site classified as “Moderate Risk 1”, the design must sustain fire flow for a duration of 4 hours.

Table J.18: Duration of design fire flow	
Fire-risk category	Duration of design fire flow (h)
High risk	6
Moderate risk 1	4
Moderate risk 2	2
Low risk	1

Figure 8: Table J.18: Duration of design fire flow.

At the time of his report, the Metro Ground Development had not yet been formalised, and due to the absence of a water main to the proposed depot erf, it is proposed that a new connection be made to the existing 250mm Ø water main along P.W. Boulevard, and a new 250mm Ø Class 12 water main of approximately 430m in length will be laid within the proposed road reserve of the future Metro Ground Development.

3.2 Sewage

Sewage removal will be accommodated by means of a gravity sewer network from the buildings, which will gravitate to the nearest existing sewer network.

ANNEXURE D shows the surrounding existing sewer distribution network, obtained from the George Municipality GIS.



Figure 9: Existing Sewer Network (George GIS)

3.2.1 Internal Sewage Removal

An internal gravity sewer system will collect the sewage from the buildings and deliver it into the existing 150mm Ø sewer pipeline located to the east of the proposed depot.

Average daily wastewater flows are estimated at 70 ℓ/p/d for the facility, catering for an estimated 50 on-site staff and 220 bus drivers. The hydraulic loading of the sewage system is estimated at 18.9 kℓ/day.

With the above in mind, the estimated average dry weather flow (ADWF) for the site is calculated as follows;

ADWF = (50 + 220) x 70 *ℓ/p/d*
= 18.9 *kℓ/d or* ÷ (24 x 60 x 60) ……(5)
= 0.219 *ℓ/s*

According to Table K.8 from the 'Red Book', peak daily dry weather flow (PDDWF) in Light Industrial areas recommends a peak factor of between x2.5 and x4.0

Thus; PDDWF = 0.219 *ℓ/s* x 4.0
= 0.876 *ℓ/s* ……(6)

The percentage allowance criteria for stormwater ingress, as recommended for instantaneous peak wet weather flow (IPWWF), is 30% for the internal sewer reticulation.

Thus; IPWWF = 0.*876 ℓ/s* x 1.3
= 1.134 *ℓ/s* ……(7)

The proposed internal gravity sewer network will consist of 160 mm UPVC sewer pipes and 1,0 m diameter concrete sewer manholes, which will be connected to the existing gravity sewer pipeline east of the development. Pipe trench widths required by SANS 1200 are 760 mm wide. Trench depths will be determined by the topography, but are expected to be between 1,0 to 3,0 m deep.

3.2.2 Bulk Sewage Removal

The existing sewer network capacity near the site is subject to confirmation by George Municipality. GLS Consulting have previously been appointed by George Municipality to develop a Sewer Master Plan for the area and to assess how various developments might impact it. If necessary, this and other reports will be reviewed by GLS to determine if the current sewer system can support the proposed development.

An existing 150mm Ø sewer line is positioned to the East of the proposed development. No formal sewer connection exists to the site per se, and would therefore have to be constructed from the existing sewer line up to the proposed bus depot.

3.3 Storm Water Management

The site is currently a Greenfields site, undeveloped and does not have a formal stormwater management plan. There is no existing stormwater infrastructure adjacent to the proposed development. Upstream runoff and stormwater from the site will need to be managed via overland flow and underground piping. The eastern part of the terrain features a steep slope that becomes steeper as it approaches a natural drainage line to the west.

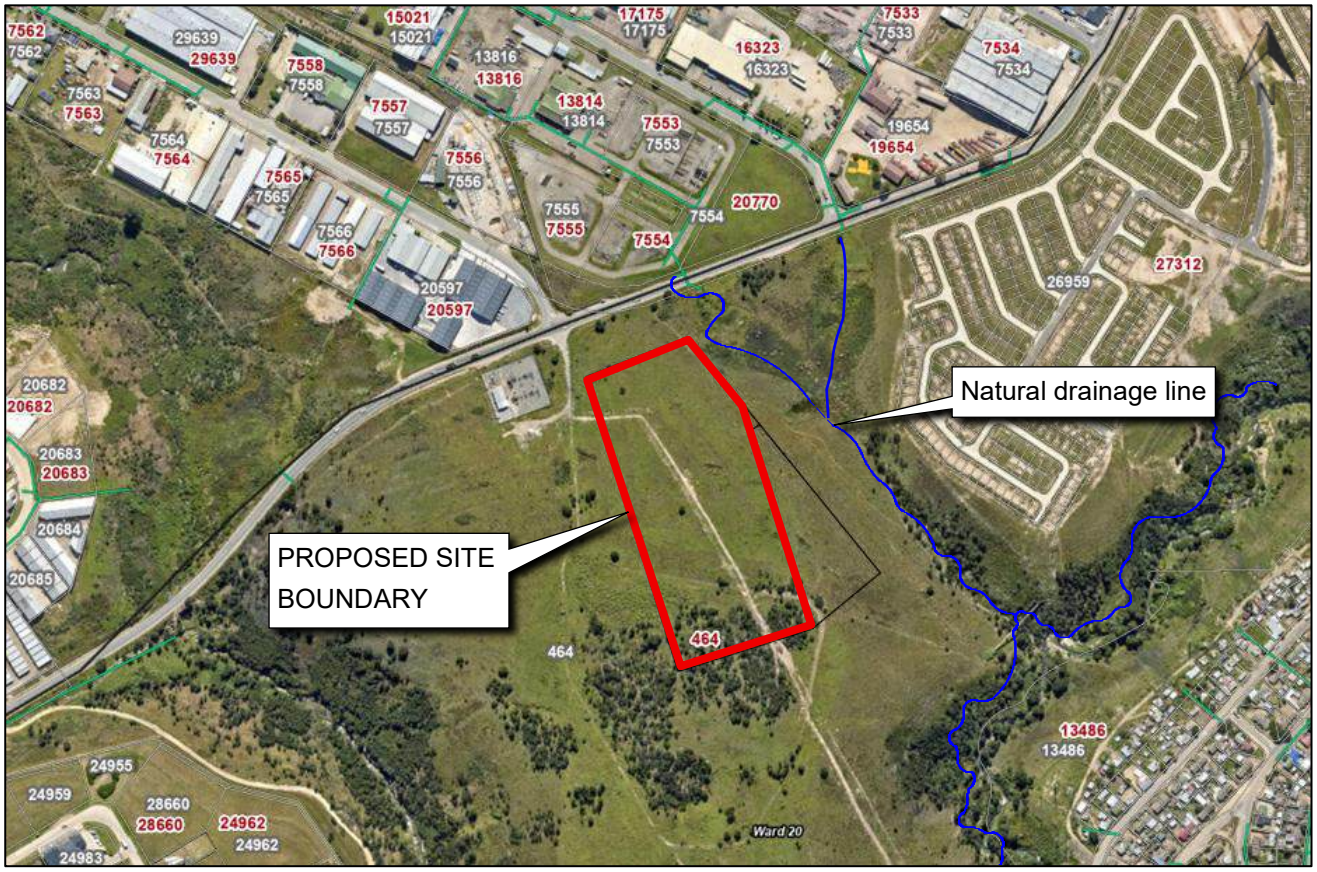


Figure 10: Existing Storm Water Network (George GIS)

Incorporating sustainable drainage systems (SuDS) is recommended, as they emulate natural flow patterns and help prevent urban pollutants from reaching watercourses. The stormwater management plan envisions the collection and treatment of stormwater by introducing a Dry Detention Pond (Basin) at the lowest point of the layout before it is released into the environment. Refer to the proposed layout plan in Figure 1 above and **ANNEXURE E.**

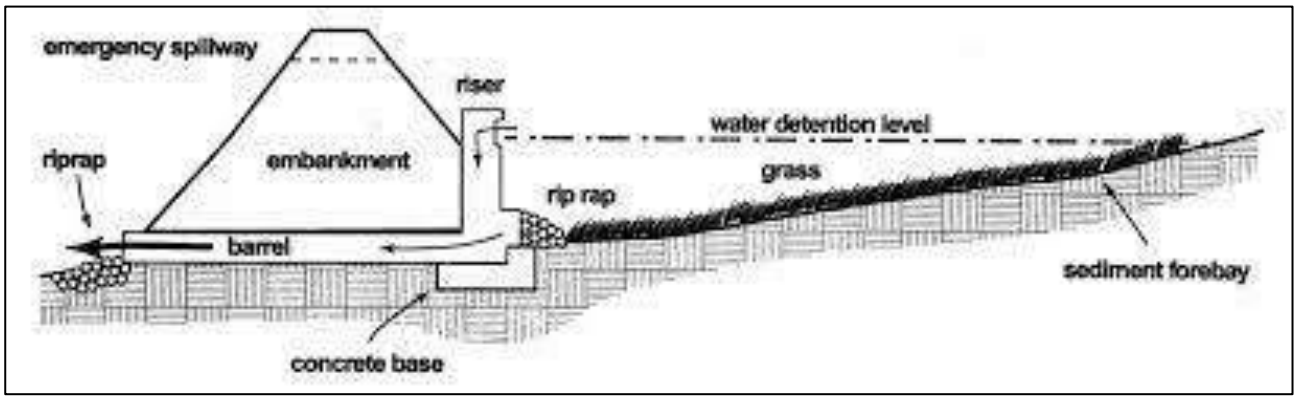


Figure 11: Typical cross-section detail of a Dry Detention Pond (Basin).

The internal system will follow the site's topography, directing runoff to designated bio-retention and detention ponds, with outflows controlled by energy-dissipating outlets at specified locations. If necessary, native vegetation will be planted in accordance with guidelines for stormwater wetlands to reduce erosion and enhance the wetlands for stormwater attenuation.



Figure 12: Typical SuDS techniques to reduce runoff velocities and improve runoff quality.

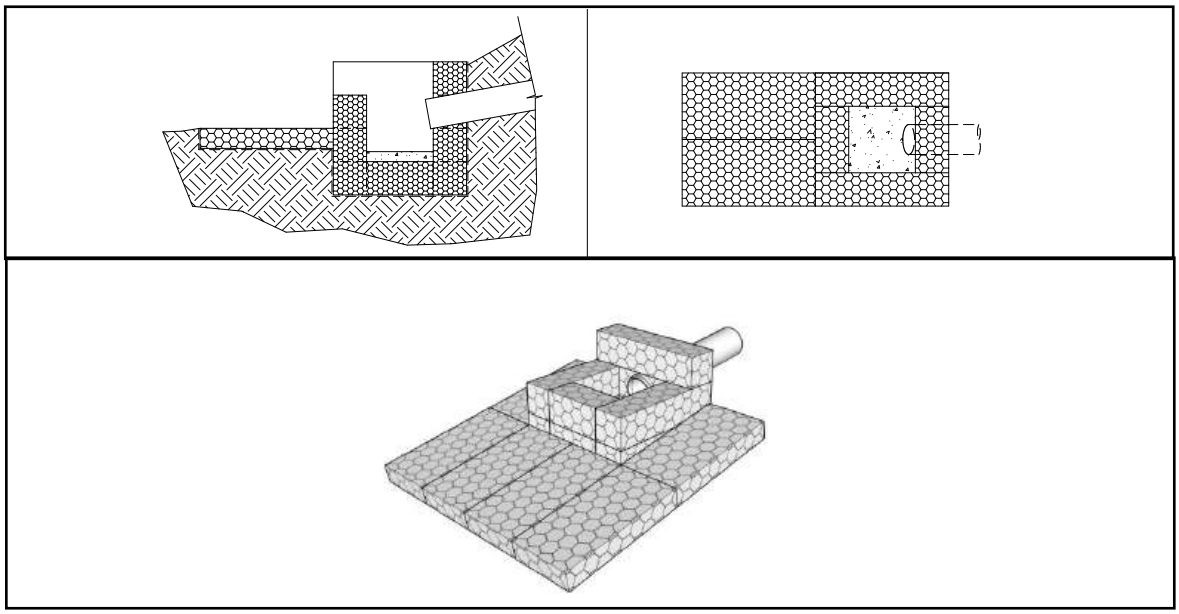


Figure 13: Typical Energy Dissipating Structure / Gabion Outlet Structure at storm water pipe outlet.

Rainwater from roofs, where feasible, should be stored in collection tanks to minimise runoff onto hard surfaces.

Additionally, cut-off grid drains and underground pipes will help manage runoff and reduce sheet flow across paved areas. Due to the site's vehicle operations and the findings of the geotechnical soil study, it is recommended that permeable paving to manage surface water not be implemented, as the underlying substrate has clay properties and the groundwater may become contaminated in the event of fuel and oil spills, as well as the constant ingress of roadway pollutants and silt particles.

ANNEXURE F shows the surrounding existing water distribution network, obtained from George Municipality GIS.

4. EXISTING TRAFFIC STUDIES

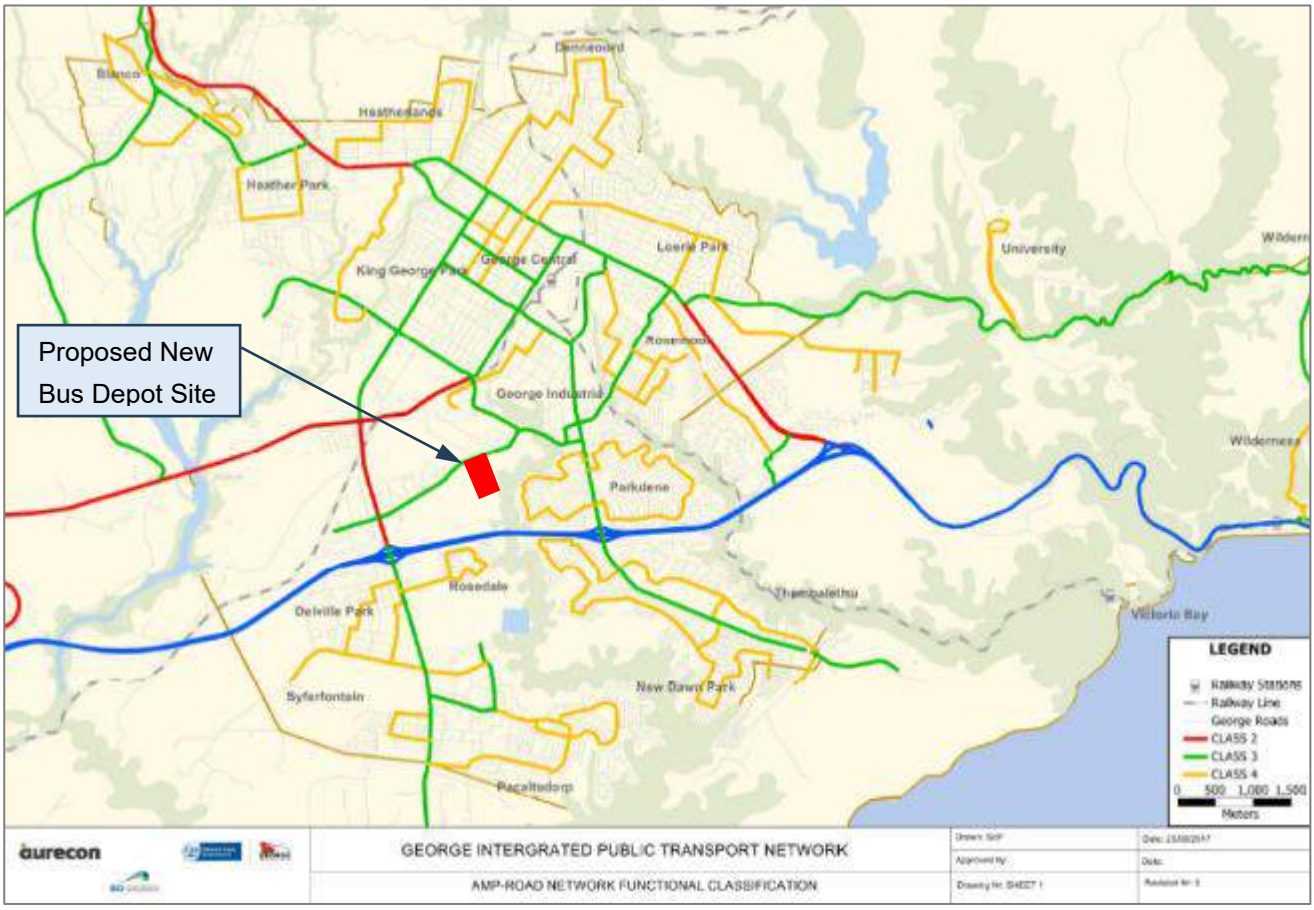


Figure 14: Modified Road Network Functional Classification.

Various Traffic Impact Assessments (TIA) have been prepared for multiple developments along P.W. Botha Blvd. Two TIA's pertaining to the 'Proposed Permanent Bus Depot on Portion of Erf 464, George' have been conducted, viz.

a. ZUTARI, Report Nr 1001403-0000-REP-KR-00001-1, Revision 1, Draft 2 dated 2021/09/14
b. URBAN ENGINEERING, Report Number 22-158_TIA, Proposed Metro Grounds Industrial Development, Revision 1, dated 2025/02/24.

Both these reports should be read interchangeably and in their entirety, not just parts thereof. These reports can be made available on request to the report holders, with the authors' acknowledgement.

Based on the study, analysis, and findings of the Zutari report, as well as the recommendations of the Urban Engineering reports, it is proposed that the P.W. Botha Blvd/Ossie Urban intersection be converted into a signalised intersection. This recommendation is based on the generalisation that a signalised intersection allows for a synchronised corridor and helps address the lack of sufficient sight lines and shoulder sight distances at the proposed intersection.

At the time of the 'Metro Ground' TIA (ref. *b.* above), the proposed access road reserve that would serve the proposed Metro Ground and Bus Depot developments was recommended to have a road reserve width of 30m.

The road classification is to be a 'Class 4a Commercial (major) collector street'.

It was recommended that the intersections from P.W. Botha Blvd to the Bus Depot and the first intersecting road junction be spaced 270m and 146m respectively, as shown in Figure 15 below.

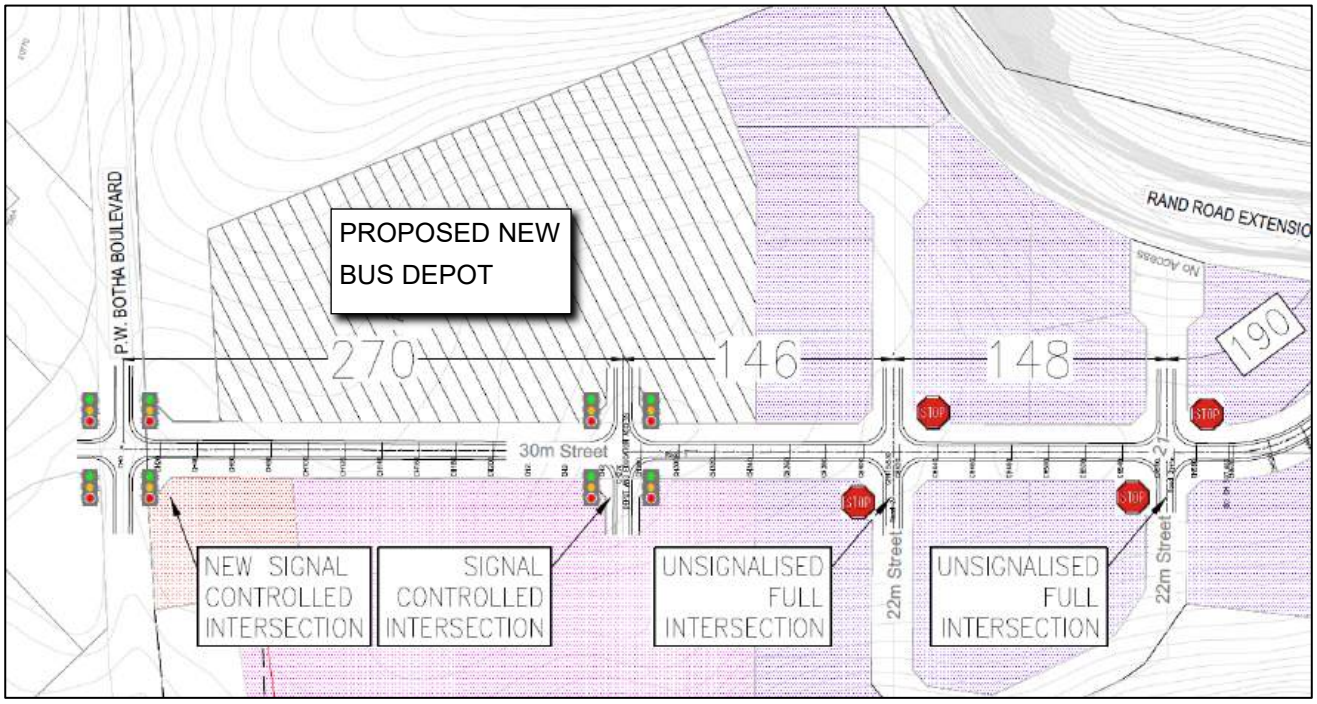


Figure 15: Proposed Intersection configuration by Urban Engineering Report Number 22-158_TIA.

5. REFUSE REMOVAL

Refuge removal will be carried out by the George Municipality as part of its normal services.

No hazardous waste will be collected by George Municipality. Any hazardous waste must be stored on-site and collected and disposed of by a specialist hazardous waste removal company that is suitably qualified to handle and dispose of such waste.

6. CONSTRUCTION STAGE

To prevent soil erosion and potential pollution resulting from stormwater runoff during the construction stage, erosion control methods such as silt fences and silt traps, energy breakers in the form of logs secured with stakes, brush packing and mulching, and reseeding need to be considered. It will be the responsibility of the Developer to ensure that Contractors apply erosion control measures throughout the period of risk and that the works are protected from damage that may be caused through runoff of rainwater.



Figure 16: Examples of soil erosion protection by means of silt fences and logs.

Detail of such requirements as well as demarcating of sensitive areas, environmental awareness training of construction personnel, possible restrictions of certain construction activities, accommodation of staff on site, access to the site, site camps and offices, fire prevention measures, dust control, noise control and alien vegetation clearing, etc. will be addressed in the Construction Environmental Management Plant after the project has been approved.

The Developer will appoint a Health and Safety Agent to ensure that all activities about the project are conducted in a manner that complies with the Occupational Health and Safety Act, as well as the Construction Regulations.

7. SUMMARY AND RECOMMENDATIONS

7.1 Summary

The George Municipality, through its Integrated Public Transport Network (GIPTN) initiative, requires a permanent bus depot to replace the temporary facility currently located on York Street. The proposed depot will be situated on Erf 464, George Industria, and is intended to accommodate up to 220 buses, provide parking for staff and visitors, and host administration, maintenance, fuelling, and cleaning facilities.

A civil engineering services investigation was conducted to assess the feasibility of providing water, sewer, stormwater, and transportation infrastructure to the depot. The study was based on municipal GIS records, site inspections, and reference to neighbouring developments (Metro Grounds).

7.2 Key Findings and Recommendations:

7.2.1 Geotechnical & Site Conditions

The site is generally suitable for development, although some areas are steep (greater than 13%) and are excluded from the development footprint. Geotechnical constraints, such as potential differential settlement, will require special design solutions.

7.2.2 Water Supply

A new 250mm water main (approximately 430 m) is required to connect the depot to the existing 250mm Ø supply line in P.W. Botha Boulevard. Domestic and washing demand is estimated at 27.6 kℓ/day, with peak hourly demand at 1.05 ℓ/s. Two bus wash bays are recommended, with recycling systems to reduce potable water demand. Fire flow requirements (Moderate Risk 1 classification) must be incorporated in the design.

7.2.3 Sewer Infrastructure

Wastewater flows are estimated at 18.9 kℓ/day, discharging to the existing 150mm Ø sewer line east of the site. The internal sewer network will comprise UPVC gravity lines and concrete manholes.

7.2.4 Stormwater Management

No existing stormwater network serves the site. A Sustainable Drainage System (SuDS) approach is recommended, including a dry detention basin at the lowest point, bioretention features, infiltration measures, and rainwater harvesting. Energy-dissipating outlet structures are proposed to prevent erosion. Permeable paving is not recommended due to the potential for pollutant ingress and the presence of a clayey soil substrate.

7.2.5 Traffic & Access

Existing traffic impact assessments recommend that the P.W. Botha Boulevard/Ossie Urban intersection be upgraded to a signalised intersection. A new Class 4a collector road (30m reserve) will provide access to the depot, with intersection spacing as per TIA studies.

7.2.6 Construction Stage

Erosion and stormwater pollution risks during construction must be mitigated through the use of silt fences, traps, brush packing, mulching, and environmental controls. Compliance with the Occupational Health and Safety Act and the Construction Regulations will be mandatory.

--- End Report ---

ANNEXURE A

PROPOSED NEW BUS DEPOT LAYOUT

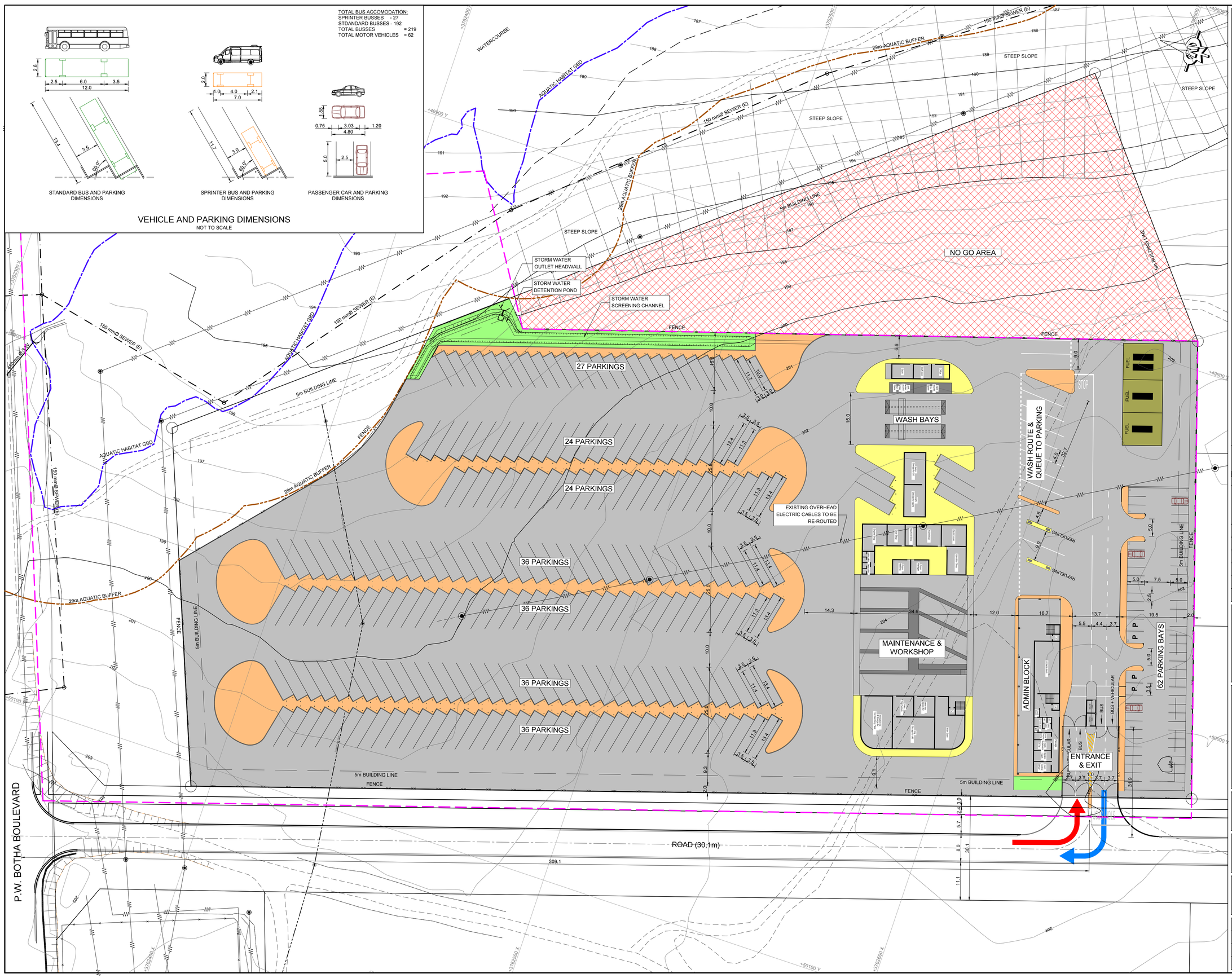
TOTAL BUS ACCOMODATION:
SPRINTER BUSSES - 27
STDANDARD BUSSES - 192
TOTAL BUSSES = 219
TOTAL MOTOR VEHICLES = 62

STANDARD BUS AND PARKING DIMENSIONS

SPRINTER BUS AND PARKING DIMENSIONS

PASSENGER CAR AND PARKING DIMENSIONS

VEHICLE AND PARKING DIMENSIONS
NOT TO SCALE



LEGEND:

- EXISTING SEWER LINE WITH MANHOLE
- EXISTING POWER LINE
- EXISTING TELEPHONE LINE
- AQUATIC HABITAT LINE
- 29m AQUATIC BUFFER
- APPROVED R.O.D. FOOTPRINT BOUNDARY
- ERF BOUNDARY OUTSIDE APPROVED R.O.D. BOUNDARY
- PAVED ISLANDS & SIDEWALKS
- HARDSTAND PARKING / DRIVEWAYS
- MAINTENANCE/WORKSHOP
- FUEL STORAGE AREA
- VEGETATION / STORM WATER SCREENING & DETENTION
- 1m CONTOUR INTERVALS

FOR INFORMATION
(for discussion purposes only)

100 MILLIMETRES ON ORIGINAL DRAWING

DRAWING REVISIONS:

- (A) BEFORE CONTRACT COMMENCES
- (A) AFTER CONTRACT HAS COMMENCED

No.	DATE	AMENDMENTS
A	08/04/2025	VARIOUS AMENDMENTS
B	17/04/2025	FOOTPRINT REDUCED TO WITHIN ROD BOUNDARY
C	24/04/2025	VARIOUS AMENDMENTS
D	20/08/2025	AQUATIC BUFFER ADDED, FOOTPRINT AND LAYOUT AMENDED

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PROJECT
GEORGE: GIPTN: PROPOSED NEW GO GEORGE BUS DEPOT ON ERF 464

DRAWING DESCRIPTION
SITE DEVELOPMENT PLAN
APPROVED R.O.D. FOOTPRINT

DRAWING NO.
11262000-001 D

DESIGNED: DKJ		CHECKED: DKJ	
DRAWN: DKJ		SCALE: 1 : 500	A1
APPROVED:		DATE: 2025-09-04	
FILE PATH: Mossel Bay - 11262000 George Bus Depot\02 Concept\04 Draw01\11262000-001 D (SDP).DR5			

ANNEXURE B

GEOTECHNICAL INVESTIGATION
DATED 2022/09/22 PREPARED BY
OUTENIQUA GEOTECHNICAL SERVICES

GEOTECHNICAL REPORT

PROPOSED MIXED-USE DEVELOPMENT (INDUSTRIAL, BUSINESS & RESIDENTIAL) ON A PORTION OF REMAINDER OF ERF 464, GEORGE (METROGROUNDS)

22 September 2022 (Rev 0)



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Ref No: 2021\Clinkscales Maughan-Brown\Rem Erf 464 (Metrogrounds), George\Report\Geotechnical Report 22.9.2022 Rev0

Report review history:

Revision No	Date	Prepared by:	Reviewed by:	Approved by:
0	22.9.2022	I Paton Pr Sci Nat Pr Tech Eng	S Ngema BSc Geol	I Paton Pr Sci Nat Pr Tech Eng
				

Authors qualifications and affiliations:

Iain Paton has post graduate degrees in Geology and Geotechnical Engineering and over 25 years' experience in the mining, energy and construction industries. Iain Paton is a registered geotechnical professional with the Engineering Council of South Africa (ECSA) and the South African Council for Natural and Scientific Professions (SACNSP). Iain Paton is a member of the Geotechnical Division of the South African Institute of Civil Engineering (SAICE), South African Institute of Engineering and Environmental Geologists (SAIEG), the and the Institute of Municipal Engineering of South Africa (IMESA).

Declaration of independence:

The authors of this report are independent professional consultant with no vested interest in the project, other than remuneration for work associated with the compilation of this report.

General limitations:

1. The investigation has been conducted in accordance with generally accepted engineering practice, and the opinions and conclusions expressed in the report are made in good faith based on the information at hand at the time of the investigation.
2. The contents of this report are valid as of the date of preparation. However, changes in the condition of the site can occur over time as a result or either natural processes or human activity. In addition, advancements in the practice of geotechnical engineering and changes in applicable practice codes may affect the validity of this report. Consequently, this report should not be relied upon after an eclipsed period of one year without a review by this firm for verification of validity. This warranty is in lieu of all other warranties, either expressed or implied.
3. Unless otherwise stated, the investigation did not include any specialist studies, including but not limited to the evaluation or assessment of any potential environmental hazards or groundwater contamination that may be present.
4. The investigation is conducted within the constraints of the budget and time and therefore limited information was available. Although the confidence in the information is reasonably high, some variation in the geotechnical conditions should be expected during and after construction. The nature and extent of variations across the site may not become evident until construction. If variations then become apparent this could affect the proposed project, and it may be necessary to re-evaluate recommendations in this report. Therefore, it is recommended that Outeniqua Geotechnical Services is retained to provide specialist geotechnical engineering services during construction in order to observe compliance with the design concepts, specifications and recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction. Any significant deviation from the expected geotechnical conditions should be brought to the author's attention for further investigation.
5. The assessment and interpretation of the geotechnical information and the design of structures and services and the management of risk is the responsibility of the appointed engineer.

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1. Introduction

1.1 Background information

A new mixed-use development (industrial, business & residential) has been proposed on a portion of Remainder of Erf 464 George in the Western Cape, known as the "Metrogrounds" (see **Figures 1, 2 & 3**).

The site was investigated in order to determine the geology and geotechnical properties of the site for the design of new structures and civil engineering services.

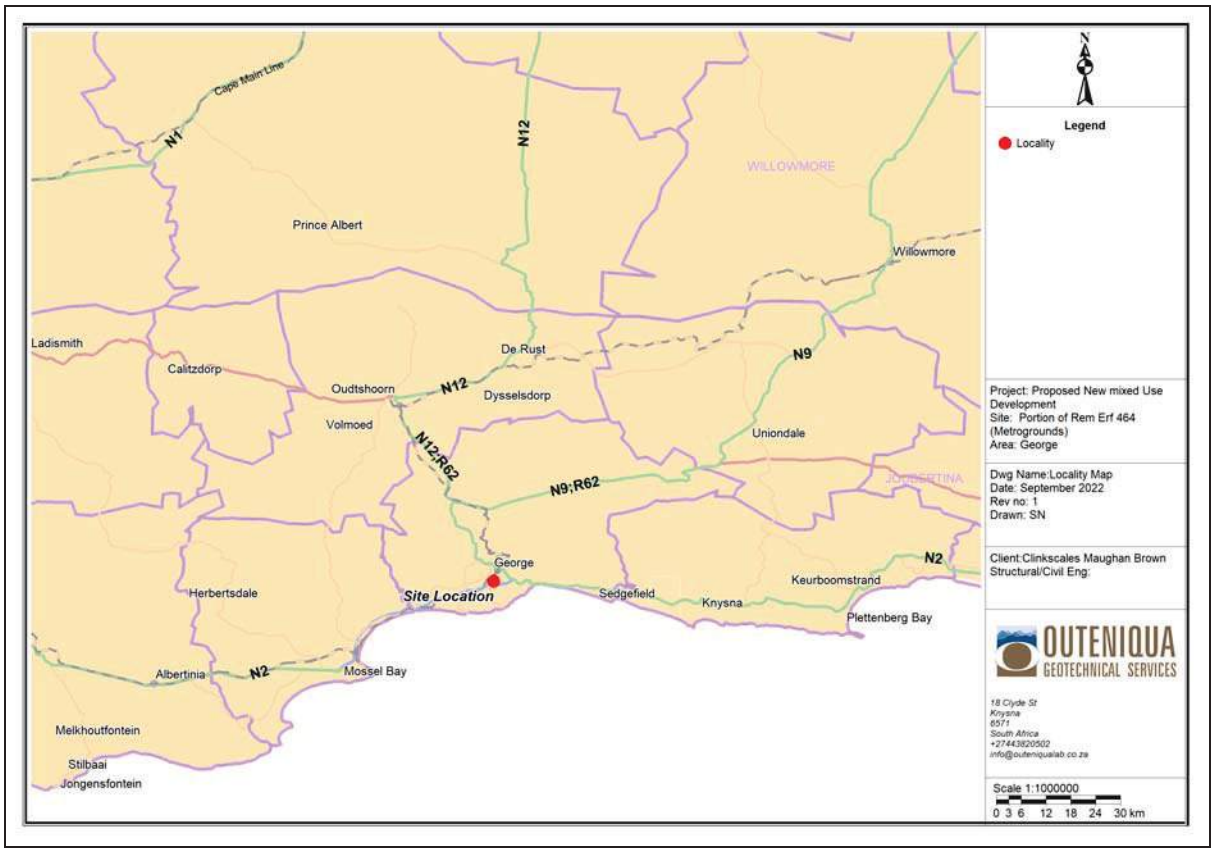


Figure 1: Site locality map

1.2 Scope of work

The scope of work was to conduct a broad-scope geotechnical survey and the following methods were proposed and accepted by the client:

- Review all available geotechnical information on the area.
- Conduct a walk-over survey of the site to assess the terrain, surface processes and apparent geotechnical risks.
- Conduct subsurface investigations to determine soil/rock profile and groundwater conditions, consisting of:
    - 20x test pits, excavated across the site with TLB/backhoe to max depth of 3m or refusal on rock/boulders.
- Log all test pits in accordance with South African standard methods (SAICE Guidelines for Soil and Rock logging in South Africa, 2002).
- Collect soil samples for testing at SANAS-accredited civil engineering laboratory in accordance with South African and/or American Standard methods (SANS or ASTM).

- Conduct insitu tests as per South African and/or American Standard methods (SANS or ASTM).
- Prepare a detailed factual and interpretive report, written by a registered Engineering Geologist/Geotechnical Engineer (SACNASP/ECSA), containing all information from the investigation and including soil classifications and recommendations for the design of foundations for structures and civil services, as required in the scope of works.
- Discuss geotechnical data and recommendations with civil and structural designers as and when required.

1.3 Available information

The following information was available for consultation:

- 1:50 000 & 1:250 000 geological maps of the area, obtained from the Council for Geoscience;
- Topo-cadastral data for the area, obtained from the National Geospatial Institute (NGI).
- Aerial photos of the area, obtained from the NGI and Google Earth.
- Site development plan provided by the town planners.
- In-house geotechnical database.

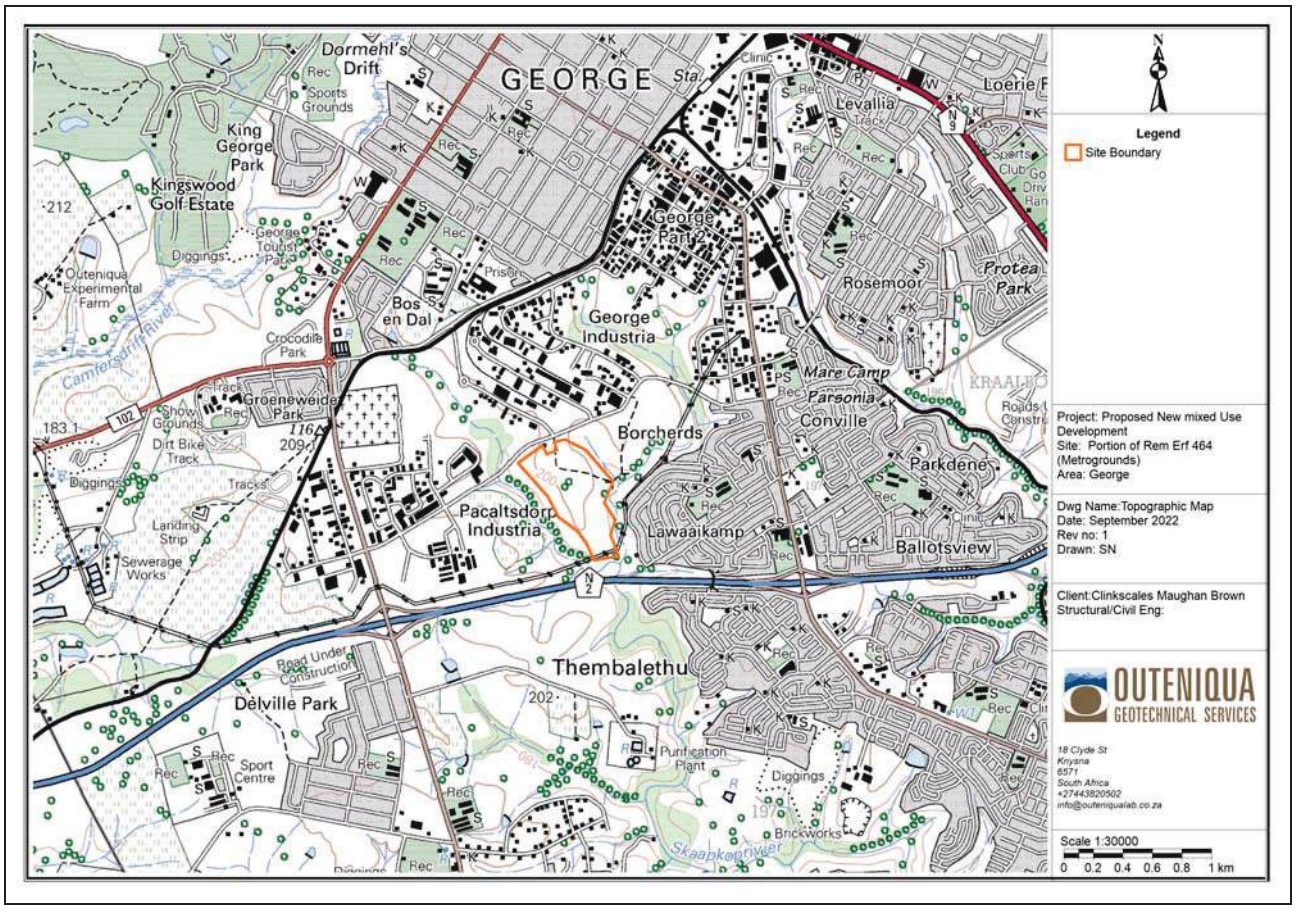


Figure 2: Topographical map of the site

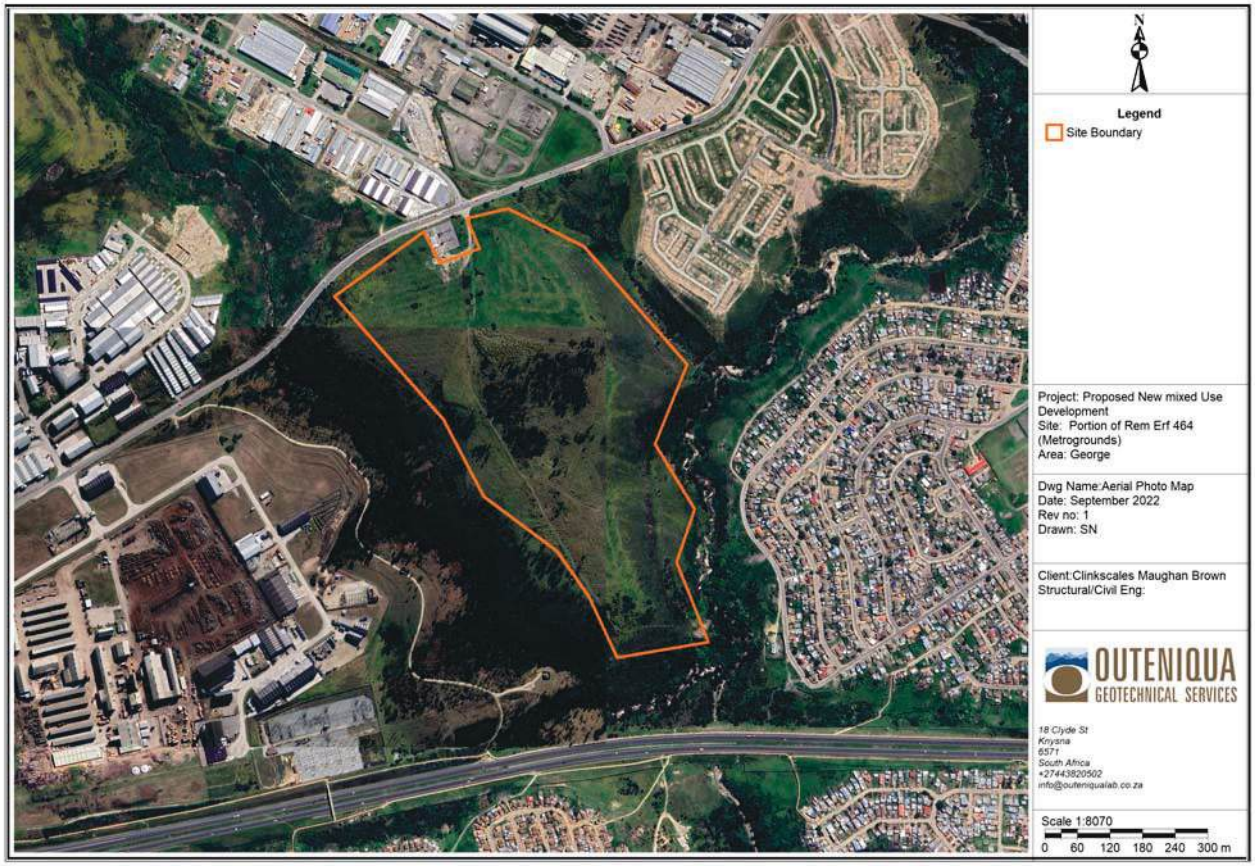


Figure 3: Aerial photo map of the site

2. Site description

The proposed site covered an area of ~31.Ha and was located within the Tamsui Industrial area, to the east of Steinhoff Industrial Park. At time of the investigation, the site was vacant and was used for informal cattle grazing. There was evidence on site (and from aerial photography) of significant disturbance/alteration to the natural ground levels due to historical earthworks, diggings and dumping of fill material. There were also some overhead electrical lines noted crossing the site.

The climate of the region was classified as temperate, with cool winters and warm summers, and most rainfall occurring during the winter months. The Weinert Climatic-N No. for the area was 1-2, indicating a wet climate. Coastal cut-off low pressure systems and associated heavy rains have occurred in spring and autumn months with occasional very heavy rainfall events of 100mm or more in a 24hour period. In the summer months, moist air brought to the coastal region by the Indian Ocean anticyclone has generally been the source of rainfall. Winter rains are derived from the passage of polar cyclonic systems (cold fronts) with a predominant westerly wind along the southern coast. The average monthly minimum winter temperatures was 9°C and average maximum summer temperatures was 25°C.

The topography of the site was generally characterised by a prominent ridge/spur that runs in a southeast direction from the site entrance along PW Botha Boulevard. The ridgeline was bound on the west and east by tributaries of the Schaapkop River. The terrain on site sloped gently along the crest of the ridge, increasing to moderate towards the site boundaries. The vegetation consisted of long grass, small shrubs, medium to large bushes and clumps of large trees, but the vegetation on and around the sites was largely transformed from historical human activity on the site (See **Figures 4-7**). The surface conditions were generally dry at the time of the

investigation but very moist near drainage lines. Access with vehicles onto the site varied from relatively easy along existing tracks (**Figure 6**) to difficult due to dense bush and existing heaps of fill material (**Figure 6-7**).



Figure 4: Typical gentle terrain and grassland vegetation on large parts of the site



Figure 5: Moderate slopes along the eastern side of the site



Figure 6: Jeep track access roads on the site



Figure 7: Heaps of fill encountered on parts of the site

3. Methods of investigation

A walk-over survey of the site was conducted prior to a subsurface investigation. The subsurface investigation consisted of twenty (20) test pits (See **Appendix 1** for a plan of the test positions). The test pits were excavated to a maximum depth of ~3m with a TLB/backhoe. This exercise was conducted in order to investigate the geology and geotechnical nature of the site, including soil types, moisture levels, consistency, etc. The soil profiles and photographs of the test pits were included in **Appendix 2** of this report.

Samples of insitu soils were collected from test pits for Foundation Indicator (grading, Atterberg limits and moisture content), Modified AASHTO maximum dry density, optimum moisture content, CBR and soil chemistry. The tests were conducted at SANAS-accredited civil engineering laboratories in accordance with standard South African test methods. See **Appendix 3** for details.

In situ dynamic cone penetrometer (DCP) tests were conducted at each of the test pit positions. The tests were done in accordance with TMH6 ST6. The probes were driven from GL to a depth of ~2m or refusal. Details of the tests were included in **Appendix 4** of this report.

An analysis of the information was then conducted to determine geotechnical parameters and recommendations were then formulated based on the available data.

4. Results of the site investigation

4.1 Regional geology

The site was indicated on the regional geological maps to be underlain by granite of the Maalgaten Suite of the George pluton (**Figure 8**). The George pluton consists of several granitic bodies that were intruded into older country rocks of the Kaaimans Group of meta-sediments during the Cambrian era (~525 million years ago). Younger meta-sedimentary rocks of the Peninsula Formation (Table Mountain group) were indicated to the north of the George area.

The George pluton has been subjected to intense deformation, similar to that of the older

country rocks of the Kaaimans Formation and typically exhibit strong penetrative planar and linear fabrics (structural features). In some places the granite has been intensely sheared, mainly along its margins. The Kango fault, a large dormant fault system, was mapped to the north of Outdshoorn, but there were no major geological faults in the immediate vicinity of the site and there was a low risk of seismic activity in the area (max peak horizontal ground acceleration 0.05g).

The Maalgaten granite is the most voluminous lithological unit of the George pluton which underlies most of the George area. The granite rock is poorly exposed in the George area and is typically covered by a thick soil overburden including colluvium, alluvium and residual saprolite.

The geology of the George area has been widely considered macro stable for urban development purposes with due consideration given to potential geotechnical constraints on a site-level.

4.2 Local soil and rock types

The test pits undertaken as part of this investigation indicated that the site consisted of areas underlain by natural (insitu) soil and areas underlain by deposits of uncontrolled fill (dumped soil). The natural (insitu) profile generally consisted of one or more horizons of colluvium (transported soil), which were underlain by a pedogenic horizon of ferricrete nodules (chemical deposit), which was underlain by residual granitic soil composed of clayey sand and/or sandy clay, derived from the insitu weathering of the underlying granite. See **Figure 9**.

Visual and tactile observations in test pits indicated that the insitu soil moisture contents were generally moist with localised very moist horizons.

The soil profile for the natural (insitu) soil was broadly defined into the following horizons:

- Moist, light red brown, loose, intact, SILTY FINE SAND, transported, colluvium.
- Slightly moist to moist, dark brown, medium dense, honeycombed/voided, SILTY SANDY ferricrete GRAVEL, pedogenic (not always present).
- Moist, yellow orange & red orange, firm-stiff, shattered, SAND & SILTY CLAY with fine, angular quartz GRAVEL, residual granite.
- Slightly moist to moist, yellow orange & light grey/brown, dense to very dense, intact, CLAYEY & SILTY SAND with fine, angular quartz and feldspar GRAVEL, completely weathered granite (saprolite).

The uncontrolled fill material that was encountered in some test pits consisted of a wide range of materials, but largely dominated by a mixture of soil, rubbish and rubble, which had been dumped on parts of the site over a long period of time. A significantly thick (but apparently localised) deposit was encountered in test pit TP3. See **Figure 10**.

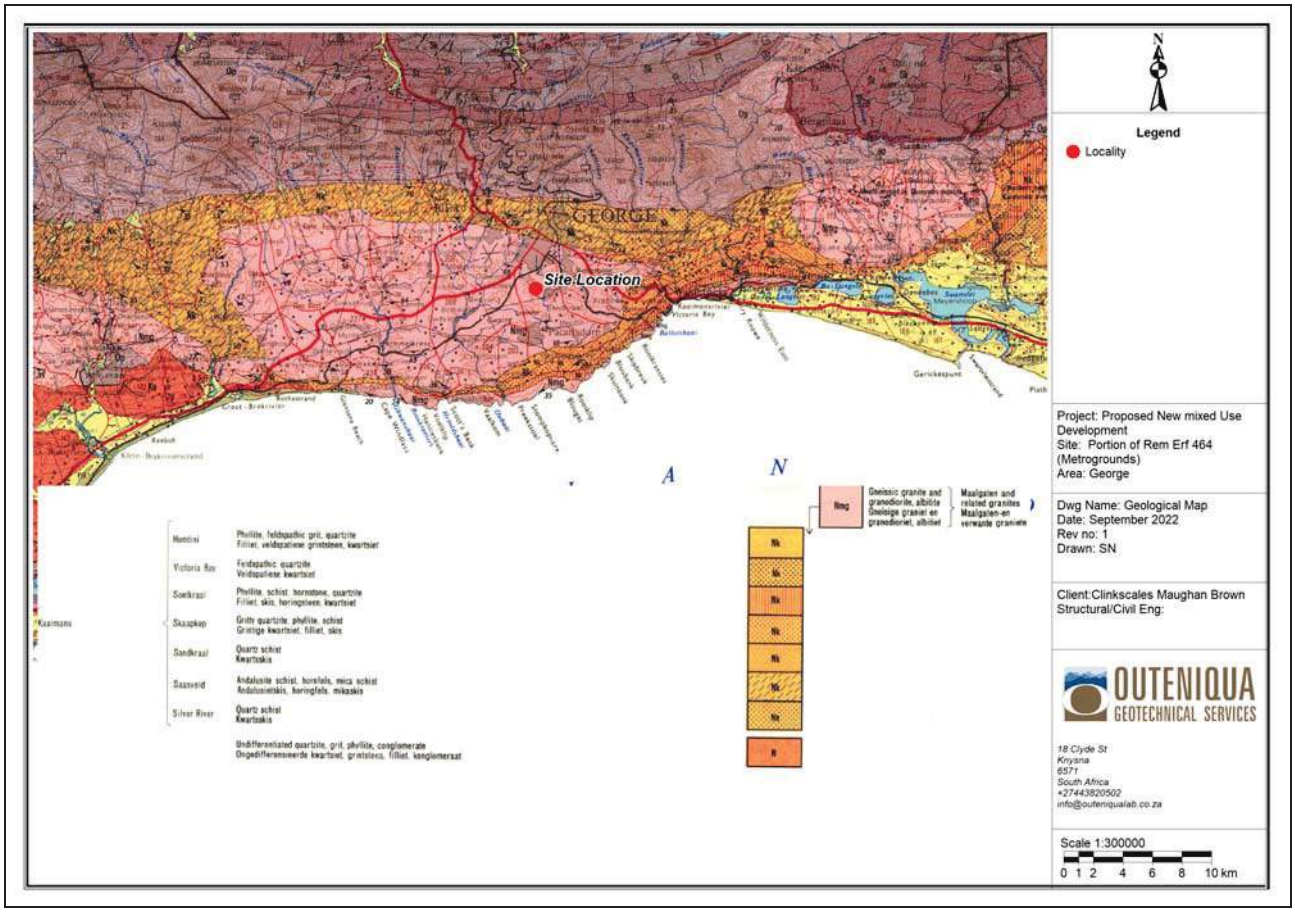


Figure 8: Geological map of site

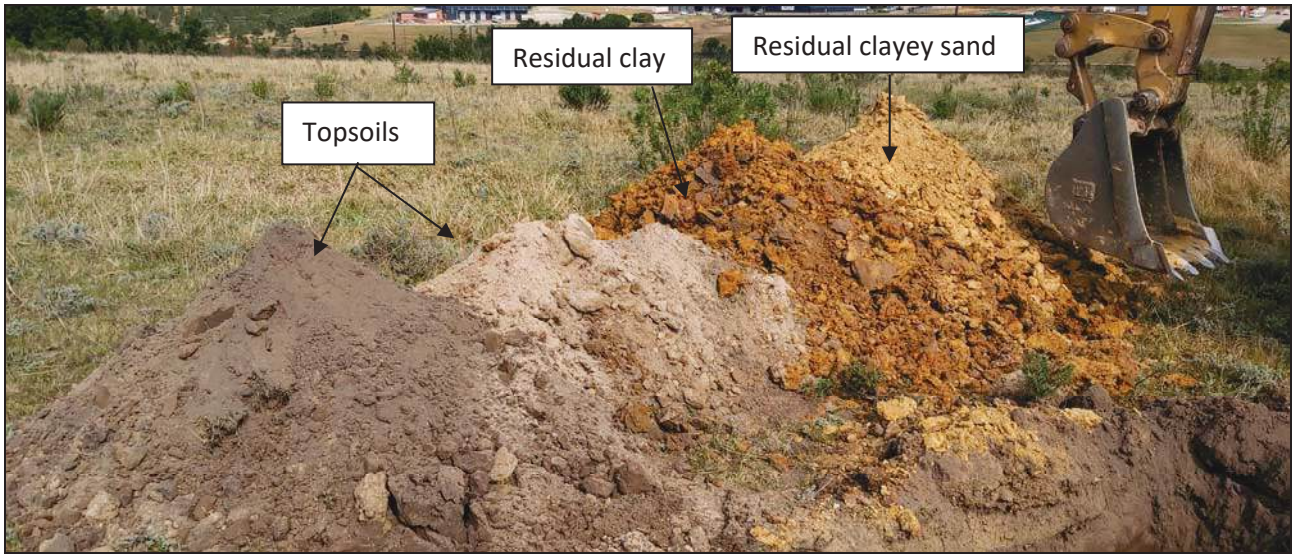


Figure 9: Typical insitu soil types extracted from test pits



Figure 10: Fill material encountered at TP3

A summary of soil horizons recorded in test pits has been provided in **Table 1 and Figure 11**.

Table 1: Summary of soil horizons recorded in test pits (in mm)

Test pos. No.	*Imported (fill) soil*	*Transported*	*Pedogenic soil*	*Residual soil*	*Rock*	*Total depth*	*Refusal?*
TP1	-	0-700	700-1300	1300-2500	-	2500	No
TP2	-	0-1600	1600-2200	2200-3000	-	3000	No
TP3	0-3000	-	-	3000-3200	-	3200	No
TP4	0-200	200-1000	1000-1200	1200-3000	-	3000	No
TP5	0-300	300-1000	1000-1100	1100-3600	-	3600	No
TP6	-	0-700	700-900	900-3000	-	3000	No
TP7	0-200	200-700	700-1000	1000-2800	-	2800	No
TP8	-	0-500	-	500-3000	-	3000	No
TP9	0-200	200-700	700-900	900-3200	-	3200	No
TP10	-	0-800	800-1000	1000-3000	-	3000	No
TP11	0-300	300-1000	1000-1100	1100-3000	-	3000	No
TP12	0-500	500-1600	-	1600-3000	-	3000	No
TP13	-	0-300	300-500	500-2500	-	2500	No
TP14	0-400	400-900	900-1100	1100-3000	-	3000	No
TP15	-	0-400	-	400-2800	-	2800	No
TP16	0-200	200-800	800-1100	1100-3000	-	3000	No
TP17	-	0-500	-	500-3000	-	3000	No
TP18	-	0-1300	1300-1500	1500-3000	-	3000	No
TP19	-	0-600	-	600-3000	-	3000	No
TP20	-	0-600	600-700	700-3000	-	3000	No

4.3 Insitu tests

DCP tests indicated typically loose consistency in the upper 0.8m of the profile but generally improving to medium dense/firm to dense/stiff below this depth. Loose horizons broadly

correlated to the transported colluvium, with a sharp improvement in bearing capacity at the base of this horizon, marking the top of the pedogenic gravel, which was relatively dense. Below the pedogenic ferricrete, tests indicated sporadic softening into firm (softer) clay horizons, but generally then transitioning downward into more stiff residual clays. In areas where a layer of uncontrolled fill covered the insitu soil, the DCPs indicated a thicker layer of loose soil with higher penetration rates (e.g. TP12). At some test positions (e.g. TP18) very moist – wet soil also resulted in high penetration rates, indicating lower bearing capacity of this soil. In summary, the tests generally indicated low bearing capacity for shallow foundations in the upper portion of the profile, requiring some consideration.

4.4 Lab tests

Representative samples of the insitu soil types were collected for Foundation Indicator tests to determine the particle size distribution (grading) and Atterberg limits. The results of the Foundation Indicator tests were summarised in **Table 2**.

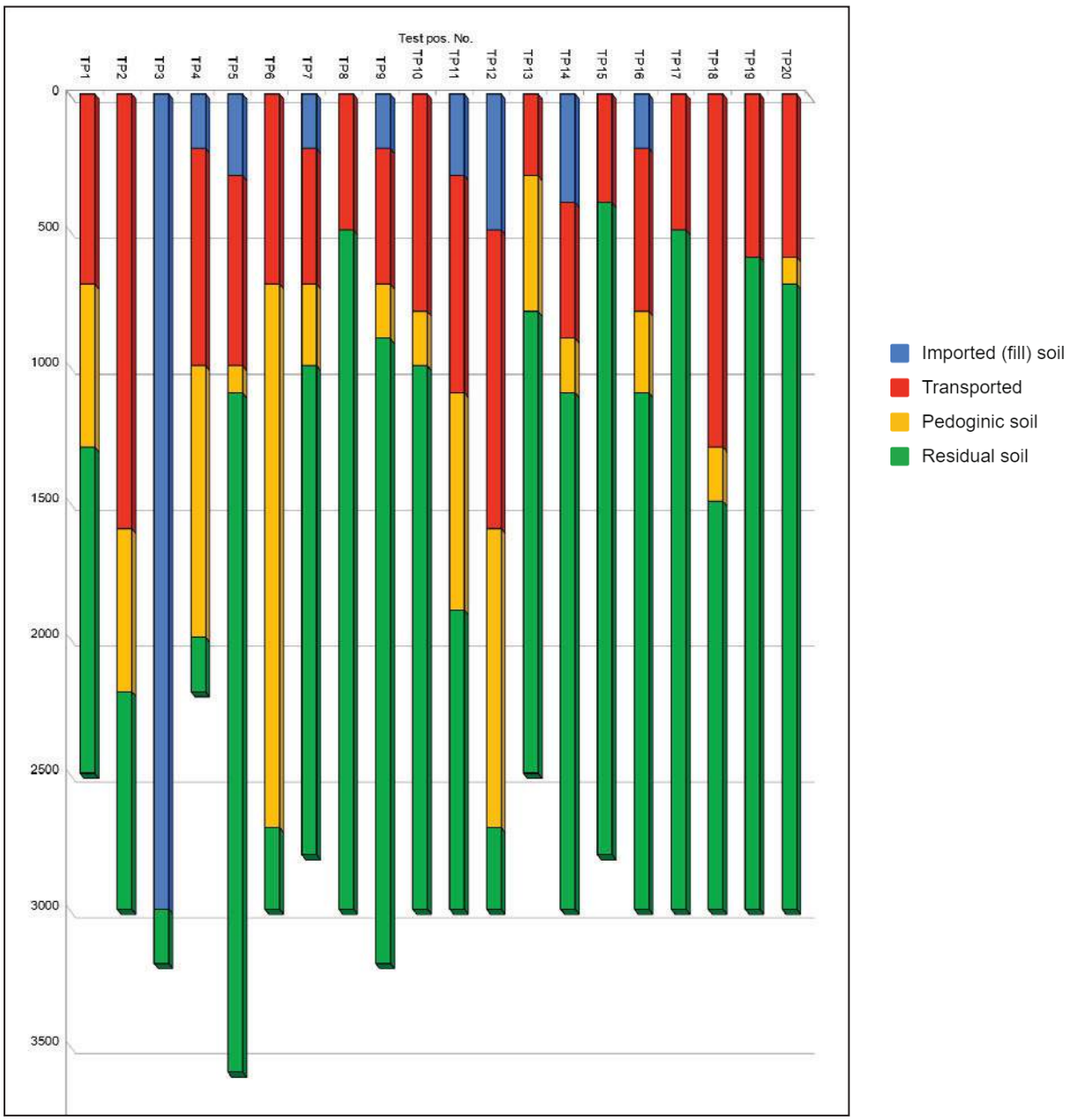


Figure 11: Summary of soil profiles (depth in mm)

Table 2: Summary of Foundation Indicator test results

Test Pit No	Sample Depth (mm)	Atterberg Limits			Particle Analysis (%)				MC*	PE**	USC ***
		PI	LL	LS	Clay	Silt	Sand	Gravel			
TP1	200-700	5	15	3	25	34	41	0	20.5	Low	CL-ML
TP1	700-1300	19	51	10	48	40	36	6	22.9	Low-Med	MH
TP7	700-1000	3	15	2	7	15	17	61	24	Low	GM
TP7	1000-2000	19	47	10	4	18	33	1	43	Low-Med	ML
TP7	2000-2800	18	44	9	32	16	50	2	36	Low-Med	SC
TP13	500-800	7	20	4	11	19	38	32	9.6	Low	SM-SC
TP13	800-1300	13	31	7	10	20	34	36	8.5	Low	SC
TP14	1100-2100	21	55	11	39	12	32	17	19.1	Low-Med	MH
TP18	600-1300	2	14	1	17	25	52	6	13.6	Low	SM
TP19	600-1600	15	42	8	29	25	41	5	22.1	Low-Med	ML

* Insitu Moisture Content ** Potential Expansiveness *** Unified Soil Classification

Foundation Indicator tests of residual soils indicated generally well-graded fine soils with a mixture of clay, silt and sand–sized particles (See **Figure 12**).

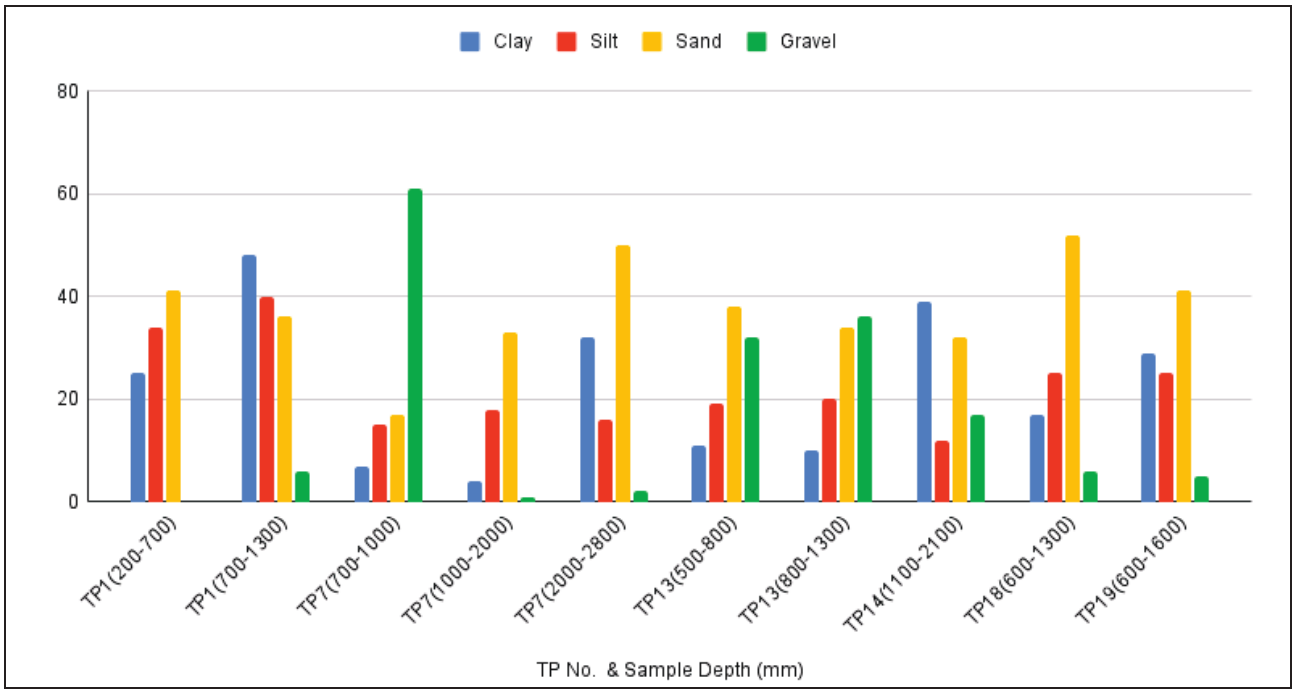


Figure 12: Particle size analysis distributions

Plasticity index (PI) was generally low to medium (<25 – see **Figure 13**). A borderline low-medium potential expansivity was expected from the residual soils which concurred with experience in the area. The soils tested were classified into the following groups under the Unified Soil Classification (USC) system:

- CL– Inorganic clays of low to medium plasticity
- ML – Inorganic silts of low to medium plasticity.
- GM – Silty gravels, gravel-sand-silt mixtures.
- MH – Inorganic silts of high plasticity.
- SC – Clayey sand, sand-clay mixtures.
- SM – Silty sand, sand-silt mixtures.

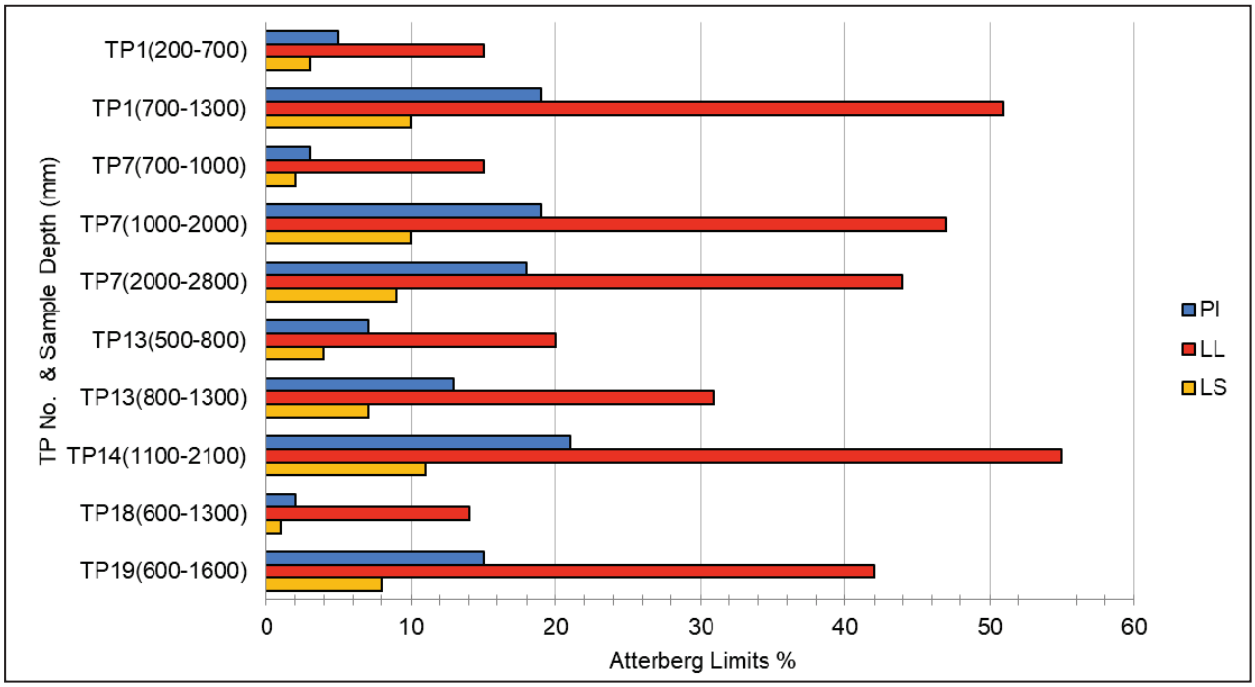


Figure 13: Atterberg Limits results

Representative samples were collected for Modified AASHTO density (Mod), CBR & Road Indicator tests to determine the potential of the material for structural fill purposes and/or for subgrade fill in road pavement design. The results of the tests were summarised in **Table 3** and **Figure 14**.

With one exception (the ferricrete gravel from TP14), the test results generally indicated low grading moduli (fine-grained), high swell/dilation properties, and generally low CBR values, indicating poor-quality road-building materials. Further recommendations were provided in **Chapter 6**.

Table 3: Summary of Mod/CBR/Indicator test results

Test Pit No	*Sample Depth (mm)*	*CBR at*					*Swell (%)*	*PI (%)*	*GM*	*MDD/ OMC*	*MDD/ OMC*
		100%	*98%*	*95%*	*93%*	*90%*					
TP1	700-1300	3	3	2	2	2	1.8	19	0.84	1662/21.9	Not Classified
TP13	800-2500	15	13	10	9	7	0.6	16	1.68	2072/7.8	Not Classified
TP14	400-1100	43	35	27	22	17	0	NP	1.24	2223/7.6	G6
TP19	600-1600	2	2	2	2	1	2.3	15	0.91	1810/16.2	Not Classified

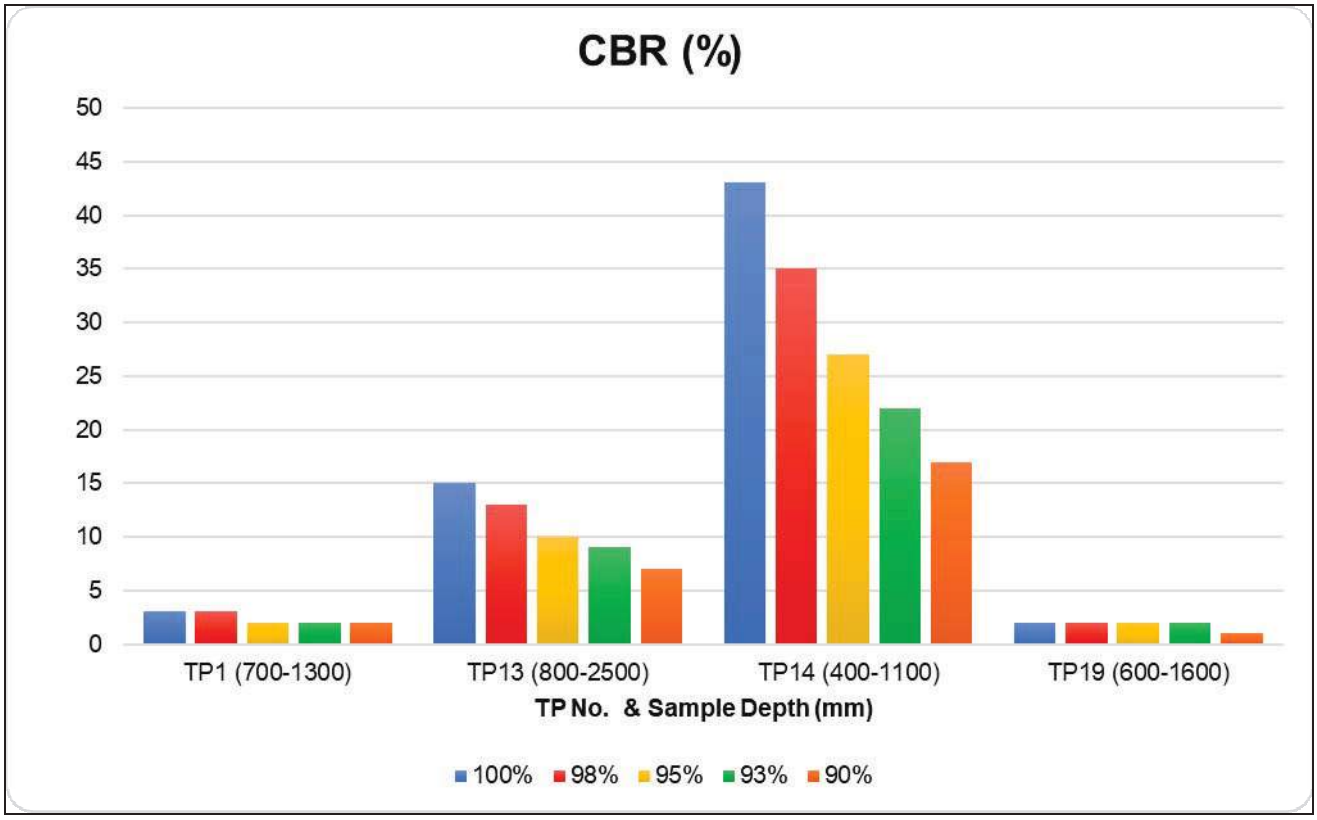


Figure 14: CBR test results

Samples of *in situ* soils were collected for soil chemistry tests (pH & Conductivity) in order to determine the aggressiveness of the soil which can affect buried services and concrete foundations. A summary of the results of the pH and conductivity tests were provided in **Table 4**.

Table 4: pH and conductivity test results summary

Test Position	*pH*	*Conductivity (S/m)*
TP1	7.8	0.0765
TP13	7.2	0.0437
TP14	6.7	0.0336
TP18	6.8	0.0192

Corrosion of metallic pipe fittings and concrete reinforcement may be negatively influenced by low or high pH, and high conductivity (indicating high concentration of dissolved salts in the soils). An indication of the influence of pH and conductivity on the corrosiveness of soil is given in **Table 5**.

Table 5: Influence of pH and conductivity on the corrosiveness of soil

pH	*Conductivity (S/m)*	*Potential Corrosiveness*
7-8	<0.01	Non-corrosive
5-6 or 9-10	0.01-0.05	Mildly corrosive
3-4 or 11-12	0.05-0.1	Corrosive
<3 or >12	>0.1	Highly corrosive

The lab results indicate mild to corrosive soil conditions due to dissolved salts in the soils, which is common in clayey soils and can cause corrosion (rusting) of buried metallic structures.

Undisturbed samples were also collected for oedometer tests to determine the compressibility and swell characteristics of the soil. The results were not available at the time of going to press and would be released in a revised report as they become available.

5. Geotechnical assessment

5.1 Geotechnical mapping

The site was broadly mapped according to the dominant geotechnical constraints that were identified during the investigation (See **Figure 15**). The constraints identified were discussed in the following chapters.



Figure 15: Geotechnical Map

5.2 Bearing capacity and settlement

Observations made in test pits and analysis of DCP tests indicated low bearing capacity of the insitu soils in the upper 1.0-1.5m below natural ground level, possibly extending slightly deeper in some areas. A conservative safe bearing capacity of 67kPa was calculated at a nominal founding depth of 0.7m below NGL on firm insitu soil (See Appendix 5) with less than 10mm expected settlement (classified as Terrain 1 - C1 category in terms of SANS10400-H). The underlying residual clays (weathered granite) generally presented a better founding medium with higher bearing capacity.

A significant portion of the site was underlain by thick deposits of rubbish/soil mix with no safe bearing capacity and thus classified as "uncontrolled fill" (Terrain 2 - Site Class P in terms of SANS10400-H). The fill highly sporadic and variable and was deemed unsuitable for recompaction and load bearing due to the presence of deleterious materials such as highly compressible organic material and rubbish (general waste). It was difficult to accurately assess

the lateral and vertical extent of the fill. It appeared as if the site had had several old trenches excavated and backfilled, in addition to the several obvious heaps of fill on surface. The presence of significant fill would have to be taken into account in the design of foundations and earthworks.

5.3 Heave

The investigations indicate potentially active clays with medium potential expansiveness, which concurs with previous experience in the area. The range of potential heave was conservatively estimated, based on empirical calculations, for the entire site at 10-15mm (H1 category in terms of SANS10400-H).

5.4 Groundwater

No free groundwater seepage was encountered in test pits but very moist soil conditions were noted in test pits on the lower slopes on the site, near drainage lines. Seasonal groundwater seepage was also expected in the uncontrolled fill material as this material contained significant voids. Seasonal seepage was also expected in the upper 1.5m in the profile during wet seasons which could potentially affect excavations and construction of foundations, requiring dewatering and some improvements.

5.5 Surface drainage and soil permeability

The central ridgeline/crest of the site had a fairly low slope gradient (increasing west and east towards natural drainage lines), and the insitu soils had a low permeability (estimated at 10^{-6} m/s). Surface water was encountered in some small existing localised depressions across the site (small ponds) where rainwater had accumulated on surface.

5.6 Slope stability

No natural slope stability issues were identified or expected from the areas proposed for development. Areas where uncontrolled filling has occurred on slopes, or where the natural ground has been significantly modified (excavations/diggings) could present some localised stability problems.

5.7 Excavations

All excavations to 3m were classified as "Soft" in terms of SABS1200D. Sidewalls of test pits were highly unstable at angles greater than 45° for any length of time mainly due to the unstable topsoil material.

6. Recommendations

The design of structures and civil services is the responsibility of the appointed civil and structural engineers. The recommendations contained herein do not supersede any applicable standards, codes or project specifications.

The following recommendations are based on limited information gained from the site investigation, and although the confidence in the information is high, variation in ground conditions may occur between information points. All geotechnical information should be confirmed during construction and if necessary, additional investigations may have to be commissioned. Any significant variations are to be brought to the attention of the authors for

comment or further recommendations. It is recommended that the structural engineer discuss his/her conceptual design with the geotechnical specialist to ensure that any calculations and recommendations are in line with current information.

6.1 General town planning and site development

The presence of existing infrastructure (overhead electrical lines) may have an impact on the proposed town planning layout. The natural topography will also play a significant role. The presence of deposits of uncontrolled fill could also present a hazard and obstacle to development, requiring earthworks to treat/remove this unsuitable material. The site topography and soil conditions therefore lends itself to the development of a series of engineered platforms.

6.2 Earthworks and civils

Civil works should be designed and constructed in accordance with SABS 1200, COLTO and/or any site-specific specifications provided by the civil engineer.

Some bush clearing, including the removal of medium sized trees would be required to clear site in preparation for construction. It is recommended that at least 150mm of organic-rich topsoil is stripped from the development areas (roads, platforms, etc) and stockpiled separately on site for landscaping purposes. Tree roots should also be grubbed from these areas. Any existing ponds or depressions that may contain surface water, that are not to be retained as part of the development, should be pumped dry and backfilled with suitable compacted fill to reinstate ground levels. Environmental input may be required for development near watercourses.

It is recommended that the site is developed with a series of engineered platforms using a combination of cut-to-fill terraces on sloping ground and ripped and recompacted soil on flatter ground.

Insitu soil obtained from excavations for platforms, road box cuts and services trenches is likely to be fine-grained and problematic for use as a compactable load-bearing fill material, and should therefore be used only for non-structural fill applications or general fill over pipe cradles.

Recommendations for road design include the cutting of the roadbed to the required line and level, followed by compaction to 90% MDD to identify soft spots, which should be removed and replaced with suitable imported compactable fill, such as G7 or G9. Side drainage is important to achieve compaction of the roadbed. Subsoil drains on upslope side or both sides (in the case of flat terrain) are also recommended. The recommended road layerworks include 150mm of G7 SSG (compacted to 93%MDD), followed by 150mm G5 subbase (compacted to 95%MDD), followed by 150mm G1/2 base course and asphalt, or alternatively 80mm concrete pavers. Stabilisation of the subbase can be considered due to the poor subgrade conditions.

Good site landscaping and a piped underground stormwater management system is recommended to collect, divert and control the discharge of stormwater from properties and roads to prevent flooding and ingress into subsoils, which could affect the stability of the soils, causing settlement of structures or erosion problems.

6.3 Foundations

Foundations should be designed and constructed in accordance with SANS 10400-H or any site-specific specification issued by the structural engineers.

Site testing indicates the presence of moderately problematic insitu soils, including active and/or compressible soils. However, the tests also indicated the presence of significant deposits of variable but widespread uncontrolled fill material which could be highly compressible and problematic under structures. The impact of this and other constraints is the requirement for improved foundation systems to mitigate settlement of structures. The recommended improvements include removal and replacement of unsuitable soil below foundations, stiffening of foundation reinforcement, and/or improved site drainage measures. Further investigations may be required during construction to develop solutions. Additional systems such as brick-force reinforcement and articulation joints in walls are also recommended where appropriate.

The recommended foundation systems for single/double storey structures include reinforced concrete strip foundations or rafts, supported on dense/stiff insitu soil or engineered fill. On sloping ground, where potentially loose overburden can be removed to a minimum depth of say 1m, structures can be well founded in cut on stiff insitu soil. In areas with flatter ground, potentially loose overburden (assume minimum 0.7m) should be ripped and recompacted with several passes of a pad-foot roller to achieve minimum density of 93%MDD. Additional improvements, such as a layer of selected granular fill such as G5, G6 or G7 gravel/crushed rock, can be considered as a final fill layer on such compacted platforms below the raft, compacted to 95%MDD. If localised thicker deposits of highly unsuitable soil are encountered during earthworks, decisions can be made on site to remove and replace more material as dictated by the on-site conditions.

7. Conclusions

The site was generally considered suitable for the proposed urban development, but some challenging geotechnical constraints were encountered, requiring special engineering solutions to mitigate excessive movements in structures. Some preliminary recommendations were provided for consideration by the designers, but all information should be verified on site and further investigations may be required.

ANNEXURE C

GEORGE GIS: WATER NETWORK

GIPTN New Bus Depot ERF 44

Legend

- CAD
- Registered Properties
- SG Approved Cadastre
- Wards (2019/2020)

Symbols

Type

- Air Valve
- Bulk Meter
- Chute
- Fire Hydrant
- Manhole
- Meter
- Scour Valve
- Strainer
- Surge Tank
- Isolation Valve
- <all other values>

House Connections

House connection type

- Double House Connection
- Single House Connection
- Leading Pipe
- <all other values>

Nodes

Type

- Borehole
- Break Pressure Tank
- Dam Inlet
- Reservoir
- River inlet
- Sump
- Tank
- Water Tower
- Water Treatment Plant

Links

Pipe Type

- Check Valve
- Flow Control Valve
- General Purpose Valve
- Pipes
- Pressure Reducing Valve
- Pressure Sustaining Valve
- Pump
- <all other values>



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Disclaimer
George Municipality makes no warranties as to the correctness of the information supplied.
Persons relying on this information do so entirely at their own risk.

George Municipality will not be liable for any claims whatsoever, whether for damages or otherwise, which may arise as a result of inaccuracies in the information supplied.

ANNEXURE D

GEORGE GIS: SEWER NETWORK

GIPTN New Bus Depot ERF 44

Legend

- CAD
- Registered Properties
- SG Approved Cadastre
- Wards (2019/2020)

Symbols

Symbol Type

- Air Valve
- Inspection Manhole
- Meter
- Non-Return Valve
- Scour
- Valve
- <all other values>

House Connections

House connection pipe

- Multiple House Connection
- Single House Connection
- Leading Pipe
- <all other values>

Structures

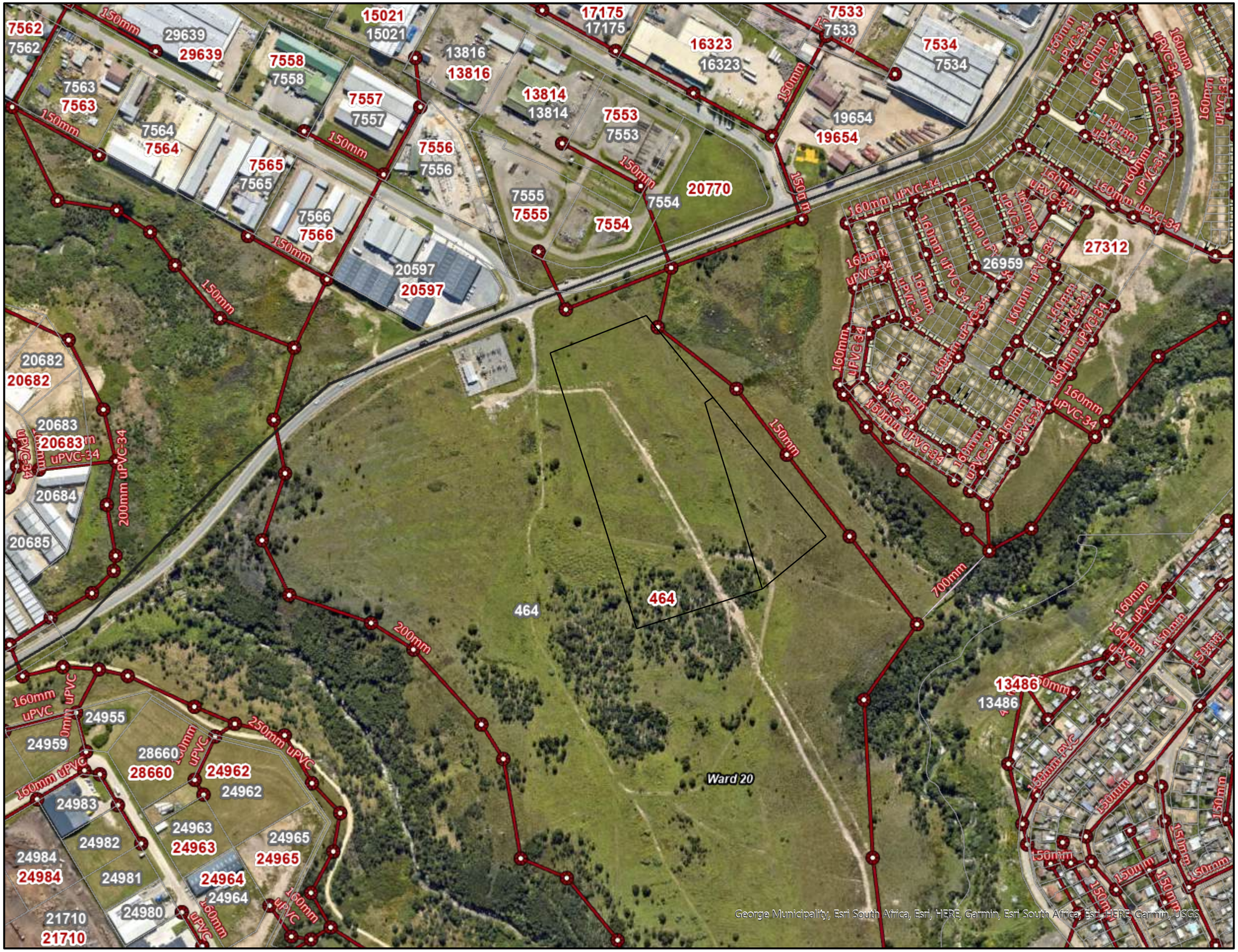
Structure Type

- Conservancy Tank
- Diversion
- Dummy
- End Manhole
- Flushing Siphon
- Manhole
- Node
- Pump Structure
- Rodding Eye
- Sub-Catchment
- Sump
- T-Piece
- Top End
- WWTP
- <all other values>

Links

Pipe Type

- Bridge
- Culvert/Sleeve
- Encased
- Gravity
- Rising
- Siphon
- <all other values>



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ANNEXURE E

GEORGE GIS: STORM WATER NETWORK

GIPTN New Bus Depot ERF 44

Legend

- CAD
- Registered Properties
- SG Approved Cadastre
- Wards (2019/2020)
- Pipes



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Planning and Development
E-mail: kjmukhovha@george.gov.za
Tel: +27 (0)44 801 9477

LAND USE PLANNING PRE-APPLICATION CONSULTATION FORM

PLEASE NOTE:

Pre-application consultation is an advisory session and is required prior to submission of an application for rezoning, consent use, temporary departure and subdivision. It does not in any way pre-empt the outcome of any future application which may be submitted to the Municipality.

PART A: PARTICULARS

Reference number: **Collab Ref. No.:**

Purpose of consultation: **Pre-Consultation meeting for the Go-George relocation**

Brief proposal: **Subdivision and Rezoning application to establish the Go-George Bus Depot Site**

Property(ies) description: **Remainder Erf 464, George**

Date: **01 October 2025**

Attendees:

	Name & Surname	Organisation	Contact Number	E-mail
Official	**Khuliso Mukhovha**	**George Municipality**	**044 801 9477**	**kjmukhovha@george.gov.za**
	Naudica Swanepoel	**George Municipality**	**044 801 9477**	**nswanepoel@george.gov.za**
Pre-applicant	**Mark Job**	**JONO Trust Professional Planners**	**021 532 1249**	**Mark@jonotrust.co.za**
	Chirsten Africa	**JONO Trust Professional Planners**	**068 040 3195**	**Chirsten@jonotrust.co.za**

Documentation provided for discussion:

(Include document reference, document/plan dates and plan numbers where possible and attach to this form)

The following documents are attached as the annexures:

1. **Title Deed (GEQ15-15/1922).**
2. **Proposed Subdivision Plan.**
3. **Site Development Plan.**

Has pre-application been undertaken for a Land Development application with the Department of Environmental Affairs & Development Planning (DEA&DP)?

Yes, the minutes/outcomes are attached in the Annexures document.

YES	NO

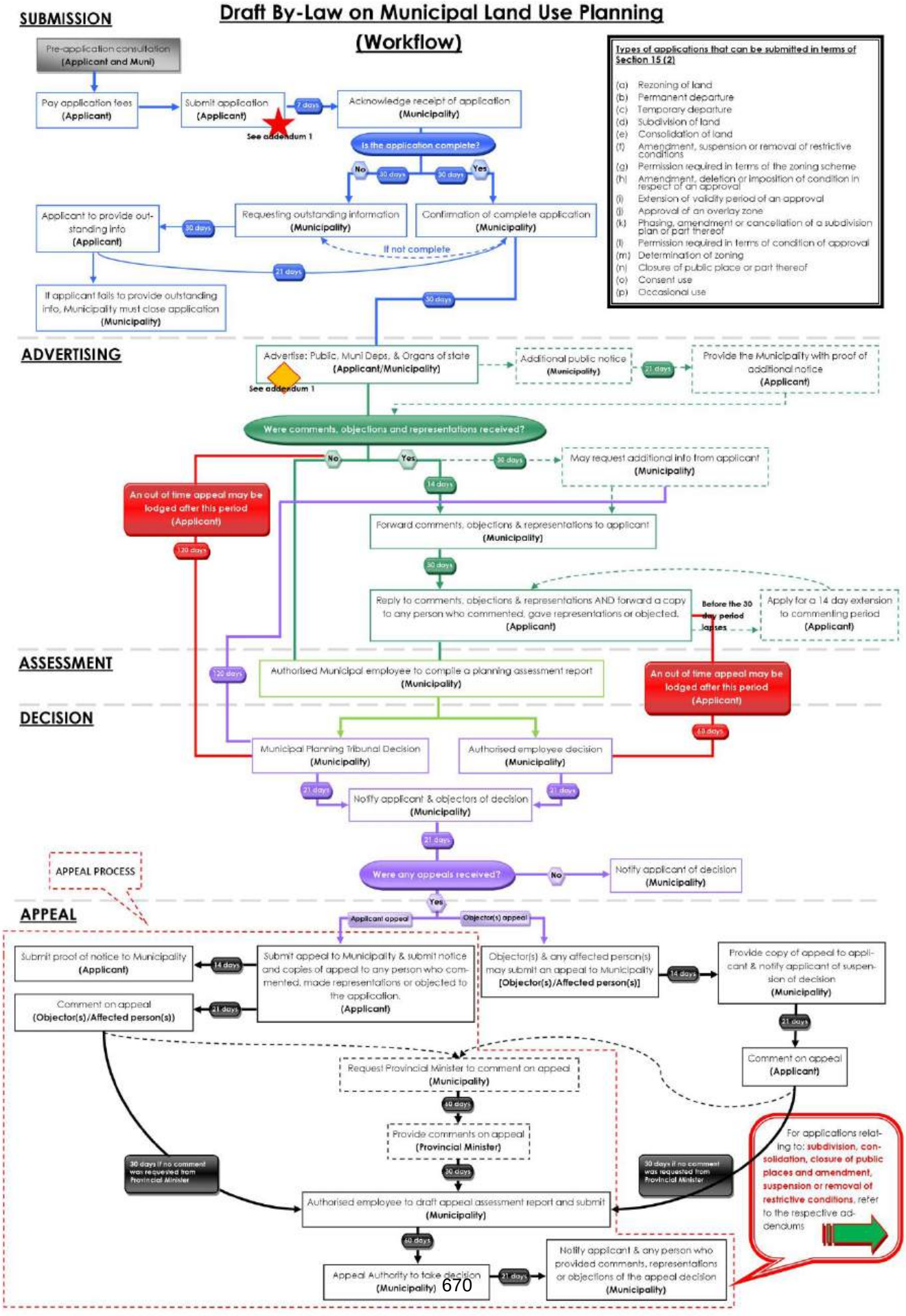
Comprehensive overview of proposal:

JONO Trust Professional Planners was appointed to prepare and submit the required applications to:

- Subdivide Remainder Erf 464 George into 2 portions in order to establish a dedicated property for the bus depot. The subdivision application is made in terms of Section 15 (2)(d) of the George Land Use Planning By-Law (2023); and
- Rezone the subdivided portions from 'Undetermined Use Zone' to 'Transport Zone 1' to establish a bus depot. The rezoning application is made in terms of Section 15 (2)(a) of the George Land Use Planning By-Law (2023).

PART B: APPLICATION PROCESS

(WILL FULLY APPLY ONLY ONCE LUPA REGULATIONS ARE IN FORCE)



PART C: QUESTIONNAIRES

SECTION A:
DETERMINATION OF APPLICATION TYPES, PRESCRIBED NOTICE AND ADVERTISEMENT PROCEDURES

Tick if relevant		What land use planning applications are required?	Application fees payable
✓	**2(a)**	**a rezoning of land;**	**TBD**
	2(b)	a permanent departure from the development parameters of the zoning scheme;	R
	2(c)	a departure granted on a temporary basis to utilise land for a purpose not permitted in terms of the primary rights of the zoning applicable to the land;	R
✓	**2(d)**	**a subdivision of land that is not exempted in terms of section 24, including the registration of a servitude or lease agreement;**	**TBD**
	2(e)	a consolidation of land that is not exempted in terms of section 24;	R
	2(f)	a removal, suspension or amendment of restrictive conditions in respect of a land unit;	R
	2(g)	a permission required in terms of the zoning scheme;	R
	2(h)	an amendment, deletion or imposition of conditions in respect of an existing approval;	R
	2(i)	an extension of the validity period of an approval;	R
	2(j)	an approval of an overlay zone as contemplated in the zoning scheme;	R
	2(k)	an amendment or cancellation of an approved subdivision plan or part thereof, including a general plan or diagram;	R
	2(l)	a permission required in terms of a condition of approval;	R
	2(m)	A determination of a zoning;	R
	2(n)	A closure of a public place or part thereof;	R
	2(o)	a consent use contemplated in the zoning scheme;	R
	2(p)	an occasional use of land;	R
	2(q)	to disestablish a home owner's association;	R
	2(r)	to rectify a failure by a home owner's association to meet its obligations in respect of the control over or maintenance of services;	R
	2(s)	a permission required for the reconstruction of an existing building that constitutes a non-conforming use that is destroyed or damaged to the extent that it is necessary to demolish a substantial part of the building	R
Tick if relevant		**What prescribed notice and advertisement procedures will be required?**	**Advertising fees payable**
Y	N	Serving of notices (i.e. registered letters etc.)	R
Y	N	Publication of notices (i.e. Provincial Gazette, Local Newspaper(s) etc.)	R
Y	N	Additional publication of notices (i.e. Site notice, public meeting, local radio, website, letters of consent etc.)	R
Y	N	Placing of final notice (i.e. Provincial Gazette etc.)	R
		TOTAL APPLICATION FEE* (VAT excluded):	**TBD**

PLEASE NOTE: * *Application fees are estimated on the information discussed and are subject to change with submission of the formal application and/or yearly application fee increase.*

SECTION B:

PROVISIONS IN TERMS OF THE RELEVANT PLANNING LEGISLATION / POLICIES / GUIDELINES

QUESTIONS REGARDING PLANNING POLICY CONTEXT	YES	NO	TO BE DETERMINED	COMMENT
Is any Municipal Integrated Development Plan (IDP)/Spatial Development Framework (SDF) and/or any other Municipal policies/guidelines applicable? If yes, is the proposal in line with the aforementioned documentation/plans?			**X**	Motivate the proposal in terms of the George Municipal Spatial Development Framework, 2023.
Any applicable restrictive condition(s) prohibiting the proposal? If yes, is/are the condition(s) in favour of a third party(ies)? [List condition numbers and third party(ies)]			**X**	Submit Conveyancer's Certificate indicating restrictions relating to the proposal, the beneficiaries as well as method to be dealt with.
Any other Municipal by-law that may be relevant to application? (If yes, specify)		**X**		
Zoning Scheme Regulation considerations: Which zoning scheme regulations apply to this site? ***George Integrated Zoning Scheme By-Law (2023)*** What is the current zoning of the property? ***Undetermined Use Zone.*** What is the proposed zoning of the property? ***Transport Zone I.*** Does the proposal fall within the provisions/parameters of the zoning scheme? ***Yes.*** Are additional applications required to deviate from the zoning scheme? (if yes, specify) ***No.***				

QUESTIONS REGARDING OTHER PLANNING CONSIDERATIONS	YES	NO	TBD	COMMENT
Is the proposal in line with the Provincial Spatial Development Framework (PSDF) and/or any other Provincial bylaws/policies/guidelines/documents?			**X**	Motivate the proposal in terms of the Provincial Spatial Development Framework.
Are any regional/district spatial plans relevant? If yes, is the proposal in line with the document/plans?		**X**		The George South-East Development Framework (2015) is relevant to the proposed development. Motivate the proposal in terms of the LSDF.

SECTION C:

CONSENT / COMMENT REQUIRED FROM OTHER ORGANS OF STATE

OUESTIONS REGARDING CONSENT / COMMENT REQUIRED	**YES**	**NO**	**TO BE DETERMINED**	**OBTAIN APPROVAL / CONSENT / COMMENT FROM:**
Is/was the property(ies) utilised for agricultural purposes?		**X**		Western Cape Provincial Department of Agriculture
Will the proposal require approval in terms of Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970)?		**X**		National Department of Agriculture
Will the proposal trigger a listed activity in terms of National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA)?	**X**			**Western Cape Provincial Department of Environmental Affairs & Development Planning (DEA&DP)**
Will the proposal require authorisation in terms of Specific Environmental Management Act(s) (SEMA)? (National Environmental Management: Protected Areas Act, 2003 (Act 57 of 2003) (NEM:PAA) / National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004) (NEM:BA) / National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) (NEM:AQA) / National Environmental Management: Integrated Coastal Management Act, 2008 (Act 24 of 2008) (~~NEM:ICM) /~~ National Environmental Management: Waste Act, 2008 (Act 59 of 2008) (NEM:WA)			**X**	National Department of Environmental Affairs (DEA) & DEA&DP
Will the proposal require authorisation in terms of the National Water Act, 1998 (Act 36 of 1998)?			**X**	National Department of Water & Sanitation (DWS)
Will the proposal trigger a listed activity in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	**X**			**South African Heritage Resources Agency (SAHRA) & Heritage Western Cape (HWC)**
Will the proposal have an impact on any National or Provincial roads?		**X**		National Department of Transport / South Africa National Roads Agency Ltd. (SANRAL) & Western Cape Provincial Department of Transport and Public Works (DTPW)

OUESTIONS REGARDING CONSENT / COMMENT REQUIRED	YES	NO	TO BE DETERMINED	OBTAIN APPROVAL / CONSENT / COMMENT FROM:
Will the proposal trigger a listed activity in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993): Major Hazard Installations Regulations		X		National Department of Labour (DL)
Will the proposal affect any Eskom owned land and/or servitudes?			X	Eskom
Will the proposal affect any Telkom owned land and/or servitudes?		X		Telkom
Will the proposal affect any Transnet owned land and/or servitudes?		X		Transnet
Is the property subject to a land / restitution claims?		X		National Department of Rural Development & Land Reform
Will the proposal require comments from SANParks and/or CapeNature?		X		SANParks / CapeNature
Will the proposal require comments from DEFF?			X	Department of Environment, Forestry and Fishery
Is the property subject to any existing mineral rights?		X		National Department of Mineral Resources
Does the proposal lead to densification to such an extent that the number of schools, healthcare facilities, libraries, safety services, etc. In the area may be impacted on? (strikethrough irrelevant)		X		Western Cape Provincial Departments of Cultural Affairs & Sport (DCAS), Education, Social Development, Health and Community Safety

SECTION D:

SERVICE REQUIREMENTS

DOES THE PROPOSAL REQUIRE THE FOLLOWING ADDITIONAL INFRASTRUCTURE / SERVICES?	YES	NO	TO BE DETERMINED	OBTAIN COMMENT FROM: (list internal department)
Electricity supply:			X	Directorate: Electro-technical Services
Water supply:			X	Directorate: Civil Engineering Services
Sewerage and waste water:			X	Directorate: Civil Engineering Services
Stormwater:			X	Directorate: Civil Engineering Services
Road network:			X	Directorate: Civil Engineering Services

Telecommunication services:			**X**	
Other services required? Please specify.			**X**	
Development charges:			**X**	

PART D: COPIES OF PLANS / DOCUMENTS TO BE SUBMITTED AS PART OF THE APPLICATION

COMPULSORY INFORMATION REQUIRED:						
Y	N	Power of Attorney / Owner's consent if applicant is not owner (if applicable)		**Y**	N	S.G. noting sheet extract / Erf diagram / General Plan
Y	N	Motivation report / letter		**Y**	N	Full copy of the Title Deed
Y	N	Locality Plan		**Y**	N	Site Layout Plan
Y	N	Proof of payment of fees		**Y**	N	Bondholder's consent
MINIMUM AND ADDITIONAL REQUIREMENTS:						
Y	N	Site Development Plan		**Y**	N	Conveyancer's Certificate
Y	N	Land Use Plan		**Y**	N	Proposed Zoning plan
Y	N	Phasing Plan		Y	**N**	Consolidation Plan
Y	**N**	Abutting owner's consent		**Y**	N	Landscaping / Tree Plan
Y	N	Proposed Subdivision Plan (including street names and numbers)		Y	**N**	Copy of original approval letter
Y	N	Services Report or indication of all municipal services / registered servitudes		Y	**N**	Home Owners' Association consent
Y	N	Copy of Environmental Impact Assessment (EIA) / Heritage Impact Assessment (HIA) / Traffic Impact Assessment (TIA) / Traffic Impact Statement (TIS) / Major Hazard Impact Assessment (MHIA) /Environmental Authorisation (EA) / Record of Decision (ROD) (strikethrough irrelevant)		Y	**N**	1 : 50 / 1:100 Flood line determination (plan / report)
Y	**N**	Other (specify)		Y	**N**	Required number of documentation copies

PART E: DISCUSSION

- The pre-application was discussed at a meeting held on 1 October 2025.
- The application was submitted with the documents as attached.

Town Planning

- The application must address the spatial policies and objectives of the area i.e. George Municipal Spatial Development Framework, 2023 and the George South-East Development Framework, 2015.
- Any deviation from the LSDF or MSDF should be motivated.
- Evaluate the proposal in terms of the George Integrated Zoning Scheme By-law, 2023. Indicate compliance with the zoning objective, land use description and development parameters.
- Any deviation from the applicable development parameters requires a departure application.
- Motivate the application in terms of SPLUMA, LUPA and PSDF.

- The applicant may consider including access road as part of the subdivision (alternative option on the proposed subdivision plan). It is advised that the applicant consults with the consultant for Metro Ground Mixed Use Development with the intent to incorporate and integrate the two developments.
- The developer to ensure that the proposal is in line with Environmental Authorization. Please indicate compliance.
- A Site Development Plan and Landscaping plan will be required.
- Indicate compliance with the Council Resolution.
- Ensure the submission of the latest documentation.
- Include the environmental report and outcome and relevant studies
- Include the heritage report and outcome.

Civil and Electrical Engineering Services

- It is the intention to start using electrical vehicles (buses); thus, the applicant should discuss electrical requirements with the Electrotechnical Services Directorate.
- Consider overhead lines.
- Consult regarding the re-establishment of services.

PART F: SUMMARY / WAY FORWARD

- Application that addresses the above issues may be submitted via Collab Portal.

OFFICIAL: KHULISO MUKHOVHA

SIGNED:

DATE: 14 OCTOBER 2025

PRE-APPLICANT: MARK JOB

SIGNED:

DATE: 16 Oct. 2025

OFFICIAL: NAUDICA SWANEPOEL

SIGNED:

DATE: 15 OCTOBER 2025

**Please note that the above comments are subject to the documents and information available to us at the time of the pre-application meeting and we reserve our rights to elaborate on this matter further and/or request more information/documents should it be deemed necessary.*

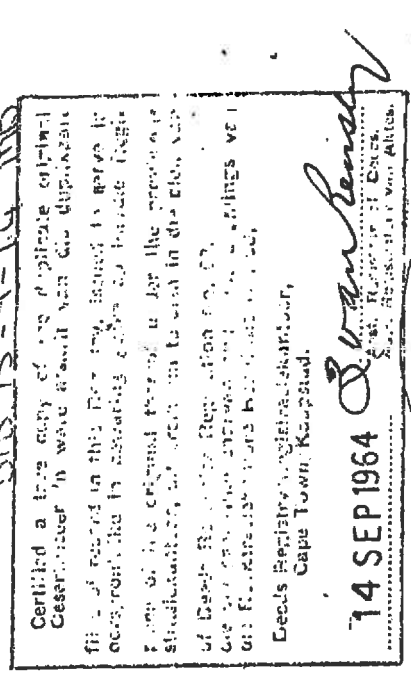
(Book, Page)
15-6-22

George Quitrents Vol. 15 No. 15

11/15 Original Plan of Lots
[illegible]
as Surveyed by Plan 14
in Camerons Plan 16
on Great Main Road
Hic

XEROX COPY ONLY

CROWN GRANT







CROWN GRANT

Grant under Section 10,
Act No. 15, 1887.

IN THE NAME AND ON BEHALF OF HIS MAJESTY GEORGE THE FIFTH, BY THE GRACE OF GOD OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND, AND OF THE BRITISH DOMINIONS BEYOND THE SEAS KING, DEFENDER OF THE FAITH, EMPEROR OF INDIA:

WHEREAS under and by virtue of the provisions contained in Section 10 of the Act No. 15 of 1887 of the Cape of Good Hope, entitled an "Act for regulating the manner in which the Crown Lands of the Colony shall be disposed of", grants or reserves of Crown Lands within the limits of a Municipality may be made by the Governor-General for the benefit of the inhabitants of the Municipality:

AND WHEREAS the grant in favour of the COUNCIL OF THE MUNICIPALITY OF GEORGE of a certain piece of land situate in the DIVISION OF GEORGE, Province of the Cape of Good Hope, has been duly authorised:

NOW, THEREFORE, THESE PRESENTS WITNESS that there is here-

TY OF GEORGE the said piece of land named THE GEORGE TOWN COMMONAGE, measuring Three thousand Seven hundred and eighty-nine morgen two hundred and thirteen square roods, one hundred and thirteen square feet (3789 Mor: 213 Sq. Rds: 113 Sq.Ft) situated as aforesaid and represented and described in the diagram hereunto annexed, framed by Surveyor R.E. Dumbleton, dated August, 1919, with full power and authority henceforth to possess the same in perpetuity, subject to the following conditions:-

(1) That the Governor-General shall have the right at all times of taking such portions of the land so granted as may be needed for public purposes only (which shall not include land required for Forestry purposes) without paying compensation, provided, however, that in the event of any land being required for such public purposes on which improvements shall have been effected, then, in that case payment of compensation shall be made for such land in such sum of money as may be mutually agreed upon by the parties concerned, or failing such agreement, as may be awarded by three appraisers, one to be appointed by each side, and a third to be chosen by the two others before proceeding to act, or any two of them shall award:

(2) That all existing roads and thoroughfares shall remain free and uninterrupted, and that the Government or other competent authority shall have the right when necessary at any time to make further roads over the land in question:

(3) That all rights to minerals, mineral products, mineral oils, and precious stones, precious or base metals on or under the land hereby granted are expressly reserved to the Crown, together with the right of access to any mines or works undertaken for mining or prospecting purposes by any person duly authorised in that behalf. The land is subject to such further rights as the public or the Government now may or may hereafter have or be entitled to obtain under or by virtue of any law relating to the prospecting, digging, mining, or exploitation of minerals, mineral products, mineral oils, precious stones, precious or base metals on or under the land hereby granted, which rights shall not be impaired or in any way affected by the title-deed.

679

connection with the establishment and maintenance of a rifle range, including the right of building and maintaining the necessary butts, fire points, excavations, shelters, sheds, huts, and other structures, of effecting and maintaining the necessary clearings upon the said range, and of fencing such parts of range as may be necessary, provided that the whole area to be fenced shall not exceed 100 by 150 yards:

(5) In the event of the Municipality undertaking planting operations on the Commonage, a clear space of ground, in no part less than 50 yards in width must always be left between the boundary of any Government Forests or Plantations and the external rows of trees of the Municipal Plantations in order that such clearing and burning of vegetation may be carried out as may be considered necessary for the protection of the Government Forests or Plantations and the Government shall have the right, free of compensation, to carry out such clearing and burning operations as may be considered necessary:

The Government shall further have the right, free of compensation, to make such roads on the commonage as may be reasonably necessary for the working of any Crown Forests or Railway Plantations as adjoin the commonage, provided that the location of such roads shall be determined by full agreement between both parties and failing such agreement by arbitration in manner as provided for in Clause 1 of the conditions annexed to this Deed of Grant. All such roads to be maintained by the Government, and the public of George to have the right to the reasonable use of such roads:

THUS DONE and signed by the Secretary for Lands at CAPE TOWN on the 15th day of June 1922, duly authorised thereto in that behalf by the Governor-General, in terms of the Crown Land Disposal (Execution of Deeds) Act, 1911.

J. Somerville

SECRETARY FOR LANDS.

(Sgd) Edwd McCallum
Chief Registration Clerk.

IN TERMS of the Executive Council Minute No. 77 of the 11th January 1939, and filed as No. 3/1939 the Condition lettered (1) appearing herein, has been cancelled and the following

"That the Governor-General shall have the right at all times of resuming for public purposes (which shall not include land required for Forestry purposes), such portion or portions of the land hereby granted as may not have been alienated by the Town Council.

In the event of resumption as aforesaid no compensation shall be payable by the Government except in respect of substantial improvements of a permanent nature erected or made on the land resumed whether by the Town Council or by any other person or body acting under the express authority of the said Council"

substituted therefor.

Deeds Registry
CAPE TOWN
9 MAR 1939

W.R. Bezuidenhout
for REGISTRAR OF DEEDS.

681

to M.H. Fotheringham

528 Sq.rds. 5 Sq.ft. Transf.i. 17.6.1925 No 5113
to L.J.E. van Reenen

...ht of resumption waived in respect of
...5 portions of Town Commonage viz:
...pieces at Rosemoor = approximately 1 morgen
...of land called "the George Show Grounds"
...of land south west of & adjoining the
...Dept. Saw Mill Site, South-east of
...Town, approximately 1½ morgen
...Ex. Co. minute No C 5957/2 dd. 27.9.26. (D.S.)
(Sgd.) ? 1/10/26

...min. 3136 of 20.9.23. amplified by addition
...in alia, - two of such portions being described
...DRC' plan of part E of the George Town
...onage in extent 1 morgen, and the Roman
...Church Mission School Side plan of plan E
...eorge Town Commonage in extent 1 mor. 1.35 Sq.ft.
...Ex. Co. min. 2918 dd. 28.9.25. (D.S.)

...t of Resumption waived in respect of
...nd D.S. situate North and South of the
...line and adjoining Nieuwoudtville
...of the Commonage. Vide Copy Ex. Co.
No. 1061 dd. 7.4.1925 forwarded by Lands Dept.
...No C. 5957/2 dated 2 May 1925. from D.S.
(Sgd) B.L.
24/7/25

For further endorsements see Page 6

of Land measuring 5 morgen approx., plan of the George Town Commonage. Vide Ex. Co. min. 4020 dd. 22/10/26 Lands. min. C 5957/2 dd. 10.1.1927 (D.S.)

Lot 88 = 5 morgen 362 Sq rds 85 Sq ft.
TRANSFERRED 5.3.1928 (No 1999)
to the Governor General's Fund Reserve.

Lot 90 = 276 Sq rds 15 Sq ft.
TRANSFERRED 24.10.1927 No 10594
to J.A. [illegible]

Lot 91 = 420 Sq rds 40 Sq ft.
TRANSFERRED 24.10.1927 No 10595
to A.E. Davis.

Lot 92 = 315 Sq rds 129 Sq ft.
TRANSFERRED 24.10.1927. No 10596
to Jas C. Dreyer

Lot 93 = 2 Mgn. 538 Sq rds 120 Sq ft.
TRANSFERRED 24.10.1927. No 10597.
to A. Coote, Widow

Lot 89 = 4 Mgn. 521 Sq rds 105 Sq ft
TRANSFERRED 5.12.1927. No 12208
to F.J. Slander

LOT Railway Triangle, EXTENSION No 2. = 24 Sq rds 133 Sq ft.
LOT Railway Station Extensions = 1 mgn 444 Sq rds 127 Sq ft.
TRANSFERRED 13.8.1929. No 5026 to
the Govt. of the Union of South Africa in
its Railways & Harbours Administration.

of (a) Ex. Co. Min. 275/1932
No 1 herein has been waived in so far as an approximately 6 morgen adjoining the Roman Church Mission school site Extension as per plan sketch with Ex Co. min. 275 dd. 9. 2. 1932.
Ex. Co. Minute No 276/1932 as before, in so morgen adjoining Railway Property as appears sketch with Ex Co. Min. No 276 dd 9.2.1932
D.S. 1932. (1931). Registrar of Deeds.

resumption waived in respect of Lot 18.
ge: Vide Ex. Co. Min. 2353 dd 2. 9. 1930
min filed D.8./1930.

resumption waived in respect of a certain of the land hereby granted (approximately yards) adjoining Lot. No 18 Kenridge.
Ex Co Minute 2709 dd. 16.10.1931. with plan attached. filed D 8/1931 Reg. of Deeds.

Residence Site
1932 Rds 95 sq.
FERRED 5-5-1930 to Government of Union of South Africa.
No 3679

Plan of Part D.
625 sq. feet.
ERRED 3.10.1930 to Mrs. Francis, Widow.
No 8309

8 Sq Rds 115 Sq. ft.
ERRED 8-10-1930 to J. John Cunderson
No 8398

plot = 12 morg. 1694 sq. ft.
ERRED 5-12-1930 to Govt. of Union of
No 10.13 South Africa (Railways)

LOT. B of part D = 14753. Sq ft.
TRANSFERRED 16.7.1931 to Govt. of the Union of South Africa
No 5200. Railways & Harbours Adm.

LOT. 1 EDA of Part E
= 1 morgen 42360 Sq ft.
TRANSFERRED 7.8.1931 to R. M. Eda.
No 5752

LOT. 181 of Part A
= 4344 93 Sq feet
TRANSFERRED 18.4.1932 to J. T. Bolger.
No 2220.

Lot. P.H No 2 of Part E
= 1.0271 morgen.
TRANSFERRED 18.6.1934 to the Boksburg
No 5045. Lodges Plantations Ltd.

A Certificate of Registered Title has, in accordance with Section....., Act of 19 been substituted for this Deed in respect of.....
George Industrial Township
= 29.9925 morgen. dd 7/1932 No 246

Portion RY 2 of Plan E.
= 5.9810 morgen.

TRANSFERRED
GETRANSPORTEER

to the Government of the Union of South Africa in its Railways & Harbours Administration

Ptn. 58 = 1.0701 morgen

TRANSFERRED

25.8.1948 to G. McEwan MOCP.
No 19400.

hereof 3/2/1949 a.f. and H.E. Werth
1417. to Joint Est. a.f. (bw. de Kock)
Area of Part E
Sq feet.
TRANSFERRED 26.9.1954 to R A St Leger
No 8459.

LEASED TO the Joint Council of Europeans and Africans.
FOR 15 years by Deed of Lease
dated 6-3-1946 filed as
Lease No 6/1946 Registered
this 26th day of July 1946
Deeds Registry (Sgd) KALLMAN
Cape Town for ASST REGISTRAR

Portion 62 of Part E 145 SR 88 ST.
LEASED TO the Kerkraad of the
Dutch Reformed Mission Church
FOR 15 years BY DEED OF
LEASE DATED 5-
FILED AS Lease 4/48
REGISTERED THIS 4th DAY OF
September 1948.
Deeds Registry (Sgd) R LOUBSER
Cape Town for ASST. REGISTRAR.

Lot 8 Extension IV. Ptn of Part F = 1.3748 Morgen
TRANSFERRED 19.4.1937 to H.G. (No 3776)

Title has;
Section ..., Act . of 19.
this Deed in respect of.....

Roman Catholic Church
Mission School Site No 2. = 1.0286 morgen
TRANSFERRED 4.5.1937 (No 4[illegible])
to Prefect Apostolic Central Districts of
the Cape of Good Hope.

Transferred

G 7. FR Folio 111
Sgd. ?
Clerk in charge

Lot D.M.B. = 1.6650 morgen
TRANSFERRED 28.7.193[illegible] (No 7839) to Dm Breach married

is of Part E.
Prefect Apostolic of Central
for 15 years by notarial
ded 9 May 1933.
Sgd. 443 of 1933
This 21st day of July 1933
egistry Sgd.?
for Registrar.

Jewish Cemetery Site = 43617 Sq. ft.
TRANSFERRED 28/10/1938 to Trustees of George Hebrew Congregation
(No 11096)

Presbyterian Cemetery Site = 42950 Sq. ft.
TRANSFERRED 20.1.1939 (No 712) to Presbyte[illegible] of Port Elizabeth of
the Presbyterian Church of S.A.

1965
Lot Area = 147445 sq. ft.
SFERRED 29/12/1[illegible] (No 13615) To R.A. St. LEGER

Lot 7 - 1.0073 morgen
TRANSFERRED 21/3/1940 to S.E.M. St LEGER
(No 2612) (Mrs.)

...inder...

STRATION OF SERVITUDE.

No 13615 Dated 2.9.12.1938 the owner ...bors in title of the property thereby conveyed ...m carrying on any trade or business ... Saw Mill, Grist Mill and Certain ... connected with a timber factory ~~subject to~~

...all more fully appear on reference to ...deed of transfer ~~hereto~~.

(Sgd) H BEZUIDENHOUT

...38 ... Asst. Registrar of Deeds.

...resumption waived in respect of ... Vale Est. Co. min. 2519 dd. 11/6/1937. No 17/1937. (Sgd) J.A. BECKER ... Registrar of Deeds.

Resumption waived in respect of portions of the land hereby granted ...ated 45,000 sq.ft. Vale Est. Co. No 1389 dd. 23/5/1938 filed with Conveyancer. Sgd. J BEZUIDENHOUT for Registrar of Deeds.

...resumption waived in respect of portions of the land hereby granted ...ng 14745 sq. feet Vale Est. Co. min. ...dd. 20.10.1938. filed with Conveyancer ...938. (Sgd) J BEZUIDENHOUT for Registrar of Deeds.

...part F. = 94005 sq.ft.
...ion F. = 38561 sq.ft.

...FERRED 10/9/1942 No 541 to R.F. Leger.

...N E = 5.8810 mgn. to property ...

...FERRED 29/5/1946 to Govt. of Union ...

Rem. 55 part F = 83035 sq.ft.

TRANSFERRED GETRANSPORTEER 17/4/1949 No 5944 to A.E. Bennett.

Portion 56 of Farm E = 1.9303 mgn.

TRANSFERRED GETRANSPORTEER 15/4/1949 No 15201.

to Rear Apostolic of the Vicariate of Cape Town

PORTION 64 of Farm F = 61.0097 mgn.

LEASED to George Golf Club for 25 years by agreement Lease dated 3.9.1949 filed Br 1 No 5 Registered 24-11-1949 Deeds Office Cape Town Sgd. H Loveser for Asst Registrar.

Annex to P.T.D. part Rem F = 2.3166 mgn

GETRANSPORTEER 579/52 Asn. To A. Dormehl
TRANSFERRED No. 1 of 26 Restant. Remainder (Sgd) F. BRUNT Asst.-Registrateur. Asst. Registrar.

Rem 69 of Farm F = 2842 sq.ft.

GETRANSPORTEER 11/3/1951 Asn. Eastlake MA. Slater To
TRANSFER No 30515
(Sgd) F. BRUNT Asst.-Registrateur. Asst. Registrar.

64 ...

Portion 65 of Farm E = 4.1927 mgn.

GETRANSPORTEER 3572/1955 Asn. Educational Trustees for the Rhodesian District of Scotia
TRANSFERRED No. 2 2 of ... Restant. Remainder (Sgd) F BRUNT Asst.-Registrateur. Asst. Registrar.

Ref Farm = 1.0718 mgn.

GETRANSPORTEER 31/7/1962 Asn. Ca Robertson
TRANSFERRED No. 12063 Restant. Remainder (Sgd) T POTGIETER Asst.-Registrateur. Asst. Registrar.

Ef 3206 = 1·7204 Mgn.

GETRANSPORTEER 21. 5. 1963 Aan Kerkraad van de N.G.
TRANSFERRED To Gemeente te [illegible]
No. 9151 Restant
Remainder A. C. G. HUTCHINGS
Asst. Registrateur.
Asst. Registrar.

Ef 2428 = 54,400 Sq ft

GETRANSPORTEER 21/5/1963 Aan African Oxygen
TRANSFERRED To Ltd.
No. 9153 Restant
Remainder A. C. G. HUTCHINGS
Asst. Registrateur.
Asst. Registrar.

Plan 71 (Plan of Farm F) = 31·7101 Mgn.

GETRANSPORTEER 12-6-1953 Aan Govt. of the Union
TRANSFERRED To of South Africa
No. 8556 Restant
Remainder (Sgd) F BRUNT
Asst. Registrateur.
Asst. Registrar.

Ef 3137 = 1·0774 Mgn

GETRANSPORTEER 12.9.1956 Aan Govt. of the Union
TRANSFERRED To of South Africa
No. 13036 Restant
Remainder (Sgd) E.L. SMITH
Asst. Registrateur.
Asst. Registrar.

Ef [illegible] = 78833 [illegible]

GETRANSPORTEER 18-11-1957 Aan Est. late R.A.
TRANSFERRED To St. Leger
No. 16515 Restant
Remainder A. C. G. HUTCHINGS

GETRANSPORTEER 13/12/1957 Aan Trustees for Ord
TRANSFERRED To of Govt of Union
No. 13[illegible] Restant of South Africa
Remainder A. C. G. HUTCHINGS
Asst. Registrateur.
Asst. Registrar.

Ef 3420 meas. 28801 Sq ft.

GETRANSPORTEER 5/5/1961 Aan Govt. of Union
TRANSFERRED To of South Africa
No. [illegible] Restant
Remainder (Sgd.) F BRUNT
Asst. Registrateur.
Asst. Registrar.

Ef 3312 = 46500 Sq ft

GETRANSPORTEER 7/6/1961 Aan
TRANSFERRED To
No. 7553 Restant
Remainder (Sgd) F BRUNT
Asst. Registrateur.
Asst. Registrar.

Ef 3336 = 3·6628 Mgn.

GETRANSPORTEER 16/5/1962 Aan Govt of the Union
TRANSFERRED To of South Africa
No. 9263 Restant
Remainder (Sgd) F BRUNT
Asst. Registrateur.
Asst. Registrar.

Ef 2394 = 36894 Sq. Ft.

GETRANSPORTEER 19/4/1962 Aan Cape Kelp
TRANSFERRED To formerly Malan
No. [illegible] Restant Bros Standerton Coop
Remainder

Plan 28 [illegible] of Ef 4

LEASED TO Govt. of the Union of South [illegible]
from 1st January
31 Dec 1952 by
dtd. 31st Oct 19[illegible]
Lease No 1[illegible]
Registered 10 [illegible]
Deeds Registry [illegible]
Cape Town [illegible]

Portion 12 of Ef 464

Leased to South
Tuberculosis Assn
for 25 years
by Deed of Lease
2/12/1957 Pret
Lease No 24[illegible]
Registered 12-12
Deeds Registry
Cape Town for

Ef 3H44 = 1·4271

VERHUUR aan George R
LEASED to
vir
for 25 years from
deur H
by Deed
word as Land Lease No
Gen registreer hierdie
Registered this 30-11-
in die Land Lease Re
Dpt. 1. 2. 11.
AKTEKANTOOR,
DEEDS REGISTRY,
KAAPSTAD.
CAPE TOWN.
ASST. REG
ASST. R

= 17.2902 morgen

9-10-1964 Oaleé Court (Proprietary) Limited

Vorm

= 1.1206 morgen

9.-10-1964 H. B. Kriel (by Agent)

To (morgen)

Vorm

= 69626 sq feet

4. 3. 1965 Est. late H. J. Rauberheimer

Registrateur.
Asst. Registrar.

= 7.9604 morgen

30-11-1965 Aan Republiek van Suid Afrika

To

Restant
Remainder

Asst.-Registrateur.
Asst. Registrar.

Certificate of Registered Title No. 30295/ issued in terms of Sertifikaat van Geregistreerde Titel No. uitgereik kragtens

Sect. #3 Act No. #7/1937 In respect of the
Art. Wet No. ten opsigte van

ERF 3748 GROOT 24.6237 Mgn

Remainder
Restant

DEEDS OFFICE, AKTESKANTOOR, CAPE TOWN/KAAPSTAD.
30-11-1965

ASST. REGISTRAR. ASST.-REGISTREATEUR.

VERHUUR aan
LEASED to

vir
for

deur Huurkontrak gedateer
by Deed of Lease dated 19

weggelê
filed as

Geregistreer hierdie van
Registered this day of
19

AKTEKANTOOR, DEEDS REGISTRY, KAAPSTAD. CAPE TOWN.

ASST. REGISTRATEUR. ASST. REGISTRAR.

ERF 3448 = 65.2006 MGN

VERHUUR aan GEORGE GOLF CLUB
LEASED to

vir 25 YEARS FROM 1.7.1957
for

deur Huurkontrak gedateer 12.1.1964
by Deed of Lease dated

weggelê Land Lease No 29/1965.
filed as

Geregistreer hierdie 30-11-1965 van
Registered this day of
in the Land Lease Register
Vol 3 Fol 146 19

AMTEKANTOOR, DEEDS REGISTRY, KAAPSTAD. CAPE TOWN.

ASST. REGISTRATEUR. ASST. REGISTRAR.

ERF 4160 - 1.2886 MGN.

OETRANSPORTEER 12-2-1968 Aan M. A. D. NEURAY
TRANSFERRED To BRN POLICE

No. 2416

Restant
Remainder

VOOR FURTHER ENDORSEMENTS SEE
VIR VERDERE ENDOSSEMENTE SIEM Annexure hereto

ENDORSEMENT IN TERMS OF SECTION 11 (1) (b) OF ACT No. 37 OF 1955.
ENDOSSEMENT KRAGTENS ARTIKEL 11 (1) (b) VAN WET Nr. 37 VAN 1955.

A PORTION OF. SURVEYED

The herein-mentioned property ...ERF 3100 S/D ...
Die eiendom hierin vermeld

has been expropriated by the Railway Administration in terms of
is deur die Spoorwegadministrasie onteien kragtens artikel 3 (1)
section 3 (1) of Act No. 31 of 1950.
van Wet Nr. 37 van 1950.

Vide Notice of Expropriation No. G 3872/1967 Application d.d.
Vide Onteieningskennisgewing Nr. Aansoek en
29/9/1967 and plans filed Herewith CMR 896
planne geliasseer

DEEDS OFFICE,
AKTEKANTOOR,
CAPE TOWN.
KAAPSTAD.

SIGNED. C. H. Bosnoff
REGISTRAR OF DEEDS.
ASST. REGISTRATEUR VAN AKTES.

17. 5. 1968.

THE ABOVE ENDORSEMENT APPEARS ON THE DEEDS REGISTRY DUPLICATE HEREOF.

DEEDS REGISTRY
CAPE TOWN.

12 -2- 1968

ASST. REGISTRAR OF DEEDS.

Erf 4168 meas. 70,959-00 Sq ft

-7- -3- 1968

GETRANSPORTEER Aan Pacaltsdorp
TRANSFERRED To
Lenga Gedenkal Kerk

No. 16990 Restant
Remainder

Asst.-Registrateur/Asst. Registrar.

ENDORSEMENT IN TERMS OF SECTION 31 (6) OF ACT 1937 (AS AMENDED)
ENDOSSEMENT KRAGTENS ARTIKEL 31 (6) VAN WET 1937 (SOOS GEWYSIG)

THE PORTION OF
The herein-mentioned property ... AS DETAILED
Die eiendom hierin vermeld

has been expropriated by ADMINISTRATOR OF THE
is onteien deur die SECTION 130 ORDINANCE 1952
in terms of Sect 2 (3) OF ORD. 31/1952
kragtens

Vide Notice of expropriation No. ... d.d.
Vide onteieningskennisgewing Nr.

filed as exprop. caveat 6025/67 plans in d
geliasseer as onteieningskaveat planne in

Iliasseer Herewith.

~~DEEDS OFFICE,~~
~~AKTEKANTOOR,~~
~~CAPE TOWN.~~
~~KAAPSTAD.~~

~~REGISTRAR OF~~
~~REGISTRATEUR VA~~

① FROM UNREG ERF 3169 ± 0.5 L
② FROM REMAINDER ± 0.370 MGN
DEEDS REGISTRY. H. R
CAPE TOWN. 29. 8. 1967 ASST R

THE ABOVE ENDORSEMENT ON THE DEEDS REGISTRY HEREOF.

DEEDS REGISTRY
CAPE TOWN.

12 -2- 1968

ASST. REG

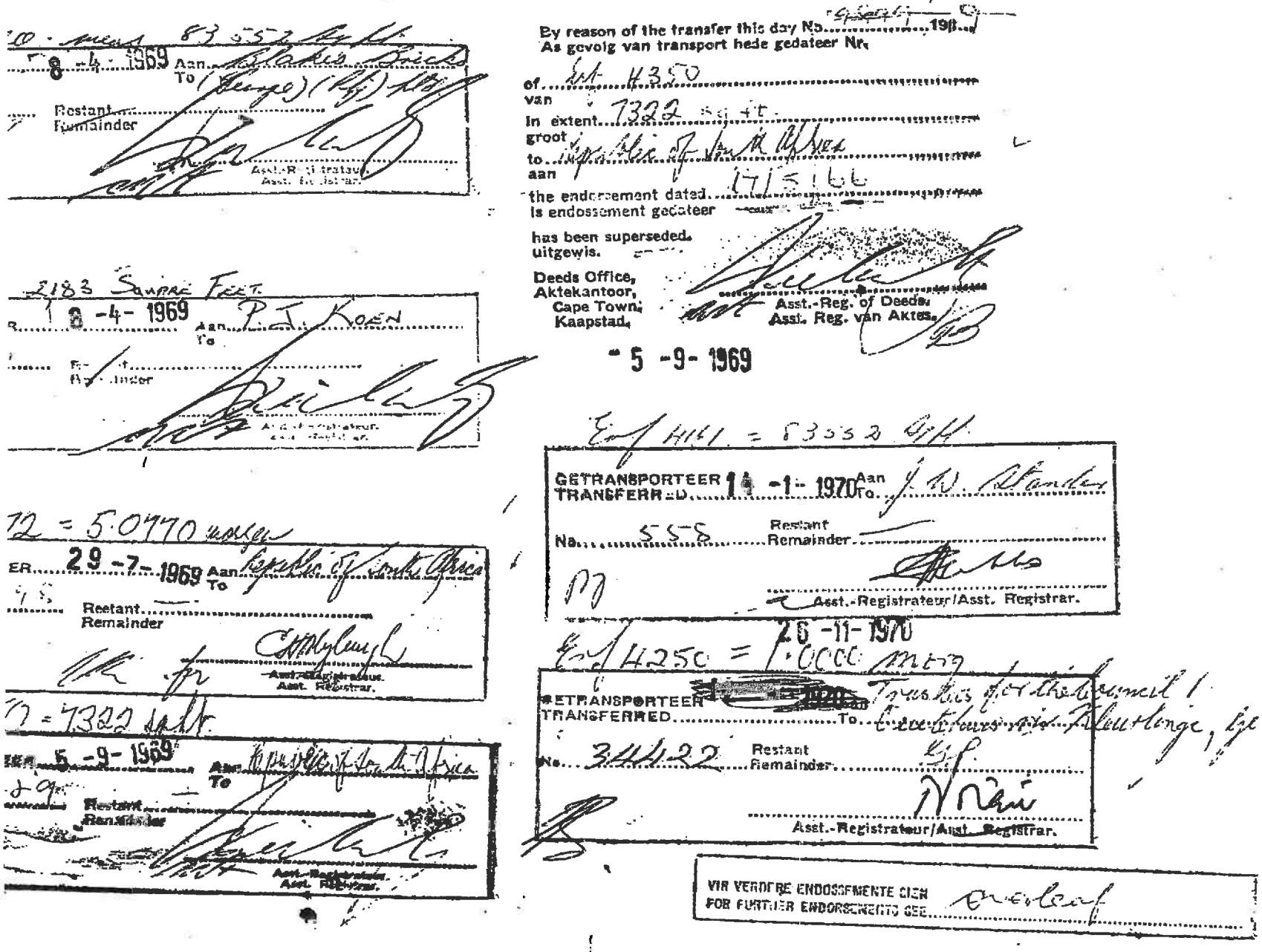
Erf 4162 = 83752 Sq ft

4 -7- 1968

GETRANSPORTEER Aan T. J. Hoop
TRANSFERRED To

No. 14111 Restant
Remainder

Asst.-Registrateur/Asst. Reg



Commonage to Erven Transfer Townships
Vol. 15 No. 15
(16)

4596 ... 9466 sq. metres

GETRANSPORTEER 17-6-1970 Aan To
No. 0758 Restant Remainder
Asst. Registrateur. Asst. Registrar.

4599 groot 1.2276 hektaar

GETRANSPORTEER 6-8-1970 Aan To Republiek van Suid-Afrika
No. 245 Restant Remainder
Asst. Registrateur/Asst. Registrar.

425 groot 1870 sq metres

GETRANSPORTEER 6-8-1970 Aan To
No. 9.16 Restant Remainder
Asst. Registrateur

4567 = 8.5653 Hek.

GETRANSPORTEER 23-9-1970 Aan To
No. 2742 Restant Remainder
Asst. Registrateur

Erf 4427 = 11235 sq.m

GETRANSPORTEER TRANSFERRED A.D. 8-10-1971 Aan To the New Apostolic Church (Africa)
No. 25246 Restant Remainder
Asst. Registrateur/Asst. Registrar

Erf 4568 = 1424 Sq m.
Erf 4260 = 33469 Metres

GETRANSPORTEER TRANSFERRED 24-5-1971 Aan To
No. 13425 Restant Remainder
Asst. Registrateur. Asst. Registrar.

Erf 4941 = 4104 Sq Metres

GETRANSPORTEER TRANSFERRED 8-10-1971 Aan To B. P. Nel & Company (George) (Proprietary) Limited
No. 7 Restant Remainder
Asst. Registrateur. Asst. Registrar.

ERF 5152 = 1412 sq m

GETRANSPORTEER TRANSFERRED 8-10-1971 Aan To
No. Restant Remainder
Registrateur. Registrar.

ERF 5117 = 1792 sq m

GETRANSPORTEER TRANSFERRED 8-10-1971 Aan To
No. Restant Remainder
Registrateur. Registrar.

ANNEXURE "J" TO DEEDS & RENTS VOL 15 No. 15

1. ERF 5139 meas 4400 Sq Metres

TRANSPORTEER TRANSFERRED ... -12- 1971 to R H MORRIS (PROPRIETARY) LIMITED

No. 32284

Asst. Registrar.

1. ERF 4936 meas. 4122 Sq. Metres
2. ERF 4937 " 4104 " " "

GETRANSPORTEER TRANSFERRED ... -12- 1971 C A ROBERTSON

No. 32286

Asst. Registrar.

ERF 4935 meas. 4122 Sq. Metres

GETRANSPORTEER TRANSFERRED ... -12- 1971 GILBORGE (PROPRIETARY) LIMITED

No. 32787

Asst. Registrar.

ERF 4975 meas 4275 Sq Metres

TRANSPORTEER TRANSFERRED ... 22- 12- 1972 E M BUKMANN

2279

Asst. Registrar.

1. ERF 4942 meas. 4104 Sq. Metres
2. ERF 4943 " 4122 " " "

GETRANSPORTEER TRANSFERRED ... 10-3-1972 THE REPUBLIC OF SOUTH AFRICA

No. T5386

Asst. Registrar.

ERF 4928 meas. 4122 Sq. Metres

TRANSPORTEER TRANSFERRED ... -12- 1971 to P S LIVANOS

T3286

Asst. Registrar.

ERF 4922 meas. 4292 Sq Metres
ERF 4923 " 4275 " " "

TRANSPORTEER TRANSFERRED ... 10-3-1972 KURLINK (PROPRIETARY) LIMITED

T3385

Asst. Registrar.

ERF 4938 meas 4104 Sq Metres

GETRANSPORTEER TRANSFERRED ... -12- 1971 to YORK MOTORS (PROPRIETARY) LIMITED

No. T37288

Registrar.

F 4946 meas 4104 sq. Metres

TRANSPORTEER 10-3-1972 Aan UNITED DAIRIES
TRANSFERRED ..... Co-operative Limited.
III 5387 Restant Remainder
Asst.-Registrateur/Asst. Registrar.

ERF 5314 meas. 8217 sq. Metres

TRANSPORTEER 1-12-1971 Aan EVERITE LIMITED.
TRANSFERRED ..... To
X 32789 Restant Remainder
Asst.-Registrateur/Asst. Registrar.

ERF 4947 meas. 4122 sq. Metres

TRANSPORTEER 9-12-1971 Aan C.V.G. BEUKES
TRANSFERRED ..... To
XI 32790 Restant Remainder
Asst.-Registrateur/Asst. Registrar.

ERF 5310 meas. 8024 sq. Metres
" 5311 " 8010 sq. Metres
" 5312 " 7885 " " "

TRANSPORTEER 1-12-1971 Aan PLATE GLASS PROPERTIES
TRANSFERRED ..... To (GEORGE) (PROPRIETARY)
X 13279 Restant LIMITED
Asst. Registrar.

ERF 5318 meas. 8388 sq. Metres

GETRANSPORTEER 7-12-1971 Aan PAY AND TAKE
TRANSFERRED ..... To PROPERTIES
No. XIII 32792 (GEORGE) (PROPRIETARY)
LIMITED
Asst.-Registrateur, Asst. Registrar.

Leased area = 8251 sq. Metres
Society for the Prevention
George Municipality to annul.
20 years from 13-10-1968
4-6-71
Private Lease (39) /72
12-5-1972
72.

ERF 5316 meas. 3,2777 Hectares

GETRANSPORTEER 10-3-1972 Aan THE STELLENBOSCH
TRANSFERRED ..... To FARMERS' WINERY
LIMITED
No. 9888 Pty.
Asst.

FOR REGISTRAR OF DEEDS
VERWYSING ENDORSEMENTS
ANNEXURE B

(31)
2

The following endorsement dictated appears on the Deeds Office copy of the Deed.

ENDORSEMENT IN TERMS OF SECTION 37 (6) OF ACT No. 47 OF 1937 (AS AMENDED)
ENDOSSEMENT KRAGTENS ARTIKEL 37 (6) VAN WET No. 47 VAN 1937 (SOOS GEWYSIG)

PORTION OF
the herein mentioned property mors ± 2,44 HA.
which is hereby expropriated by RAILWAY ADMINISTRATION
in terms of Sec. 37 Act 37/56
under Notice of expropriation No. 739/72 d.d. 21/7/72
Onteieningskennisgewing No. 739/72 plans in duplicate filed
registered as exempted. caveat planne in twevoud ge-
registreer as uitsonderings kaveat
at CAPE TOWN
15-9-1972
DEEDS OFFICE,
DEEKANTOOR,
KAAPSTAD.
REGISTRAR OF DEEDS.
REGISTRATEUR VAN AKTES.

GETRANSPORTEER 27-04-1973 Aan
TRANSFERRED To
No. T0447 Restant
Remainder
Asst.-Registrateur.
Asst. Registrar.

ERF 5971 MORS. 3044 Sq. METERS.
GETRANSPORTEER 31-07-1973 Aan AFRICAN OXYGEN Limited
TRANSFERRED To
No. 20018 Restant
Remainder
Asst.-Registrateur/Asst. Registrar.

1) ERF 5307 MORS 7558 Sq. METERS
2) ERF 5305 MORS 7003 Sq. METERS (GEORGE)
GETRANSPORTEER
TRANSFERRED 31-07-1973 Aan SALSA PROPERTIES (PTY) LTD
To
No. 20020 Restant
Remainder
Asst.-Registrateur/Asst. Registrar.

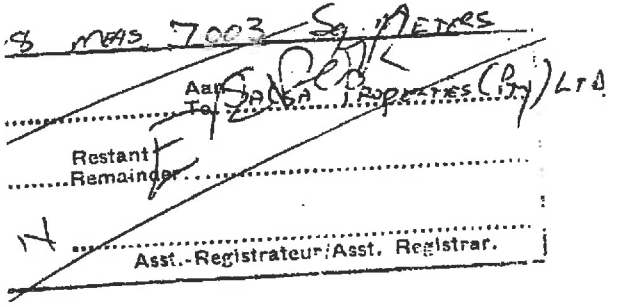
1) 4 004 = 4132 39 MET
GETRANSPORTEER
TRANSFERRED
No. 29033 Aan J. H. GREAVES
To
Restant
Remainder
Asst.-Registrateur.
Asst. Registrar.

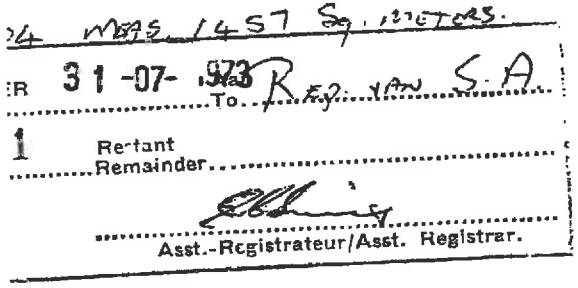
1) 4 926 = 4131 39 MET.
2) 4927 = 4132 39 MET
GETRANSPORTEER
TRANSFERRED
No. 29034 Aan PAILAN PROPERTIES
To
Restant
Remainder
Asst.-Registrateur.
Asst. Registrar.

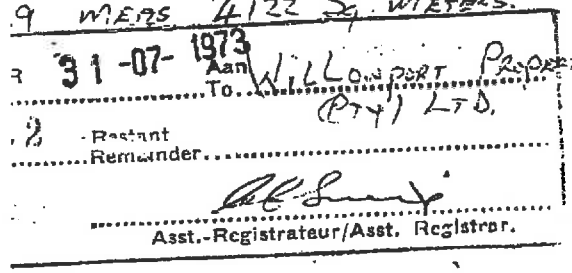
OVERLEAF

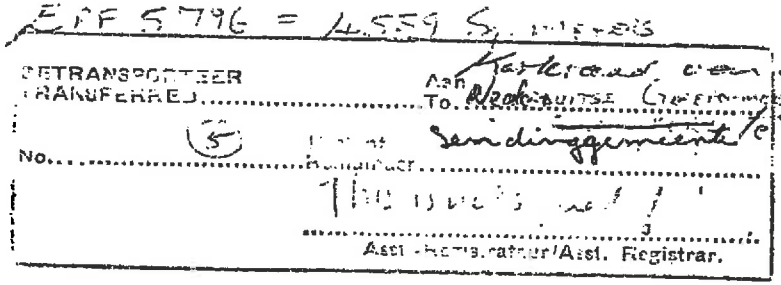
14

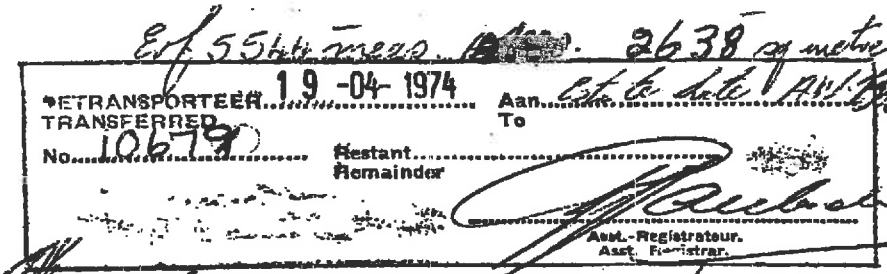
TRANSFER TO GEORGE
QUIT 15/16

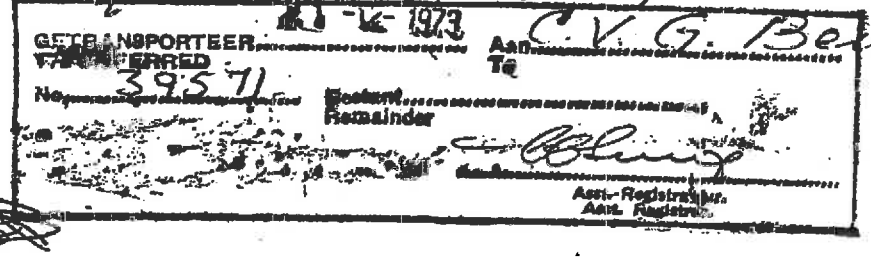

MAS 7003 Sq. METERS
Aan To SANLA PROPERTIES (PTY) LTD
Restant Remainder
Asst.-Registrateur/Asst. Registrar.


MAS 1457 Sq. METERS.
31-07-1973
To R.E.J. VAN S.A.
Restant Remainder
Asst.-Registrateur/Asst. Registrar.


MEAS 4122 Sq. METERS.
31-07-1973 Aan
To WILLOWPORT PROPERTIES (PTY) LTD.
Restant Remainder
Asst.-Registrateur/Asst. Registrar.


ERF 5796 = 4559 Sq. METERS
GETRANSPORTEER TRANSFERRED
Aan To
No.
Asst.-Registrateur/Asst. Registrar.


Erf 5544 MEAS. 2638 sq metres.
GETRANSPORTEER 19-04-1974 Aan To
TRANSFERRED
No. 10679
Restant Remainder
Asst.-Registrateur. Asst. Registrar.


Erf 4948 = 4237 M²
-4- 1973 C.V.G. Bentes.
GETRANSPORTEER TRANSFERRED
Aan To
No. 39571
Restant Remainder
Asst.-Registrateur. Asst. Registrar.

ERF 5306 mea

GETRANSPORTEER 10 -3- 1

TRANSFERRED

No. T 5357 Reëant

ERF 4934 meas 4104 sq. meters

GETRANSPORTEER 10 -3- 1972

TRANSFERRED

V. F. KONSTRUKSIE (EIENDOMS) BEPERK

No. T 5356 Reëant

ERF 4945 meas 4254 sq. meters

GETRANSPORTEER 10 -3- 1972

TRANSFERRED

B. SAUERMAN AND ANOTHER

No. T 5371

ERF 5137 mea

GETRANSPORTEER 12 -5-

TRANSFERRED

No. 10625 Reëant

$

ERF. 5140 m

GETRANSPORTEER 12 -5-

TRANSFERRED

No. 10626 Reëant

$

695

ERF 5135 mens. 4462 Sq Metres

GETRANSPORTEER 12 -5- 1972 DE FROST (GEREKE KERKRAAD (MILITARY) LIMITED

No. 10627

ERF 4924 mens. 4292 Sq. Metres

GETRANSPORTEER 12 -5- 1972 J. C. SKRYNWERKERS (ELEMOMIS BEPERK

No. 10628

ERF 4428 mens 1592 Sq Metres

GETRANSPORTEER 6 -6- 1972 THE TRUSTEES OF THE CALVARY CHURCH (COLOURED ASSEMBLY OF THE PENTECOSTAL HOLINESS CHURCH

No. 12774

ERF 5340 =

GETRANSPORTEER 20-0-1

No. 14935 Restant... Remainde

ERF 4924 = A

GETRANSPORTEER 8 5

No. 22917 Restan Remai

ERF 5546

GETRANSPORTEER

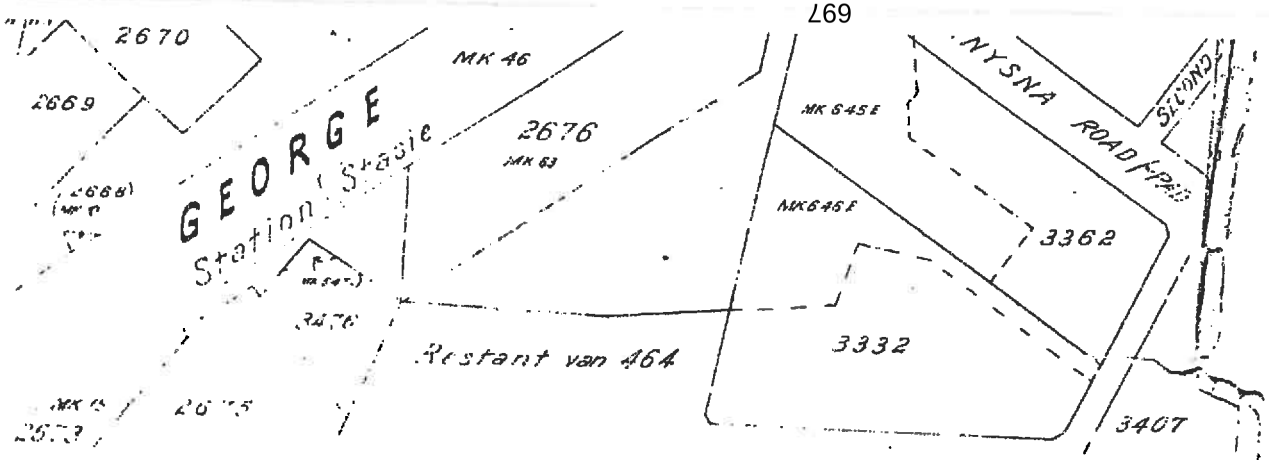
No. 22018

ERF 5319 = 0.3

GETRANSPORTEER 3805 15

No.

696



SCALE 1:5000
SKAAL

Metres/Meter

Plan showing land coloured red, to be expropriated by the Railway Administration, being
Plan wat grond (rooi gekleur) aantoon wat deur die Spoorwegadministrasie anteien moet word synde

portion of *Remainder of*
'n gedeelte van Restant van *Erf 464 George.*

Situate in *the Municipality and Administrative District of* *GEORGE* *Province of Cape of Good Hope.*
Gelee in *die Munisipaliteit en Administratiewe Distrik* *Provinsie Kaap die Goeie Hoop.*

Owner *Municipality of*
Eienaar *Munisipaliteit van* *George*

Title: *George Quits. 15:15*
Titel No *George Erfpag*

Diagram *B. 1293/1920*
Kaart No

Drawn by Geteken deur	G.J.L.
Checked by Nagesien deur	H.J.S.
Approved by Goedgekeur deur	
Amended/Gewysig	

Area (Approximately) *2,44* *hectares*
Grootte (ongeveer) *hektaar*
Compiled from *ODN. 133.C.1069* *and Diagram data.*
Saamgestel uit *en Kaartgegewens*

Date Datum *17·6·1971*

Noted in Deeds Office.
In aktekantoor aangeteken.

Land Surveyor
Landmeter

Erf 6586 = 12,8484 hektaar

GETRANSPORTEER/TRANSFERRED 11-03-1974 AAN/TO DIE HOSPITAALTRUSTEES.

NO. 6137/1974

78(1)

ENDORSEMENT IN TERMS OF SEC ~~65(1)~~ OF ACT 47/1937 ✓

By REASON OF EFFLUXION of TIME, LEASE No. 4/1948 DATED 5 JUNE 1948 AND REGISTERED ON 3 SEPTEMBER 1948 HEREIN, HAS ~~expired~~ terminated

Application Filed WITH MISC. 196/74

DEEDS Registry
Cape Town

ASST. REGISTRAR of DEEDS

Erf 5309 = 7673 vk. meter

GETRANSPORTEER/TRANSFERRED 3-04-1974 AAN/TO J. J. Watson

NO. 9191 Restant/Remainder

Asst. Registrar

DEEDS REGISTRY, CAPE TOWN. ~~ASST. REGISTRATEUR. ASST. REGISTRAR~~ 1st REGISTRAR OF DEEDS

Certificate of Registered Title No T33967/74 issued in terms of
Sertifikaat van Geregistreerde Titel No ..... uitgereik kragtens
Sect. 43 Act No. 47/37 in respect of the
Art ..... Wet No ..... ten opsigte van .....
Ef 4351 measg 61,0684 HA

.....

Remainder
Restant .....

DEEDS OFFICE,
AKTESKANTOOR,
CAPE TOWN/KAAPSTAD.
8-10-1974

.....
ASST. REGISTRAR.
ASST.-REGISTRATEUR.

Applies to Ef 4351 measg 61,0684 HA

In terms of the ... of Act
Kragtens die ... van Wet 2 A (2)

Fig. No. 481 61 restricted ... subject(s) to ... zoerwaarde(s) 1 c 5

have ceased to apply / nie meer van toepassing is nie / is hereby cancelled.
nie meer van toepassing is nie / word hiermee gekanselleer nie.

Minister's consent ... / Ministeriële toestemming ... MISC 324/74

.....
REGISTRAR OF DEEDS.
REGISTRATEUR VAN AKTES.

DEEDS REGISTRY,
AKTESKANTOOR,
8-10-74

DELETE WHAT IS NOT NECESSARY.
HAAL DEUR WAT NIE NODIG IS NIE.

No. T. 174 Restant Remainder

Asst. Registrateur/Asst. Registrar

Erf 5317 groot 1,7657 HA.

GETRANSPORTEER 5 -06- 1974 Aan To Outeniqua Cattlers (Proprietary) Limited.
TRANSFERRED

No. T. 15962 / 174 Restant Remainder

Asst. Registrateur/Asst. Registrar

Erf 5541 meas 7448 s.m.

GETRANSPORTEER 0 -08- 1974 Aan To Rosa-Rest (Pty) Ltd.
TRANSFERRED

No. T 29181 / 174 Restant Remainder

Asst. Registrateur/Asst. Registrar

Erf 5313 meas 8432 M²

GETRANSPORTEER 8 -11- 1974 Aan To Blue Jay Investments
TRANSFERRED

No. T 40174 / 1 Restant Agency Proprietary Limited
Remainder

Asst. Registrateur/Asst. Registrar

Vide ontleningskennisgewing / filed as expron. caveat / geliasseer as ontleenings caveat / laisseer hereunto 1169/74 ..... plans in duplicate filed / planne in tweevoud ge-

DEEDS OFFICE, AKTEKANTOOR, CAPE TOWN. KAAPSTAD. 8-10-1974

REGISTRAR OF DEEDS. REGISTRATEUR VAN AKTES.

43765

Certificate of Registered Title No. T ..... /74 issued in terms of
Sertifikaat van Geregistreerde Titel No. ..... uitgereik kragtens
Sect. 43 Act No. 47/37 In respect of the
Art. ..... Wet No. ....., ten opsigte van .....
Erf 6473 groot 17,2970 HA.

Remainder
Restant .....

DEEDS OFFICE, AKTEKANTOOR, CAPE TOWN/KAAPSTAD. 27-12-1974
ASST. REGISTRAR. ASST.-REGISTRATEUR.

Applies to erf 6473 measg 17,2970 HA.

In terms of the provisions of section 2 (A) (2) of Act
Kragtens die bepalings van Artikel ..... van Wet
No. 48/44 restrictions contained in condition(s) 1 + 5
No. ..... is die restriksies vervat in voorwaarde(s) .....
have ceased to apply to the property herein described.
nie meer van toepassing op die eiendom hierin genoem nie.

Minister's consent filed with
Minister se toestemming geliasseer by ..... MTSC 1/75

DEEDS REGISTRY, AKTEKANTOOR, 27-12-1974
REGISTRAR OF DEEDS. REGISTRATEUR VAN AKTES.

DELETE WHAT IS NOT NECESSARY.
HAAL DEUR WAT NIE NODIG IS NIE.

Exhibit A9 (Contd.)

Asst. Registrar.

Asst. Registrar

14020

Registration No. T 14020/75

No. ..... Remainder

A. [illegible]
Asst.-Registrateur.
Asst. Registrar.

38771

Certificate of Registered Title No. ..... /75 issued in terms of
Sertifikaat van Geregistreerde Titel No. ..... uitgereik kragtens
Sect. 43 Act No. 47/37 in respect of the
Art. ..... Wet No. ..... ten opsigte van .....
ERF 5845 MEAS 48, 4961 H.A.

.....

Remainder
Restant .....

DEEDS OFFICE,
AKTESKANTOOR,
CAPE TOWN/KAAPSTAD.

W. Beaton
ASST. REGISTRAR.
ASST.-REGISTRATEUR.

9-12-1975 ..... 19 .....

Erf 6474 groot 5227 vk mr

GETRANSPORTEER 19-11-75 Aan ..... Die Afrikaanse
TRANSFERRED ..... To ..... Christelike Vrou-Vereniging.

No. T35905/75 Restant
Remainder .....

[signature]
Asst.-Registrateur/Asstt Registrar.

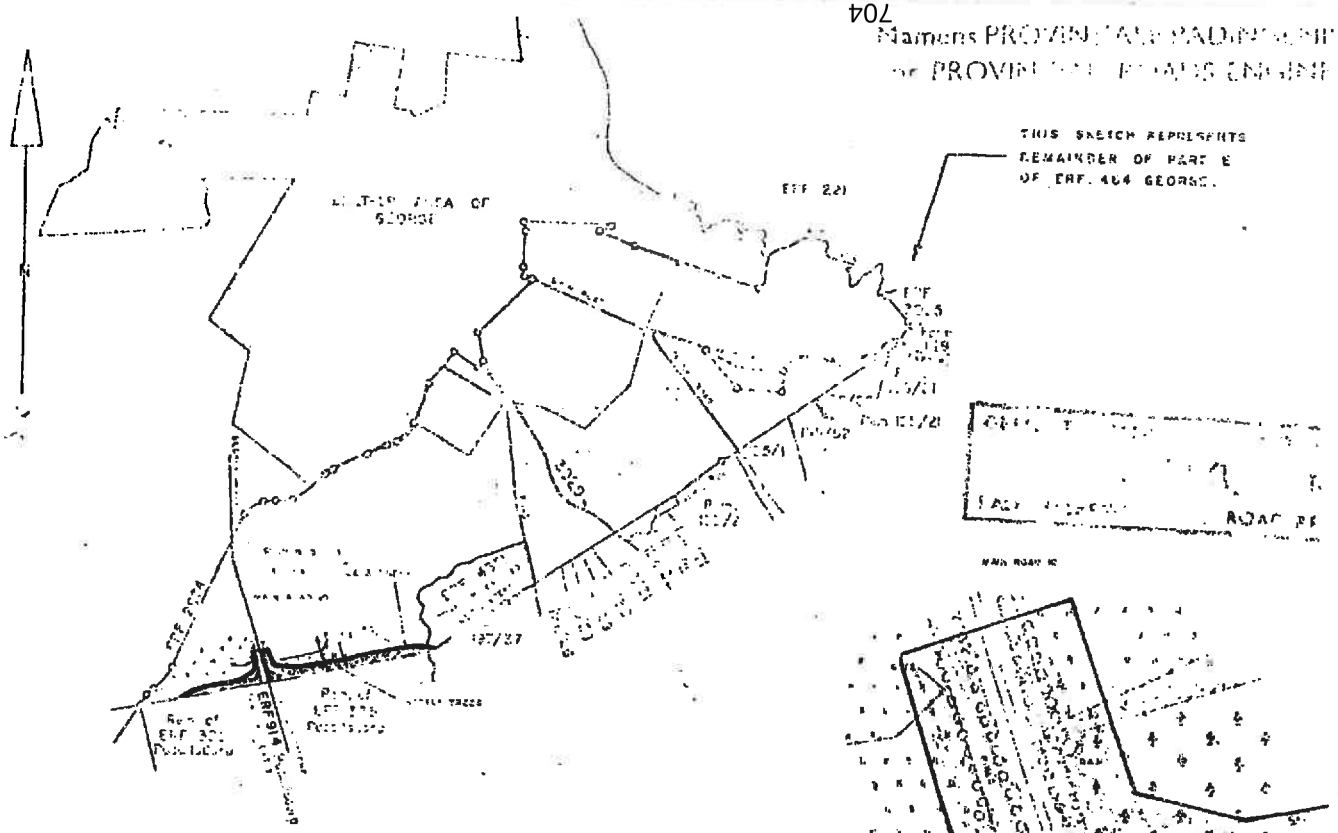
Erf 6240 = 2154 vk M.

GETRANSPORTEER 19-3-1976 Aan H.C. Barnard.
TRANSFERRED ..... To .....

No. T6095/76 Restant
Remainder .....

[signature]
Asst.-registrateur/Asst. Registrar

Namens PROVINSIALE PADINSPEKTEUR
or PROVINCIAL ROADS ENGINEER



SKAAL / SCALE 1:70 000

SERTIFIKAAT Kragtens Regulasie 57 van die Registrasie van Aktes Wet No. 47 van 1937.

Hierby sertifiseer ek dat die bovermelde, RODE [illegible] ur, van eiendom hierin [illegible] die Kaapse Provinsiale Administrasie [illegible] geneem is.

31 JUL 1974
Datum

[illegible] PADINSPEKTEUR

T.G.
4/12/73.

SKAAL / SCALE 1:7 000

INSET

48/61 ..... Van Wet

.....) 1 and 5

MISC. 1108 1975

- 9 -12- 1975

Dep. ... ARTES.

Cf 7362. groot 1506 ekm.

...TRANSPORT
TRANSFERRED 25 -02- 1977 Aan To M.C. Barnard

No. 3441 / 3443 Restant Remainder

Asst.-registrateur/Asst. Registrar

FOR FURTHER ENDORSEMENTS SEE VIR VERDERE ENDOSSEMENTE SIEN Page 25

in so far as it affects Erf 7419 George, have been cancelled.

Consent filed as BC 10680. 1/1977

Deeds Registry
Cape Town

Assistant-Registrar of Deeds.

The following endorsement dated 7-6-77 appears on the DC copy hereof.

Registration of Servitude/Registrasie van Serwituut

The within described land is subject to a servitude with regard to apportionment of water in terms of an Order of the Water Court
Die binnegemelde grond is onderhewig aan 'n serwituut met betrekking tot verdeling van water in terme van 'n bevel van die Waterhof

(Water Court District No. W10/76 dated 5-6-77 as will more fully appear on reference to the copy of said Order annexed hereto.
(Waterhof distrik No.....) gedateer.....soos meer volledig sal blyk uit gemelde bevel, waarvan afskrif hiervan geheg is.

filed as K493/77S

Deeds Registry/Aktekantoor,
Cape Town/Kaapstad,
.....19.....

for REGISTRAR/namens REGISTRATEUR.

VIR ENDOSSEMENTE KYK BLADSY 26 ET SEQ.
FOR ENDORSEMENTS SEE PAGE 26 ET SEQ.

Certificate of Registered Title No.
Sertifikaat van Gereglistreerde Titel No. ..... issued in terms of
uitgereik kragtens
Sect. 43 Act No.
Art. ..... Wet No. 47/37. In respect of the
ten opsigte van .....
Erf 6828 Grant 5, 554 L.H.
.....
Remainder
Restant .....

DEEDS OFFICE
AKTESKANTOOR
CAPE TOWN/KAAPSTAD.
7 07 1977

ASST. REGISTRAR.
ASST.-REGISTRATEUR.

Certificate of Registered Title T 15917 /1977
Sertifikaat van Gereglistreerde Titel
issued in terms of sect. 43 Act 47/37
uitgereik kragtens art. ..... Wet .....
in respect of the
ten opsigte van Erf 6732 Grant
6, 5168 Plattekloof
Remainder
Restant .....

DEEDS OFFICE
AKTESKANTOOR
CAPE TOWN/KAAPSTAD
30 06 1977

Asst. Registrar
Asst.-registrateur

VIR ENDOSSEMENTE KYK BLADSY
FOR ENDORSEMENTS SEE PAGE 27 ET SEQ.

cancelled.
Consent filed as BK 12245 1977.

AKTEKANTOOR,
KAAPSTAD.
DEEDS REGISTRY,
CAPE TOWN.

20 -06- 1977

ASST. REGISTRAR OF DEEDS

Certificate of Registered Title No. T 16674/77 issued in terms of
Sertifikaat van Geregistreerde Titel No. uitgereik kragtens
S. 43 Act No.
Art. 43 Wet No. 47/1937 in respect of the
Erf 7419 meas 36,0850 ha ten opsigte van

Remainder
Restant

DEEDS OFFICE,
AKTESKANTOOR,
CAPE TOWN/KAAPSTAD.
27-07-1977 19

ASST. REGISTRAR,
ASST.-REGISTRATEUR.

Certificate of Registered Title
Sertifikaat van Geregistreerde Titel T 16673 /1977
issued in terms of sect.
uitgereik kragtens art. 43 Act Wet 47/1937
in respect of the
ten opsigte van Erf 6822 meas 2,4746 ha

Remainder
Restant

DEEDS OFFICE
AKTESKANTOOR
CAPE TOWN/KAAPSTAD
27-07-1977 19

Asst. Registrar
Asst.-registrateur

VIR ENDOSSEMENTE SIE READY
FOR ENDORSEMENTS SEE PAGE ..... ET SEQ

nie meer van toepassing op die eiendom hierin genoem nie.

Minister's consent filed with
Minister se toestemming geliasseer by RC 16634 - 77.

DEEDS REGISTRY;
AKTEKANTOOR,
Folio 5 18 -08- 1977

REGISTRAR OF DEEDS.
REGISTRATEUR VAN AKTES.

DELETE WHAT IS NOT NECESSARY.
HAAL DEUR WAT NIE NODIG IS NIE.

Erf 7479 meas 1657 sq metres

GETRANSPORTEER
TRANSFERRED 18 08 1977 Aan George & Knysna Herald
To (Proprietary) Limited

No. 1
20862 Restant
Remainder

A.-Registrateur.
Asst. Registrar.

ERF 6231 GROOT : 9112 m².

GETRANSPORTEER
TRANSFERRED Aan DIE HOSPITAALTRUSTEES.
To

No. 1 /77 Restant
Remainder

Asst.-Registrateur/Aset. Registrar.

FOR FURTHER E..DORSEMENTS SEE
VIR VERDERE END..EMENTE SIEN Page 2A.

ENDORSEMENTS SEE
ENDOSSEMENTS SIEN

Meneer

OPHEFFING VAN DIE STAAT SE HERNEMINGSREG TEN OPSIGTE VAN DIE RESTANT VAN DIE MEENTGROND (ERF 464) GEORGE : U 10/6/4

Die ontvangs van u skrywe van 20 April 1988 tesame met u tjek vir die bedrag van R16 245,00 word hiermee erken. Ingevolge sertifikaat van restant 14/1988 wat sedertdien vanaf die Landmeter-generaal : Kaap ontvang is, is die grootte van die restant van die meentgrond (Erf 464) 1803,1227 hektaar soos op 11 Maart 1988 waarby Erf 13387, gedeelte van Erf 464, groot 10,2000 hektaar, wat vir die doeleiendes van die Outeniqua proefplaas herneem is maar nog in naam van die Staat geregistreer staan te word, ingesluit is. Die restant van die meentgrond ten opsigte waarvan die Staat se hernemimgsreg gevolglik rojeer moet word beloop dus 1792,9227 hektaar en bereken teen R5,00 per hektaar of gedeelte daarvan is die vergoedingsbedrag slegs R8965,00. 'n Skatkisorder vir R7280,00 te veel betaal gaan derhalwe hiermee saam.

Die nodige toestemming vir die opheffing van die Staat se hernemingsreg oor die restant van die meentgrond is ook aangeheg.

Die uwe

DIREKTEUR-GENERAAL
OPENBARE WERKE EN GRONDSAKE

MUNISIPALITEIT GEORGE
ONTVANG
25 MAY 1988
ONT ERKEN
ANTWOORD

1. Stem hiermee toe kragtens artikel 2A(1) van die Wet op die Beskikking oor Staatsgrond, 1961 (Wet 48 van 1961), tot die rojering van voorwaardes 1 en 5 soos vervat in grondbrief gedateer 15 Junie 1922 (George Erfpagte volume 15 no 15) ten opsigte van:

   Die restant van Erf 464 George, geleë in die munisipaliteit en administratiewe distrik George, groot as sodanig 1803,1227 hektaar met die uitsluiting van Erf 13387 gedeelte van Erf 464 George geleë in die munisipaliteit en administratiewe distrik van George, groot 10,2000 hektaar soos voorgestel en omskryf op kaart L G 516/87 wat nog geregistreer staan te word.

2. Magtig hierby die Registrateur van Aktes, Kaapstad kragtens artikel 2A(2) van voornoemde Wet om die rojering op die titelbewys aan te teken.

ALDUS GEDOEN en GETEKEN te PRETORIA op hierdie 20ste dag van Mei 1988.

.....

P.P. MINISTER VAN MANNEKRAG EN VAN OPENBARE WERKE EN GRONDSAKE
(Volmag : Item C.4(i) van Bylae 2)

REGISTRATEUR VAN AKTES
KAAPSTAD

Dept.
714

Geagte Meneer

MUNISIPALE TITELAKTES

Jare gelede is reëlings met die Akteskantoor getref om 'n toonbank lêer Nr.662 oop te maak ten opsigte van sekere van die Munisipaliteit se titelaktes.

Die doel van 'n toonbank lêer is dat dit nie nodig is om die Munisipaliteit se titelakte met elke transport van 'n stuk grond daaruit met daardie transport in te dien nie maar daar word net verwys na die toonbank lêer. Op dié manier word transporte van die Munisipale titelakte bespoedig.

Die Akteskantoor het egter nou besluit om alle toonbank lêers te sluit en ons stuur u hiermee die betrokke toonbank lê Nr 662 wat die volgende inhoud het:-

1. Gesertifiseerde afskrif van George Erfpagte Nr 15; — (1)
2. Transportakte Nr 6712/1941;
3. Transportakte Nr T1005/1938.

Geliewe veilige ontvangs te erken op die aangehegte afskrif van hierdie skrywe.

Die uwe
RAUBENHEIMERS ING

Per:

TIM BYRNE

MUNICIPALITY OF GEORGE
MUNICIPALITEIT GEORGE
Dept Administration
Dept Administrasie
1997 -10- 23
Dept.

(1) 39

Gestig • Established 1907
Raubenheimers Ing / Inc • Reg No 93/01742/21

Direkteure / Directors T S Byrne • T J Nel BA B Iur • W M Luttig B Comm LLB • C G Pienaar B Iur LLB LLM • R Engelbrecht BA LLB
Konsultant / Consultant J N Raubenheimer BA LLB

Cathedraalstraat 60 Cathedral Street
Posbus • PO Box 21 George 6530
Docex 1 George
Suid-Afrika / South Africa

☎ (044) 873 2043
FAX (044) 874 4516
Na ure • After hours 082 490 2966/7
Internet http://www.george.co.za/rb
e-Mail raubenheimers@pixie.co.za

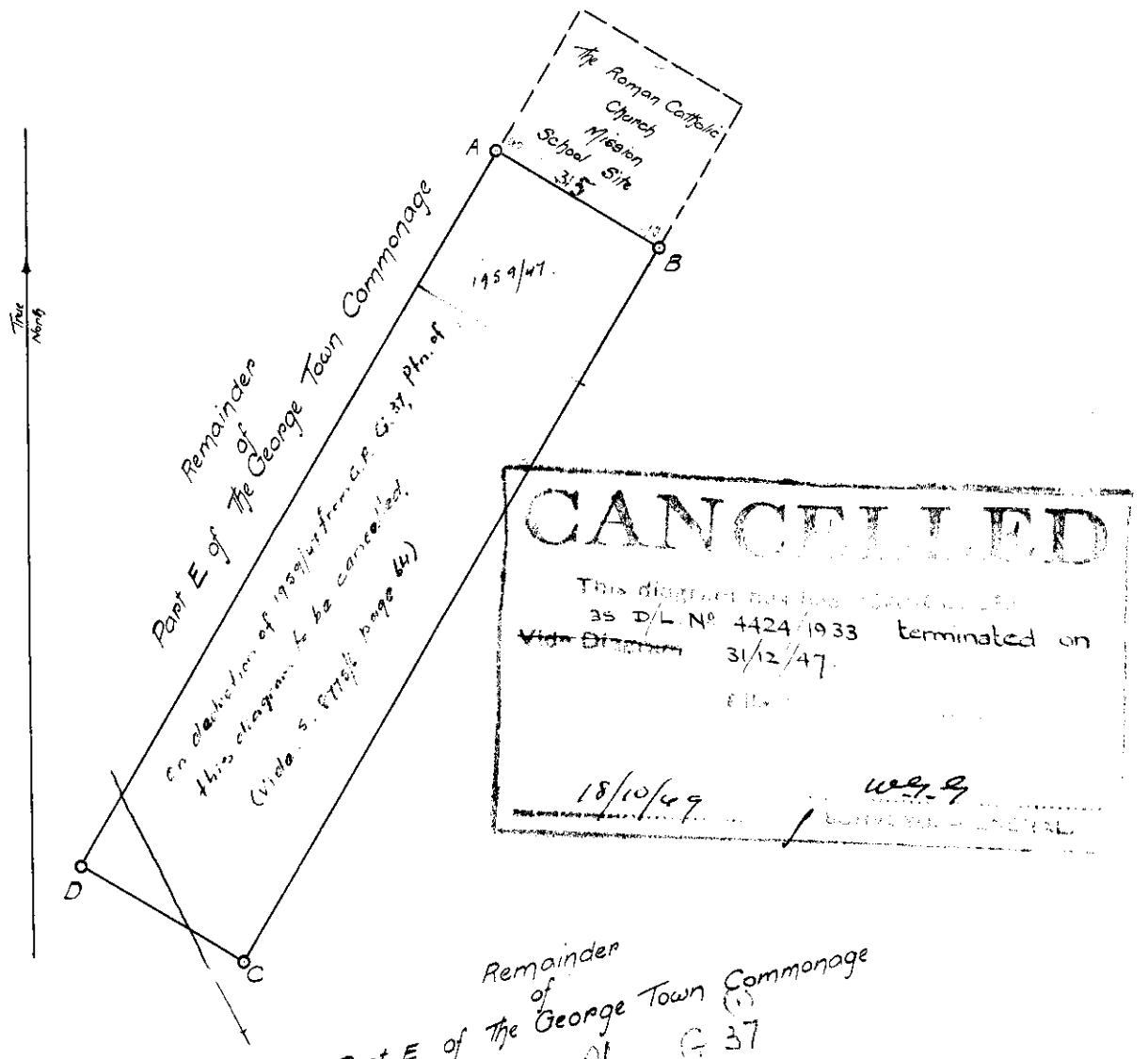
A3698/1931.

Approved for Purpose of Lease

L. M. Walton

p. Surveyor-General

7 - OCT 1931



SIDES Cape Feet		ANGLES OF DIRECTION		CO-ORDINATES y	x
AB	315·0	300 · 45 · 0	A	− 2282·4	+ 1110·7
BC	1371·4	30 · 45 · 0	B	− 2553·1	+ 1271·8
CD	315·0	120 · 45 · 0	C	− 1851·9	+ 2450·4
DA	1371·4	210 · 45 · 0	D	− 1581·2	+ 2289·3

Description of Beacons.

- A. 18" Iron peg, 5/8 diameter.
- B. 18" " , 5/8 "
- C. Planted Stone 8"×6", centre point marked by 18" Iron peg (5/8" diameter) alongside.
- D. Planted Stone 6"×6", centre point marked by 18" Iron peg (5/8" diameter) alongside.

The figure A B C D ——— *represents* 4 *Morgen* 8639 *Square Feet of land, called* The Roman Catholic Church Mission School Site Extension ——— *portion of* Part E of The George Town Commonage *situate in the DIVISION of* George ——— *PROVINCE of CAPE of GOOD HOPE.*

Surveyed in May 1929 *by me for the purpose of a lease*

T. J. Pascual

Land Surveyor.

This diagram is annexed to ~~Transfer~~ *Deed No.* *dated* *in favour of*

Registrar of Deeds.

The original diagram is No. 1293, 1920 *annexed to Title Deed* ~~No.~~ George Qts. 15.15. *dated* 15·6·1922 *in favour of* The Council of the Municipality of George.

over erf 4614 George.

L. 1027/1931

S 8775/6

FORM B.

OFFICE COPY

K[illegible]

No. 8591/60

SIDES Cape Feet		ANGLES OF DIRECTION		SYSTEM L° 23° CO-ORDINATES y	x
		Constants		+100 000.0	+11900 000.0
AB	154.4	355.32.00	A	+62234.4	+36653.5
BC	194.1	335.25.40	B	+62222.4	+36807.5
CD	318.0	68.55.30	C	+62141.7	+36984.0
DE	146.2	163.08.20	D	+62438.4	+37098.4
EF	120.0	174.10.00	E	+62480.8	+36958.5
FG	72.3	81.53.30	F	+62493.0	+36839.1
GH	166.9	176.15.20	G	+62564.6	+36849.3
HA	342.4	265.05.30	H	+62575.5	+36682.8

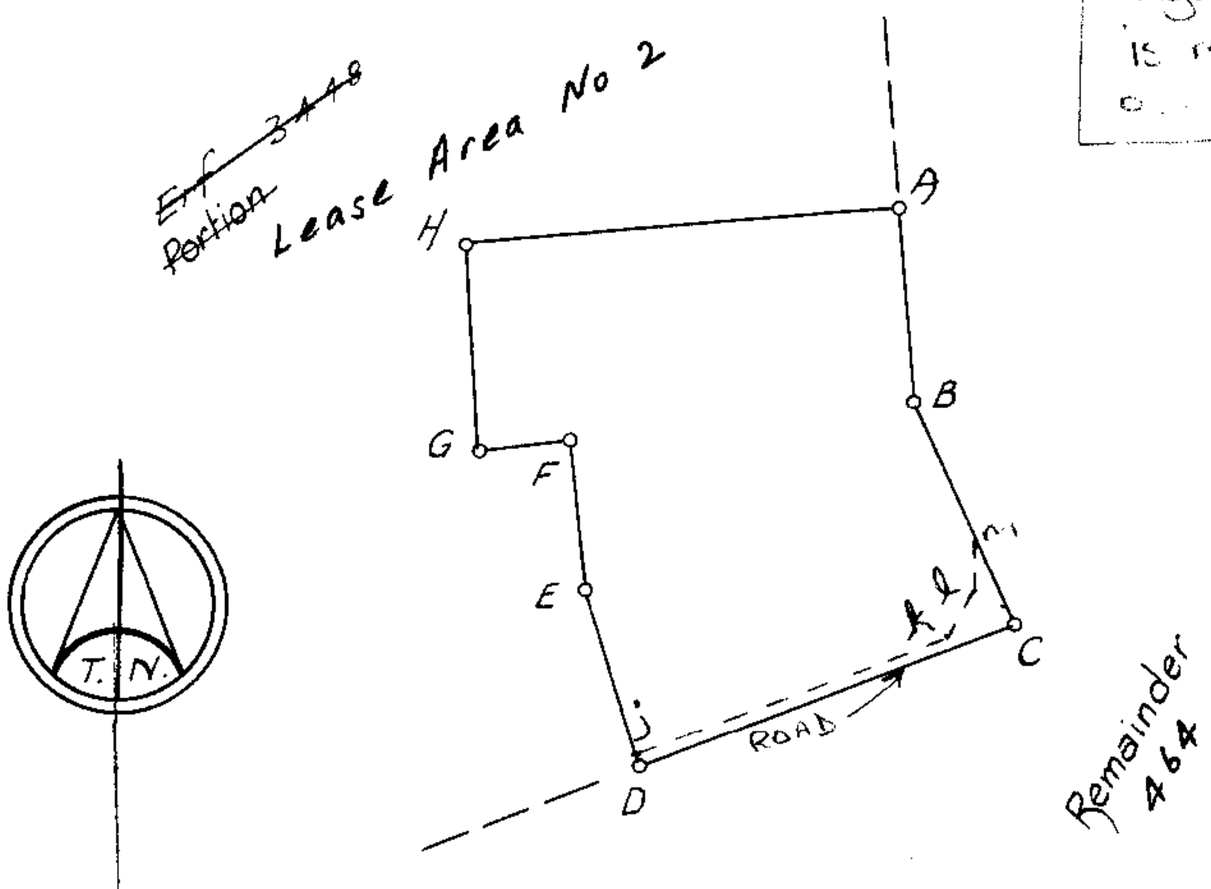
Beacons
A B D E F G H 1"x3ft Round Iron Peg
C 3ft Iron Standard

Approved.

J. de Smidt.
Surveyor-General.

Figure jklm CD is road created E 2081/2002

~~Erf 3448~~ Portion
Lease Area No 2



Scale 1 : 2500

The figure ABCDEFGH

represents 1·4274 Morgen *of land being*

LEASE AREA NO 1 OVER ERF 464 GEORGE

~~Erf~~ ~~Portion 3449 (a ptn. of Erf 464) George~~

situate in the Municipality & Division of George *Province of Cape of Good Hope*

R.R. *Surveyed in* August 1948 June 1960 *by* ~~me~~ us

For Lease Purposes

T.J. Hascall
Ronald Ross.
Land Surveyors

This diagram is annexed to	*The original diagram is* No.1293/1920 *annexed to* D/G Geo. Q. 15.15. (Ded. Plan. G. 37.)	*File No.* 5/8775/15 S *S.R. No. E.* 1955/60 BL - 700/W.3 B
Registrar of deeds.		LEASED

A S.P.C.T.—A5539

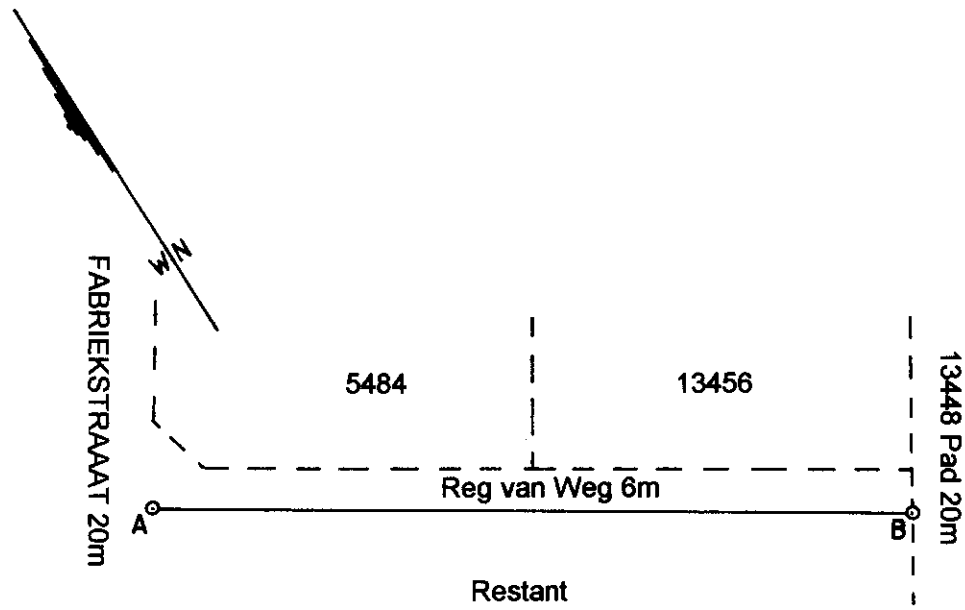
8591/60

SERVITUDE DOM.

SYE Meter		RIGTINGS-HOEKE		KOÖRDINATE Y Stelsel WG 23°		X	L.G. No. 4244/2003
		KONSTANTE		+ 0,00	+	3 700 000,00	
AB	100,00	302 05 20	A	+ 49 699,46	+	61 291,87	
			B	+ 49 614,73	+	61 344,99	Goedgekeur
		31CD25	⊕	+ 49 558,98	+	61 157,78	AMS
		33CD25	⊕	+ 49 813,07	+	61 229,81	Landmeter-generaal
							2003·10·09

Bakenbeskrywing

A B..... 16mm Ysterpen.



SKAAL 1:1 000

Die lyn A B
stel voor die suid-westelike grens van 'n Reg van Weg 6m wyd oor die Restant van ERF464 GEORGE
geleë in die
Munisipaliteit en Administratiewe Distrik George Provinsie Wes-Kaap.

Opgemeet in Mei 2003 deur my

Professionele Landmeter
C P M Rautenbach PLS 0509

Hierdie diagram is geheg aan Transportakte No. Gedateer t.g.v. Registrateur van Aktes	Die oorspronklik diagram is No $^{B}_{A}$ 1293/1920 geheg aan Grondbrief No. Geo. Q15 - 15	Lêer No. S/8775/55 M.S. No. 1919/2003 Kompilasie BLSX-3412 (M 4452) Ded. Plan G37 (2281) Portfolio 98 LPI C0270002

SERVITUDE DOM. 4244/2003

LEASEHOLD COPY

OFFICE COPY

SIDES Metres		ANGLES OF DIRECTION		CO-ORDINATES Y System L°23°	X
		Constants		+ 500 000,00	+ 3 760 000,00
AB	54,03	370 · 50 · 10	A	+ 1947,04	+ 830,32
BC	132,36	311 · 22 · 20	B	+ 1906,16	+ 925,65
CD	41,91	0 · 59 · 50	C	+ 1806,38	+ 1013,53
DE	35,23	62 · 14 · 0	D	+ 1907,11	+ 1055,43
EF	62,22	46 · 23 · 40	E	+ 1838,28	+ 1071,84
FG	44,37	34 · 44 · 50	F	+ 1883,33	+ 1114,75
GH	13,00	38 · 28 · 0	G	+ 1908,62	+ 1151,21
HJ	147,83	128 · 28 · 0	H	+ 1916,71	+ 1161,39
JA	138,44	205 · 29 · 50	J	+ 2032,46	+ 1069,43
GK	143,12	308 · 28 · 0	G	+ 1908,62	+ 1151,21
KL	7,47	266 · 49 · 10	K	+ 1796,56	+ 1240,24
LM	95,77	225 · 10 · 20	L	+ 1789,10	+ 1239,83
MN	18,78	236 · 25 · 40	M	+ 1721,18	+ 1172,81
NO	38,85	318 · 34 · 10	N	+ 1705,53	+ 1161,92
			O	+ 1679,82	+ 1191,05

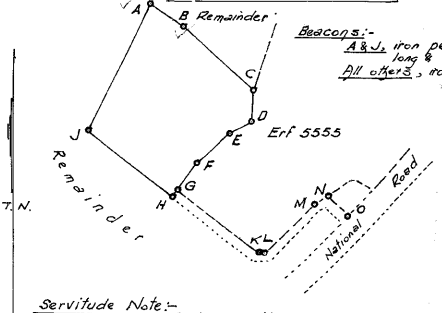
S.G. No.

L 8858/72

Approved

Surveyor-General

16.1.73



Beacons:-
A & J, iron peg 750 m.m. long & 18 m.m. dia.
All others, iron peg 12 m.m. dia.

WITHDRAWN
SEE FILE S 8775
PAGE 3-58
SURVEYOR-GENERAL
2004-11-17

Servitude Note:- The broken lines GK, KL, LM, MN & NO represent the N.E., N. & N.W. sides of a Servitude Road 13 m. wide, as shown.

Scale: 1/5000

The figure ABCDEFGHJ

represents 3,2713 Hectares of land, being

Lease Area ~~a portion of~~ Erf 464 George situate on

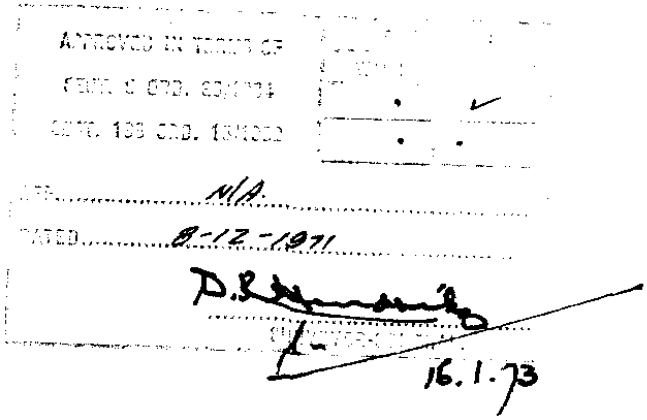
~~situate~~ in the Municipality and

Administrative District of George, Province of Cape of Good Hope.

Surveyed in March 1972 by me,

Land Surveyor

This diagram is annexed to	The original diagram is	File No. S/8775/119
No. D/S dated K427 4-4-1974 L i.f.o.	No. 1293/1920 annexed to Grant No. Geo. Q. 15. 15 Filed as plan G37(2281)	S.R. No. E 2367/72 Comp. BL-700b ~~Y 32~~ Gen. Plan 3cc(5279)
Registrar of Deeds		



Municipality of George.

I certify that the lawful requirements of my Council, arising out of this survey, have been complied with.

for Town Clerk
16/11/72

LEASEHOLD DGM.

OFFICE COPY

SIDES Metres		ANGLES OF DIRECTION		CO-ORDINATES Y System Lo 23°		X
		Constant		± 0,00		+3700 000,00
AB	314,87	265.04.20	A	+ 48 764,03	+	61 204,21
BC	195,67	354.57.30	B	+ 48 450,33	+	61 177,16
CD	95,42	32.00.00	C	+ 48 433,13	+	61 372,07
DE	1,93	33.17.50	D	+ 48 483,70	+	61 452,99
EF	241,11	84.58.30	E	+ 48 484,76	+	61 454,60
FG	77,38	170.41.50	F	+ 48 724,94	+	61 475,72
GA	196,95	172.14.40	G	+ 48 737,45	+	61 399,36

S.G. No.

L 9547/73

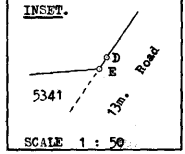
Approved

for Surveyor-General
19-7-1974

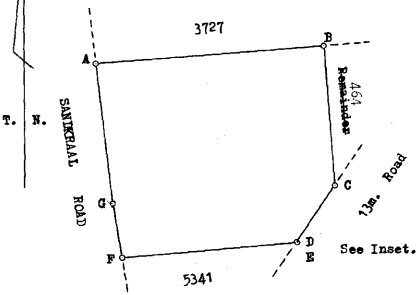
Beacons:

	Δ Geo 9	+ 50 788,27	+ 55 472,47
	Δ Oud 7	+ 56 603,60	+ 51 940,04
A.	Wooden corner fence post.		
B.	25mm. round iron peg next to concrete block.		
C.D.E.F.G.	20mm. round iron pegs.		

INSET.



SCALE 1 : 50



Scale: 1 : 5 000

The figure A.B.C.D.E.F.G.

represents 8,2019 Hectares of land, being

a LEASE AREA ON ERF 464, GEORGE.

situate in the Municipality and

Administrative District of GEORGE. Province of Cape of Good Hope.

Surveyed in FEBRUARY - OCTOBER, 1972.

by me. Land Surveyor

This diagram is annexed to	The original diagram is	File No. S.8775/55/3
No		S.R. No. E.2327/73
dated	No. B1293/1920 annexed to	Comp. BL-7DD/Y4 & 5 (1757) (1759).
i.f.o	~~Transfer~~/Grant	
	No. Geo.Q. 15-15.	Dep. Plan G37 (2281).
Registrar of Deeds		

B

APPROVED IN TERMS OF	CONDITIONS	
	WITH	WITHOUT
SECT. 9 ORD. 33/1934		✓
SECT. 196 ORD. 15/1952		

REF. N/A

DATED. 9/6/1972

SURVEYOR-GENERAL.

COOSEN, CLOUGH & WHITE
LANDMETER ... SURVEYORS
Postbus/P.O. Box 60 George Tel. 3810

DUMMY TRIPLICATE.

Dgm No A/1293/1920

GEORGE TOWN COMMONAGE.

Now Erf 464
GEORGE

Filed as Plan No 3cc (5279)

D.O. copy filed as Commonage Plan No 14.

S.G. Outline Copy filed as Plan G 37. (2281)

Tracing (w/o deductions) No 823A

Geo. Q. 15-15

Portfolio 98 Outline Gen Plan S (2670)

Geo. Q. 15-15

S/8775/56.

S/8775

B C

BL-TDD
V.44

464

SERVITUDE DGM.

Bailey & le Roux, Professional Land Surveyors, George

SIDES Metres		ANGLES OF DIRECTION	CO-ORDINATES Y System WG 23° X		
				0,00	+3 700 000,00
AB	145,40	36.47.00	A	+51 821,88	+59 825,21
BC	40,01	13.56.40	B	+51 908,95	+59 941,67
CD	14,24	351.57.50	C	+51 918,59	+59 980,50
			D	+51 916,60	+59 994,60
EF	80,86	353.22.00	E	+51 913,07	+60 024,63
FG	84,65	19.19.40	F	+51 903,73	+60 104,95
GH	14,15	334.15.30	G	+51 931,75	+60 184,83
			H	+51 925,60	+60 197,58
		96P4	⊕	+51 147,60	+60 680,77
		16CD24	⊕	+53 499,12	+59 258,20

S.G. No.

1426/2009

Approved

for Surveyor-General

2009.04.07

Sheet 1 of 2 sheets

Beacon Descriptions:
A,B,C,D,E,F,G,H 12mm iron peg

The lines A B C D and E F G represent the north western and western boundaries respectively of a

Water pipe line Servitude 3m wide as shown over Remainder Erf 464 George

situate in the Municipality and
Administrative District of George
Province of the Western Cape
Surveyed in February 2009
by me

J.H. Bailey (PLS0019)
Professional Land Surveyor

This diagram is annexed to No. dated i.f.o. Registrar of Deeds	The original diagram is SG. No. B1293/1920 annexed to Deed of Grant No. Geo.Q.15-15 Filed as Plan 3CC (5279)	File No. S/8775/106 S.R. No. **499/2009** Comp. BL-7DD/X32 (1749) **Deduction Plan 2281** **Portfolio 98**

SERVITUDE DGM.

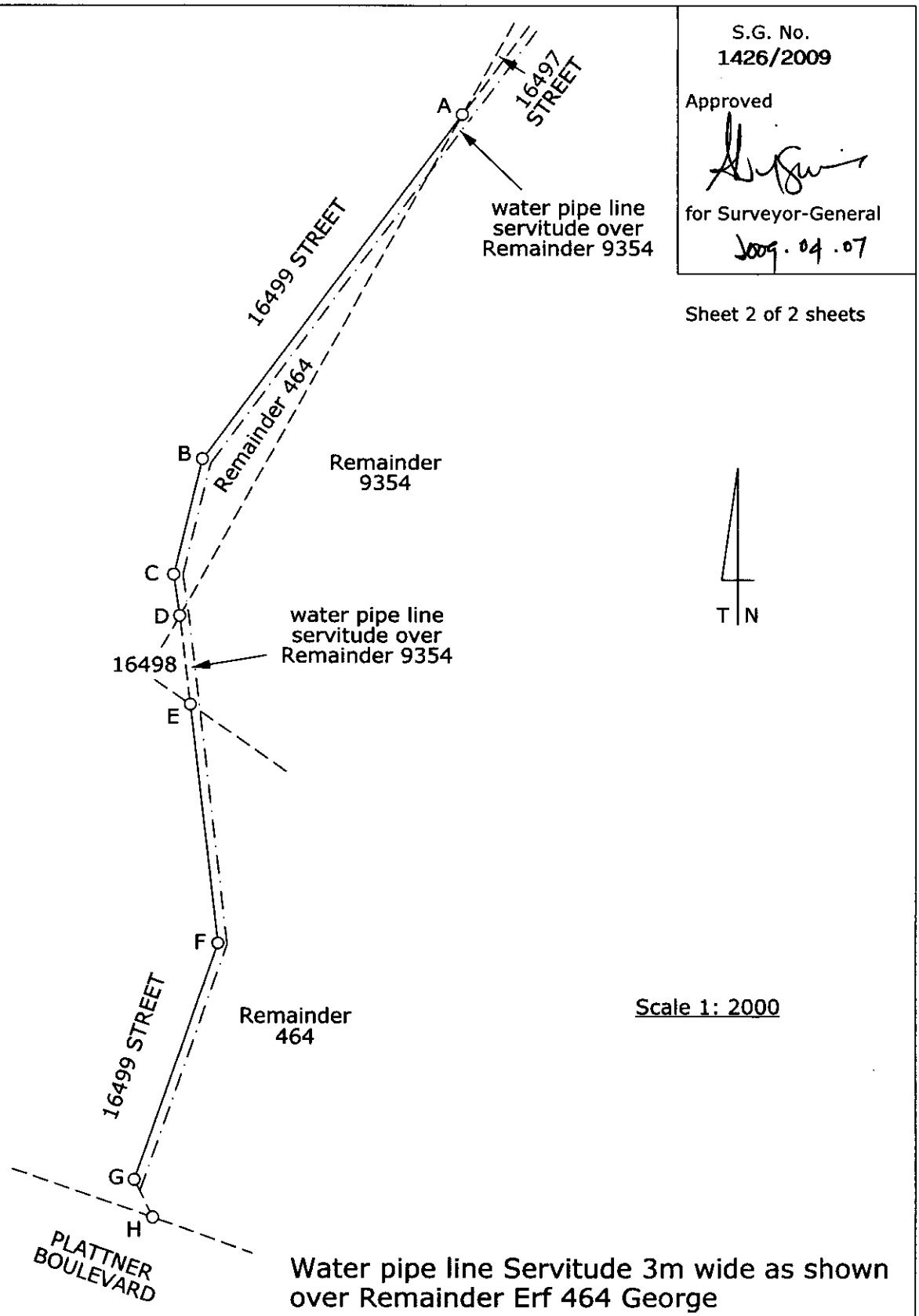
Bailey & le Roux, Professional Land Surveyors, George

S.G. No.
1426/2009

Approved

for Surveyor-General
2009.04.07

Sheet 2 of 2 sheets



Scale 1: 2000

Water pipe line Servitude 3m wide as shown over Remainder Erf 464 George

situate in the Municipality and
Administrative District of George
Province of the Western Cape
Surveyed in February 2009
by me

J.H. Bailey (PLS0019)
Professional Land Surveyor

SERVITUDE DGM.

SIDES Metres		ANGLES OF DIRECTION		CO-ORDINATES Y System: WG23° X		
		Constants:			0,00	+3700 000,00
AB	202,06	324 29 20	A	+	53 713,38	+ 62 384,34
BC	607,11	339 24 10	B	+	53 596,01	+ 62 548,82
CD	99,70	33 21 00	C	+	53 382,44	+ 63 117,13
DE	388,32	339 08 00	D	+	53 437,25	+ 63 200,41
EF	677,69	22 57 50	E	+	53 298,93	+ 63 563,26
			F	+	53 563,34	+ 64 187,24
	GEO 3	116	△	+	51 698,51	+ 62 331,89
	GEO 14	127	△	+	59 635,81	+ 64 646,01

S.G. No.
762/2019
Approved

for SURVEYOR-GENERAL
28-05-2019

SHEET 1 OF TWO SHEETS

Description of Beacons
A,B,C,D,E : Centre of wood monopole
F : Centre of steel monopole

EXEMPT FROM PROVISIONS OF ACT 70 OF 1970
SECTION 2(a)

The line a B C D E f represents

the centre line of an electric power transmission servitude extending 11,00 metres on each side of the line a B C D E f

over the remainder of

ERF 464 GEORGE

situate in the Municipality of George
Administrative District of George
Province of the Western Cape

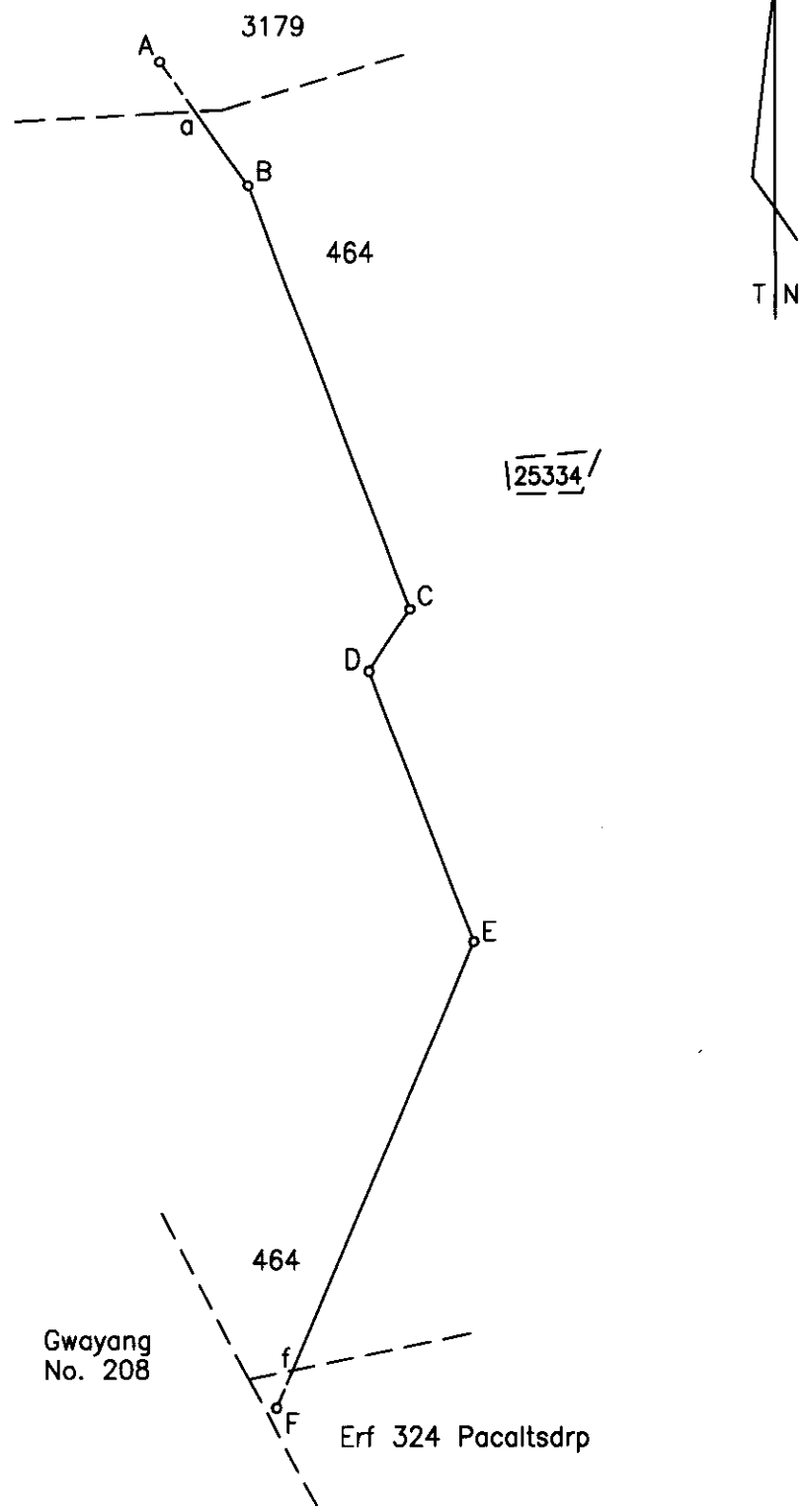
Surveyed in May 2015 – September 2018 by me

B.H. KRUGER. (PLS 0321)
Professional Land Surveyor

Exempt i.t.o Section 24(1)(f)
Of Municipal Bylaw of Act 3/2014
Ref: Various Erven George
Date: 5 February 2019

This diagram is annexed to No. d.d. i.f.o. Registrar of Deeds	The original diagram is S.G. No. B1293/1920 Grant Geo. Q. 15-15 Filed as Plan 3cc (5279)	File S/110, S/6018/1 S.R. 492/2019 Comp. BL-7DDC (4134) AL-1BBA (6484) Deduction Plan (2281) LPI C0270002

SERVITUDE DGM.



S.G. No.
762/2019
Approved
for
SURVEYOR-
GENERAL
28-05-2019

SHEET 2 OF
TWO SHEETS

Scale: 1/10000

an electric power transmission servitude
over the remainder of
ERF 464 GEORGE
situate in the Municipality of George
Administrative District of George
Province of the Western Cape

Surveyed in May 2015 – September 2018 by me

B.H. KRUGER. (PLS 0321)
Professional Land Surveyor

Serv. Dgm. 762/2019

5279

B.1293/1920

B.R93/1920

~~1167/1919~~



Scale 1000 Chains Each = 4 Inch

1" 12500

DIT Y.Z.DIG
29-11-15
ETIS 1705
S

Geo. Q.15.15
15.6.1925
Municipality of George

3 CC

REGISTRATION

727

5279

SG No. 4467/1919



The area in figure A, A1, A2, A3, etc, etc, bounded by the lines A, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28, A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, A40,

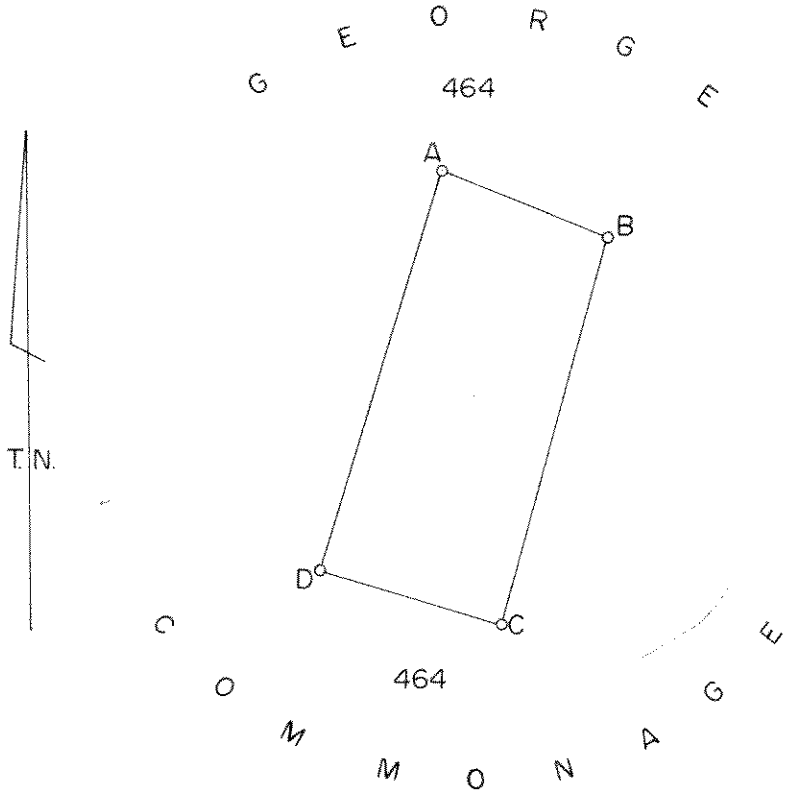
HUURKONTRAK-KAART
LEASEHOLD DIAGRAM

OFFICE COPY

SIDES Cape Feet		ANGLES OF DIRECTION	CO-ORDINATES Y System Lo 23° X		
		Constants		+ 100 000.00	+ 11900 000.00
AB	190.15	291.45.00	A	+ 67 044.65	+ 39 966.31
BC	420.25	16.00.20	B	+ 66 868.04	+ 40 036.77
CD	199.15	106.48.10	C	+ 66 983.91	+ 40 440.73
DA	436.63	197.18.30	D	+ 67 174.56	+ 40 383.16

S.G. No.
4830/69
Approved
Surveyor-General
23.10.1969

All beacons are Round Iron Pipes $\frac{3}{4}$" diameter



WITHDRAWN
SEE FILE S/ 8775 PAGE 358
for SURVEYOR-GENERAL
2004-11-11

Scale: 1 : 2500

The figure A. B. C. D.
represents 83229 Square Feet of land, being
a lease area ~~ERF 4440~~ ~~(Portion of~~ over Erf 464 GEORGE
situate in the Municipality and Administrative District
of George Province of Cape of Good Hope.
Surveyed in January and July 1969
by me,

Land Surveyor

This diagram is annexed to	The original diagram is	File No. 5\8775 V.1
No. dated i.f.o.	No. B1293/1920 annexed to filed as 3cc(5279) ~~Transfer/~~Grant No. Geo. Q 15.15	S.R. No. E 1318/69. Comp. BL-7DD, BL-700/W3. Outline Plan G37(2281) ~~Portfolio 98~~ LPI C0270002

Registrar of Deeds

Leasehold Diagram. ~~Serv.~~ 4830/1969

LEASEHOLD DGM.

OFFICE COPY

SIDES Metres		ANGLES OF DIRECTION		CO-ORDINATES Y System L°23	X
		Constants		+ 50 000,00	+3761000,00
AB	398,50	264·19·50	A	+ 2047,85	+ 525,67
BC	250,94	354·19·50	B	+ 1651,30	+ 486,30
CD	398,50	84·19·50	C	+ 1626,51	+ 736,01
DA	250,94	174·19·50	D	+ 2023,06	+ 775,38
		Geo. 3	▲	+ 51650,26	+3762036,31
		George Town Peak	▲	+ 49649,53	+3753731,23

S.G. No.

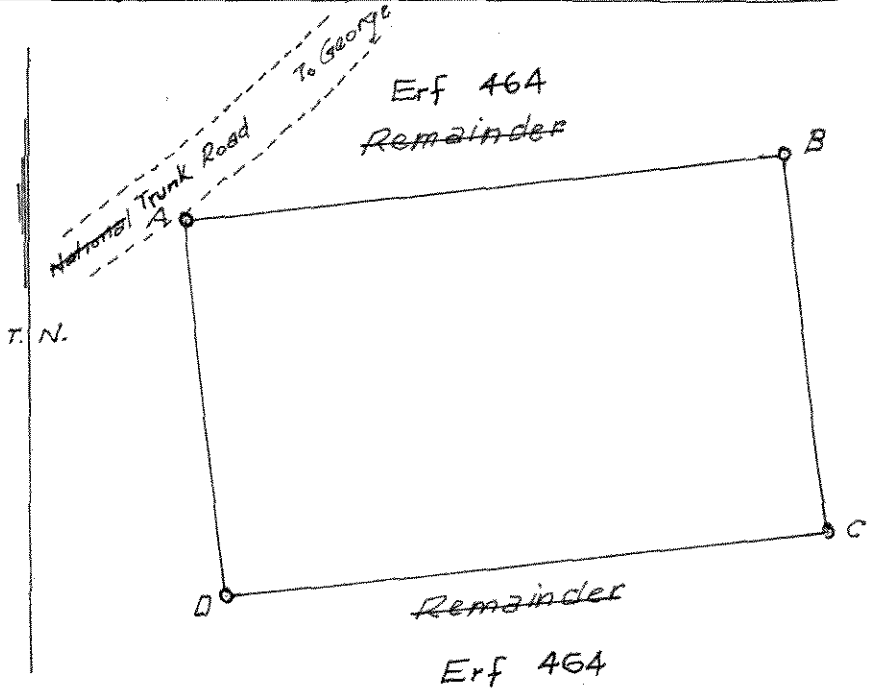
5508/80

Approved

W.W. Dehning.

for Surveyor-General

28-10-1980



Beacons:-

A.B.C&D, iron peg 37 m.m. dia.

WITHDRAWN

SEE FILE S/ 8775/855 PAGE 330

A.J.R. Cawood

1990. 3. 22 SURVEYOR-GENERAL

Scale: 1/5000

The figure A B C D

represents 10,0000 Ha. of land, being

Lease Area on Erf 464 George

situate in the Municipality and

Administrative District of George, Province of Cape of Good Hope.

Surveyed in Sept. 1980

by me, T. Pascual. Land Surveyor

This diagram is annexed to	The original diagram is	File No. S/8775/55 V.1
No. dated i.f.o.	(filed as Plan 3cc (5279)) No. B/293/1920 annexed to ~~Transfer~~/Grant No. Geo. Q. 15. 15	S.R. No. E 1759/80 Comp. BL-TDDC (4134) BL-TDD/Y34 (6518) Deduction Plan G-37 (2281 Sht. 3+4) LPI C0270002
Registrar of Deeds		

Leasehold Dgm. 5508/1480

LEASEHOLD DGM.

OFFICE COPY

SYE Meter		RIGTINGS-HOEKE	KOORDINATE Y Stelsel: WGS84 23° X		
			Konstantes:	± 0,00	+3700 000,00
AB	145,65	304 49 00	A	+ 51 913,08	+ 60 024,67
BC	85,40	86 41 00	B	+ 51 793,50	+ 60 107,83
CD	104,48	356 42 50	C	+ 51 878,76	+ 60 112,77
DE	9,50	115 09 40	D	+ 51 872,77	+ 60 217,08
EF	46,87	109 14 10	E	+ 51 881,37	+ 60 213,04
FG	14,15	154 19 20	F	+ 51 925,62	+ 60 197,60
GH	84,65	199 20 40	G	+ 51 931,75	+ 60 184,85
HA	80,86	173 20 40	H	+ 51 903,71	+ 60 104,98
		93P4	⊕	+ 51 007,78	+ 60 463,60
		96P4	⊕	+ 51 147,60	+ 60 680,77

L.G. No. 3015/ 2022

Goedgekeur

nms. LANDMETER-GENERAAL

2023-01-20

Bakenbeskrywings:

A,B,C,D,E,F,G,H.....12mm Ysterpen

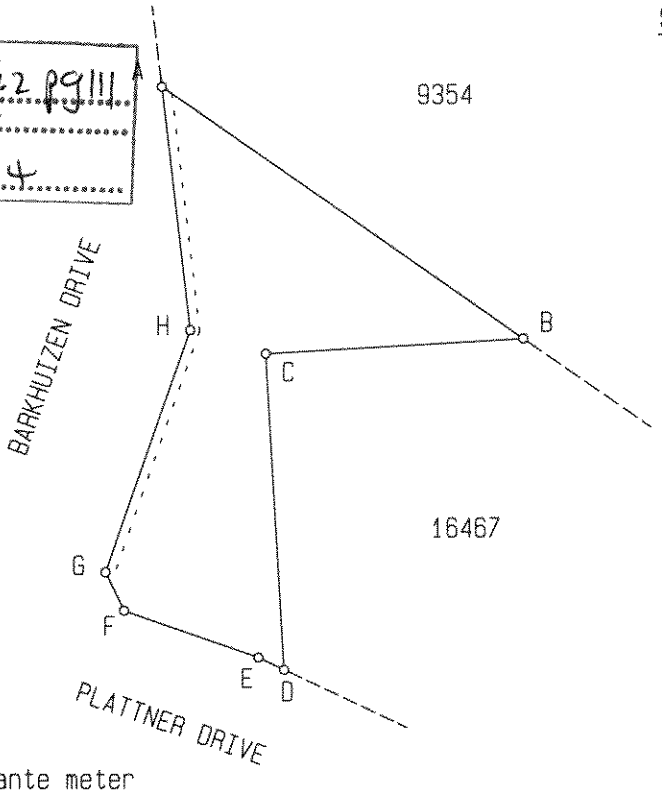
Serwituut Nota:

Die lyn AHG stel voor die Westelike grens van n Waterpyplynserwituut, 3.00m wyd soos aangetoon, Sien Lg Kaart No.1426/2009.

T N

Skaal 1:2500

Withdrawn
See S/8775/106 V2 P9111
For Surveyor General
Date: 19.06.2024



Die figuur ABCDEFGH

stel voor 9145 Vierkante meter grond synde

L10

Huurgebied oor die Restant van Erf 464 GEORGE.

Geleë in die Munisipaliteit en Administratiewe Distrik: George

Provinsie Wes-Kaap

Opgemeet in April 2022 deur my

H J Gildenhuys (PLS 1133) Pr. Landmeter

Hierdie kaart is geheg aan	Die oorspronklike kaart is	Lêer Nr.S/8775/119 Vol.3
No.	LG.No. B1293/1920	M.S. No. 1786/ 2022
ged.	annexed to Deed of Grant No. Geo.Q.15-15	Komp. BL-700/X32 (1749)
t.g.v.		Deduction Plan: G.37(2281)
Registrateur van Aktes		LPI C0270002

Huurgebied ~~oor Erf 464 George~~

Diagram 3015/2022

EXEMPT FROM PROVISIONS OF ACT 70 OF 1970 SECTION 1(a)

Exempt i.t.o. Section 24(1)(f) of Municipal Land Use Planning Bylaw Ref: Portion of the Remainder Erf 464 (Erf 16467) George Date: 31 October 2022

B1293/1920

1:6250

DEDUCTION PLAN NO 2281

G.37 (2281)

OF ERF 464 GEORGE

SHEET 2

THIS PLAN CONSISTS OF 4 SHEETS

For deductions see portfolio no. 98

SHEET 1 JOINS HERE

SHEET 4 JOINS HERE

+49 000 M +48 000 M +47 000 M +46 000 M +45 000 M

+3 757 000 M +3 758 000 M +3 759 000 M +3 760 000 M

Road intended ... opgr ... closed. Vide T/C's Notice d.d. 1977-03-09 File S/8775/6 p. 24 SURVEYOR GENERAL Date 15-3-77

Lettered Erf 26372 2013-10-04 60 8775/55 V 12 P.R. Phillips 2013-10-23

ERF 19687 1998-03-06 86 8775/103 98-07-22

Prescriptive claim ERF 16804 1993-01-25 47 8775/103 1993-08-26

ERF 8129 2000-2-25 S/ 8775/25 2000-3-23

PRESCRIPTIVE CLAIM ERF 19961 2000-06-09 92 8775/103 2000-07-13

Niepoths Dale

Geneva Fontein

Dualla

Annex Geneva Fontein

Kat River

TIN

GEORGE TOWNSHIP

HIBERNIA STREET

MARKET STREET

VICTORIA STREET

ADDERLEY STREET

LAING STREET

FICHAT STREET

Railway Station

St. UVWX 1986-09-19 129 8775/55 30/9/86

Fig lettered a b c d 8775/56 VI P 115 14-7-25

For subdivision see General-Plan G.42

For subdivisions see General-Plan G 42a

Ram. Rd.

Grens St. Old Road

PETER KOEN'S KRAAI BOSCH

KRAAI BOSCH A

1848 1846 1853 1849 1850 1725 8717 8716 8715 8714 8713 8712 8711 8710 8709 8708 8707 8706 8705 8704 8703 8702 8701 8700 8699 8698 8697 8696 8695 8694 8693 8692 8691 8690 8689 8688 8687 8686 8685 8684 8683 8682 8681 8680 8679 8678

1:6250

DEDUCTION PLAN NO 2281

SHEET 4

G.37

OF ERF 464 GEORGE

THIS PLAN CONSISTS OF 4 SHEETS

For deductions see portfolio no. 98

SHEET 2 JOINS HERE

SHEET 3 JOINS HERE

+3 761 000 M

+3 762 000 M

+3 763 000 M

+3 764 000 M

+46 000 M

+47 000 M

+48 000 M

+49 000 M

+50 000 M

2997

13404

13446

12516

6828

7428

3727

8437

17319

14695

4425

4427

4428

5514

4168

5117

11759

12512

LEASEHOLD

Dgm. 3547/73

6473

6732

5845

7486

26959

5073

4351

Kraai Bosch A

Kraai Bosch B

Remainder of Zandkraal

PACALTSDORP COMMONAGE

Erf 24841 George

Road lettered along Bdy. ..K.Y.....
closed Vide Adm. Cert. dd .13.12.1968.
Files S..8775/103.....p..10.....
(Sgd) W. Groenewald .....
Surveyor-General
Date .12.2.1968.....

T/Cs Y W X N Z V
11-10-74
8775/85 41
22/11/1974

abcd
1988.04.15
8775/35 829
88.04.18

SERVITUDE/LEASEHOLD AREAS			
SURVEY RECORD	DIAGRAM NO.	DESCRIPTION	DEED	INITIALED
E1125/44	3204/45	PORTION L5	D/L 6-1946	
	7346/1948	PORTION 64		
E 2288/55	10055/56	PORTION L8	D/L 1-1958	
E 1828/1957	9834/1957	PORTION L2	D/L 24-1958	
E 2367/1972	8858/1972	LEASE AREA	withdrawn	
E 1319/1969	9320/1969	LEASE AREA	withdrawn	
E 1961/1958	9359/1958	The lines a,b, be represent the western boundaries of Servitude roads 6.30m wide		
E 1759/80	5508/80	Withdrawn.		
E 1544/2003	3389/2003			
E1919/03	4244/2003	The line f,g represents the south western boundary of a Right of Way 6m wide		
499/2009	1428/2009	The line s1, s2, s3, s4 is the northwestern and the line s5, s6, s7 is the western boundary of a 3m wide water pipe line servitude		
4924/2019	7621/2019	The line a,b,c,d,e,f,g represents the centre line of an electric power transmission servitude		

1786/22 3015/22 The figure L40 withdrawn represents a lease area

783/24 1232/24 withdrawn

①	Closure of ptn of street	Erf 13796	T/C's notice dd 8/8775/118 pg 329	NB	82.02.04
②	Closure of ptn of Street	—	T/C's Notice dd 1990-07-06 P 93	LL	90-08-22
③	Closure of ptn of Street	—	T/C's Notice dd. 1989-10-12 8/8775/103 p 38	LL	90-08-22
④	Closure of ptn of Road	ptn of Erf 15085	T/C's Notice dd. 91-02-28 8/8775/35 p 441	LAT	91.03.08
⑤	Closure of ptn of STREET	Erf 16804	T/C's Notice dd. 93-08-27 8/8775/54 p 219	R.A.T	93.09.10
⑥	Closure of ptn of Street	ERF 18298	T/C'S Notice 11 1995-08-03 S/8775/26 p. 157	R.A.T	1995-11-2

ENTRIES IN THESE ENDORSEMENT COLUMNS IS NOT NECESSARY

DEDUCTION PLAN
OF
ERF 464 GEORGE
SITUATE IN THE MUNICIPALITY
& ADMINISTRATIVE DISTRICT
OF GEORGE PROVINCE OF
CAPE OF GOOD HOPE

Vide Dgm. No. B.1293/1920 (Plan 3cc)

D G GEO. Q. 15.15.

Scale 1:6250

Compiled: J. Gillespie, C Kriel
Checked : 15-8-1973

THE FOLLOWING DEDUCTIONS HAVE BEEN MADE FROM THIS DIAGRAM						
SURVEY RECORD	DIAGRAM NO.	SUBD.	AREA HA/SQ.M	TRANSFER NO.	INITIALED	REMDR.
E1544/2003	3389/2003	ERF 20346				
E 849/2002	1900/2002	ERF 20255	798 m²	88079/2003	WF	
E 1319/2002	258/2002	ERF 20596	4304 m²	55970/2005	AM	
	SEE	PORTFOLIO	No. 98			
E78/2009	189/2009	ERF 28798	1913m²			

Use portfolio 98

FOR DEDUCTIONS VIDE
PORTFOLIO NO. 98

1:6250

DEDUCTION PLAN NO 2281

G.37

OF ERF 464 GEORGE

SHEET 1

THIS PLAN CONSISTS OF 4 SHEETS

For deductions see portfolio no. 98



OFFICE COPY

SERWITUUTDIAGRAM

	SYE Meter	RIGTINGS-HOEKE		KOORDINATE Y Stelsel: WG23 X	
		Konstante:		0, 00	3700 000, 00
AB	145, 65	304 49 00	A	+ 51 913, 08	+ 60 024, 67
BC	85, 40	86 41 00	B	+ 51 793, 50	+ 60 107, 83
CD	104, 48	356 42 50	C	+ 51 878, 76	+ 60 112, 77
DE	9, 50	115 09 40	D	+ 51 872, 77	+ 60 217, 08
EF	46, 87	109 14 10	E	+ 51 881, 37	+ 60 213, 04
FG	14, 15	154 19 20	F	+ 51 925, 62	+ 60 197, 60
GH	84, 65	199 20 40	G	+ 51 931, 75	+ 60 184, 85
HA	80, 86	173 20 40	H	+ 51 903, 71	+ 60 104, 98
		93P4	⊕	+ 51 007, 78	+ 60 463, 60
		96P4	⊕	+ 51 147, 60	+ 60 680, 77

L. G. No. 1232/2024

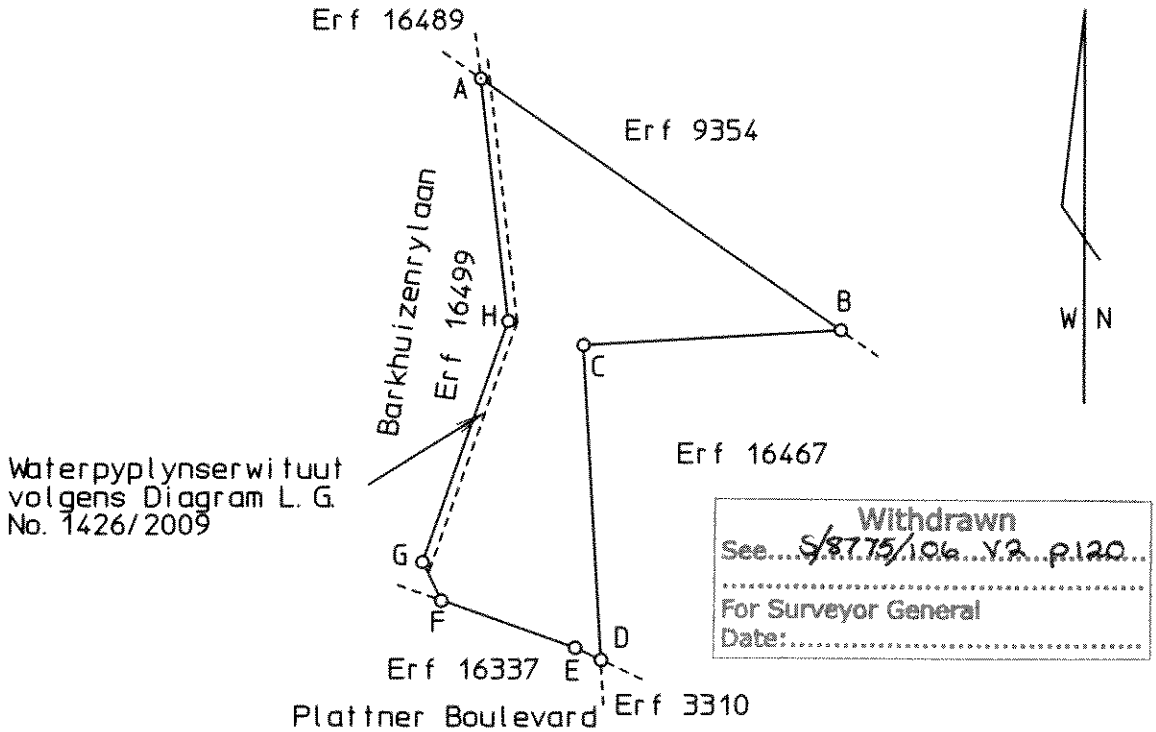
Goedgekeur

nms. LANDMETER-GENERAAL 19.06.2024

Beskrywing van bakens

A, B, C, D, E, F, G, H : 12mm Ysterpen

Skaal 1 : 2 500



Withdrawn
See... S/8775/106...V.2...p.120...
For Surveyor General
Date:

Die figuur A B C D E F G H stel 'n Serwituut vir Parkering groot 9145 vierkante meter oor die Restant van Erf 464 GEORGE gelee in die Munisipaliteit en Administratiewe Distrik George Provinsie Wes Kaap

Opgemeet in Mei 2024 deur my

JD Conradie PLS 0973
Professionele Landmeter

EXEMPT FROM PROVISIONS OF ACT 70 OF 1970
1 (a)
SECTION.....

Exempt i.t.o. Section 24(1)(f)...
of Municipal Land Use Planning Bylaw
Ref: Erf 16467, George
Date: 24 May 2024

Hierdie diagram is geheg aan No. ged. t. g. v. Registrateur van Aktes	Die oorspronklike diagram is No B1293/1920 geheg aan Grondbrief No. Geo. Q. 15-15	Leer No ~~S/8775/119 Vol. 3~~ **S/8775/106 V.2** M.S. 733/2024 Komp. BL-7DD/X32 (1749) Aftekkingsplan: G. 37(2281) LPI C0270002

1:6250

DEDUCTION PLAN NO 2281

SHEET 3

G.37

OF ERF 464 GEORGE

THIS PLAN CONSISTS OF 4 SHEETS

For deductions see porfolio no. 98

SHEET 1 JOINS HERE

GEORGE TOWNSHIP

PACALTSDORP COMMONAGE

Gwayang River

Road Ramp

Road Reserve 20.12m

Lease Area 8850/1972

Prescriptive Claim
Road lettered Erf 20287
closed. Notice d.d. 2002-07-04
File: S/8775/136 v1 page: 70
for Surveyor-General 2002/7/22 Date

ERF 20670
closed. Notice d.d. 2003-04-04
File No. 8775/119 Vol 3 552
P.G. SURVEYOR-GENERAL 2003-05-21 DATE

ERF 29847
closed. Notice d.d. 2024-03-14
File No. 8775/136 V.1 P78
P.G. SURVEYOR-GENERAL 2024-08-05 DATE

SHEET 4 JOINS HERE

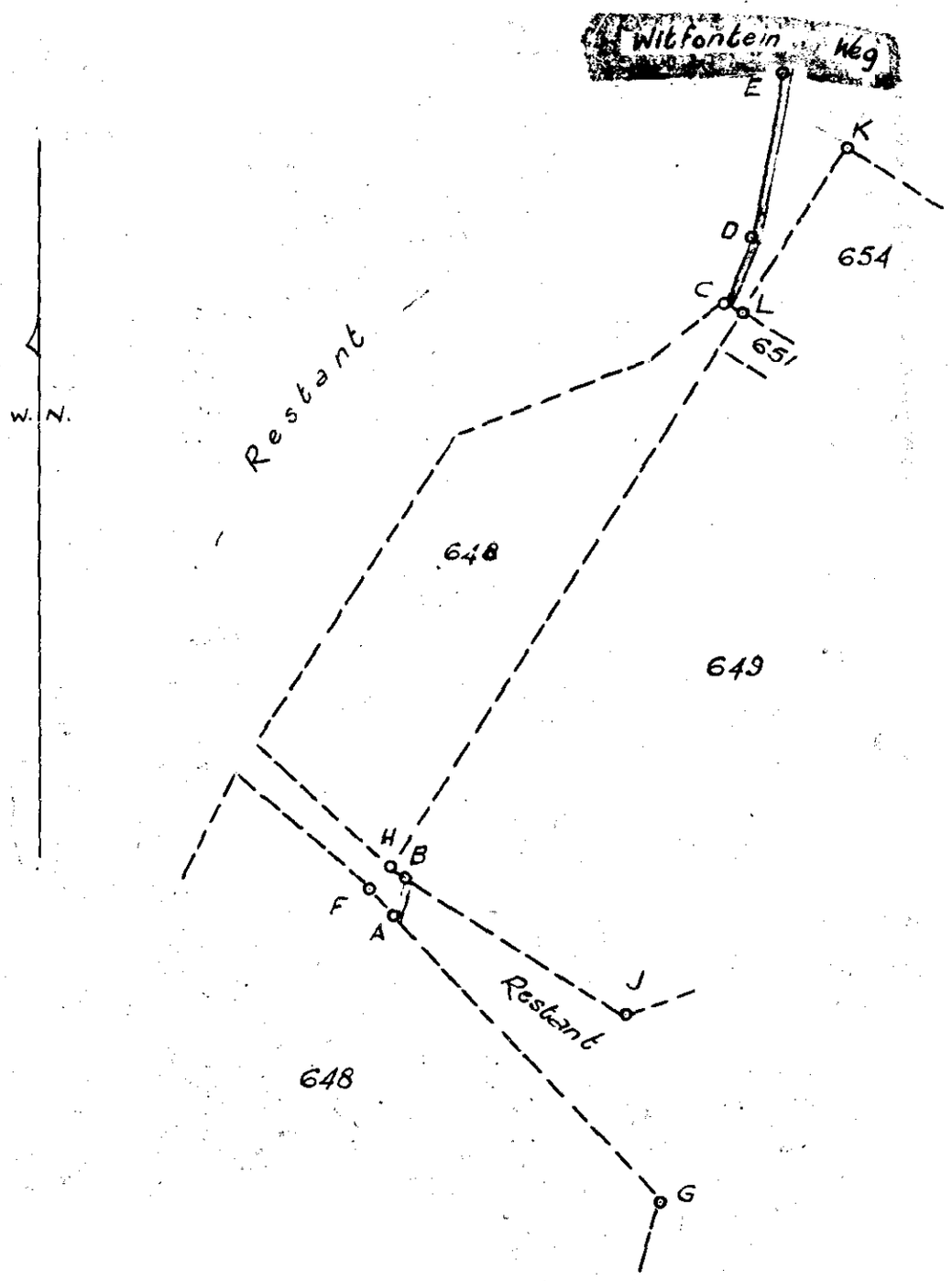
+3 761 000 M
+3 762 000 M
+3 763 000 M
+ 55 000 M
+ 54 000 M
+ 53 000 M
+ 52 000 M
+ 51 000 M
3761000
3762000
+763 000

T N

735

SERWITUUT-KAART
SERVITUDE DIAGRAM

KANTOORAFSKRIF
OFFICE COPY



Sye Kaapse Voet		Rigtingshoeke		Koördinate y		L° 23 x	
		Konstante		+ 160000·00		+ 11930000·00	
AB	95·12	189·12·30	A	+ 2706·87	+	8260·69	
			B	+ 2691·65	+	8166·80	
FA	83·48	317·47·40	F	+ 2762·95	+	8198·85	
GA	895·33	137·47·40	G	+ 2105·39	+	8923·90	
HB	37·40	302·48·20	H	+ 2723·09	+	8146·54	
JB	598·44	122·48·20	J	+ 2188·66	+	8491·03	
CD	161·33	203·32·10	C	+ 1958·15	+	6867·87	
DE	382·80	191·0·50	D	+ 1893·73	+	6719·96	
EK	225·48	319·28·0	E	+ 1820·60	+	6344·21	
KL	450·13	32·45·50	K	+ 1674·06	+	6515·58	
LC	48·25	122·55·30	L	+ 1917·65	+	6894·10	

L.G.Nr. 8353/58

Goedgekeur
P.J. van der Kevel
Landmeter-generaal
18·12·1958.

Bakens:-

A.B.D & E, ijsbe penne 18" lang en 1/2" deursnit.
C, ijsbe pen 2 voet lang en 1¼" do .
F, ingeplante Klip wat 4" uitsteek.
G, do do 12" do .
H, do ongeveer 4" onder die grond.
J & K, beton block 6" × 6" wat 6" uitsteek.
L, ingeplante Klip do 12"

Skaal : 1/5000

Die bruin lyne AB. CD en DE stel voor die Westelike kante van Serwituut Paaie, 20 Kaapse voet wyd, oor Erf 464 George, vanaf grens FG tot grens HJ, en vanaf grens CL tot Witfontein Weg.

Gelee in die Munisipaliteit en Afdeling George, Provinsie Kaap die Goeie Hoop.

Opgemeet in Sept. 1958 deur my J. Pascual Landmeter

Hierdie Kaart is gehegt aan Akte van Serwituut Nr. gedateer ten gunste van Registrateur van Aktes	Die oorspronklike kaart is Nr 1293/1920 gehegt aan Grondbrief Geo Q. 15.15 (3cc)	Lêer S/87,75/119 M.S. E 1949/58. BL-700/W5 Afdruk Plan G.37 Servitude

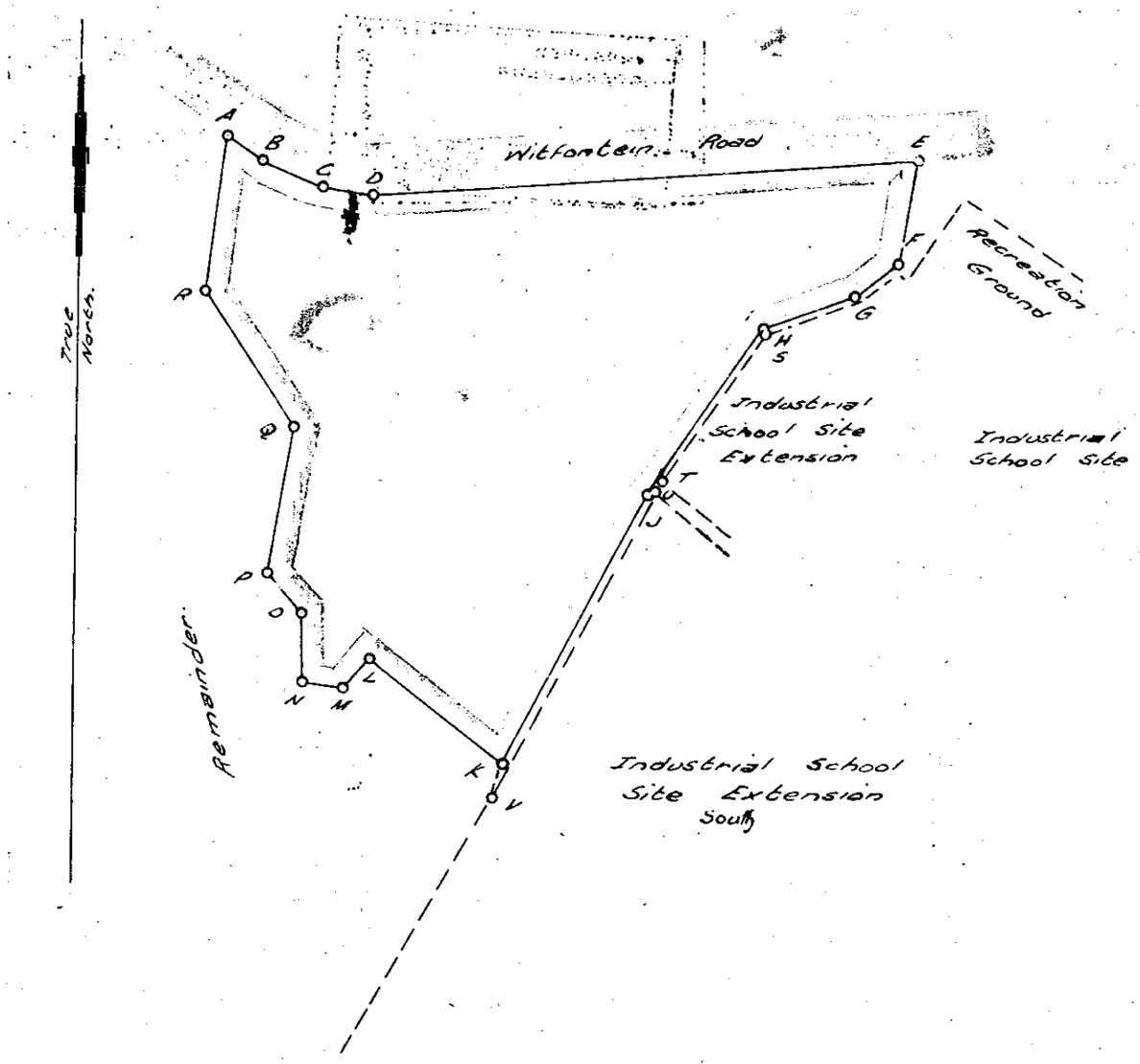
~~SUB-DIVISIONAL DIAGRAM,~~
~~Sect. 24 (b), Act No. 9 of 1927.~~

LEASEHOLD DIAGRAM

OFFICE COPY

7346/48

S.G. No.



SIDES Cape Feet		ANGLES OF DIRECTION	SYSTEM L° 23° CO-ORDINATES y		x	
		Constant	to	be added	+ 11900000·0	
AB	208·3	303° 42' 50"	A	+ 165124·8	+ 36260·3	14
BC	308·8	291. 24. 20	B	+ 164951·1	+ 36376·2	15
CD	234·8	280. 53. 50	C	+ 164663·6	+ 36488·9	16
DE	2594·0	265. 48. 20	D	+ 164433·0	+ 36533·3	17
EF	496·9	11. 16. 10	E	+ 161845·9	+ 36343·6	V1
FG	250·8	52. 23. 10	F	+ 161943·0	+ 36830·9	2
GH	460·3	68. 55. 30	G	+ 162141·7	+ 36984·0	3
HJ	949·2	34. 33. 30	H	+ 162571·2	+ 37149·5	4
JK	1443·4	26. 59. 50	J	+ 163109·6	+ 37931·2	5
KL	807·2	127. 22. 10	K	+ 163764·8	+ 39217·3	6
LM	179·7	44. 9. 50	L	+ 164406·3	+ 38727·4	7
MN	186·5	94. 51. 40	M	+ 164531·5	+ 38856·3	8
NO	313·5	178. 28. 30	N	+ 164717·3	+ 38840·5	9
OP	242·1	141. [illegible]	O	+ 164725·8	+ 38591·1	10
PQ	710·5	18[illegible]	P	+ 164876·7	+ 38331·8	11
QR	764·2	195. [illegible]	Q	+ 164777·9	+ 37628·2	12
RA	741·5	186. 29. 50	R	+ 165208·7	+ 36997·0	13
HS	18·4	328. 49. 20				
ST	851·5	84. 4. 20	S	+ 165561·7	+ 37165·2	27
TU	64·9	34. 19. 40	T	+ 163038·7	+ 37870·5	26
UV	1635·4	26. 54. 50	U	+ 163075·3	+ 37924·1	31
VK	~~167·9~~ 172·7	~~90. 00. 0~~ 197 6 10	V	+ 163815·6	+ 39382·4	4

Approved

Edmund E. Smith
for Surveyor-General.
3 NOV 1948

S.U & V, planted stones projecting 2 ft
T, planted stone projecting 10"
All other beacons are pieces of iron fencing standard 3ft. long

1000 0 1000 2000 3000 Cape Feet.

Scale 1/10 000

The figure ABCDEFGHJKLMNOPQR

represents 61·0097 Morgen. of land being

Portion 64 (called George Golf Course)
of Part F of the George Town Commonage

situate in the Municipality and Division of George Province of Cape of Good Hope.

Surveyed in June 1948 by me
for Lease Purposes

T. Hassall
Land Surveyor.

This diagram is annexed to

Registrar of Deeds.

The original diagram is No. 1293, 1920 annexed to D/S Geo. & ... 15. 15

S.G. File No. S 8775/15
S.R. No. E. 1730/48
Geo. Tshp. Shts 1+7.
Outline Plan G. 37.
Fig. No. 127
BLDD/1/2 C.S.P.C.T.

MUURKONTRAK-KAART
LEASEHOLD DIAGRAM

KANTOORAFSKRIF
OFFICE COPY

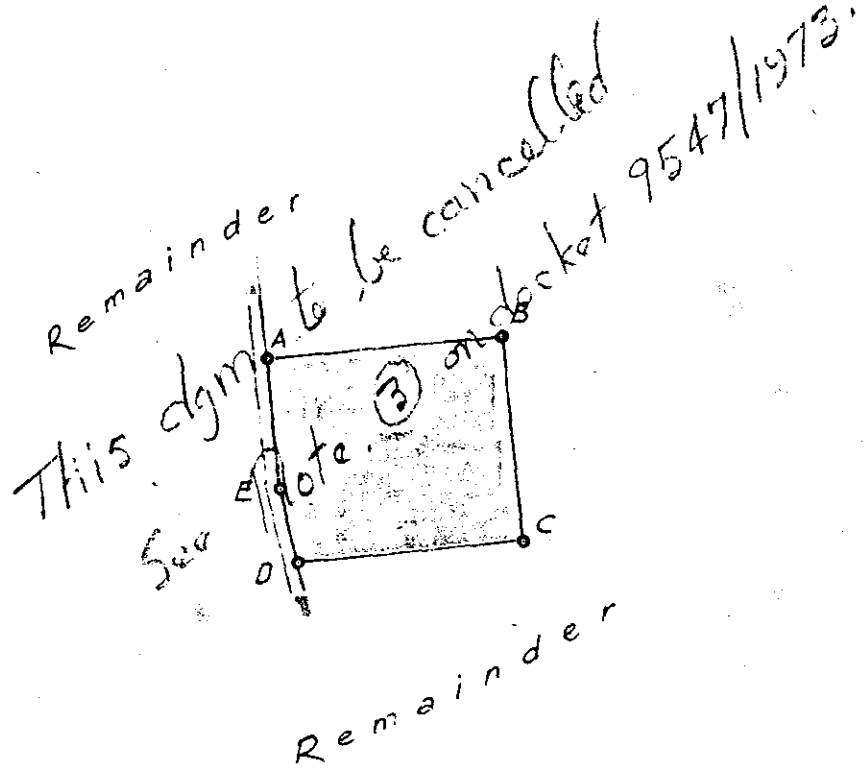
9834/57

S.G. No.

	SIDES Cape Feet		ANGLES OF DIRECTION		SYSTEM L° 25° CO-ORDINATES y	x
			Constant			+ 11900000·00
Ts	AB	1000·10	265 · 4 · 50	A	+ 154877·35	+ 45807·82
Spoor Pad	BC	869·47	355 · 4 · 50	B	+ 153880·93	+ 45722·06
	CD	965·22	85 · 4 · 50	C	+ 153806·37	+ 46538·53
Pad	DE	320·69	168 · 50 · 10	D	+ 154768·03	+ 46671·09
Tc	EA	550·68	175 · 4 · 50	E	+ 154830·12	+ 46356·47
	CF	5562·15	258 · 11 · 30			
Pg	FG	10968·57	56 · 8 · 47	F	+ 148361·90	+ 45450·20
Pg	GD	5586·76	208 · 56 · 0	G	+ 157470·90	+ 51560·50

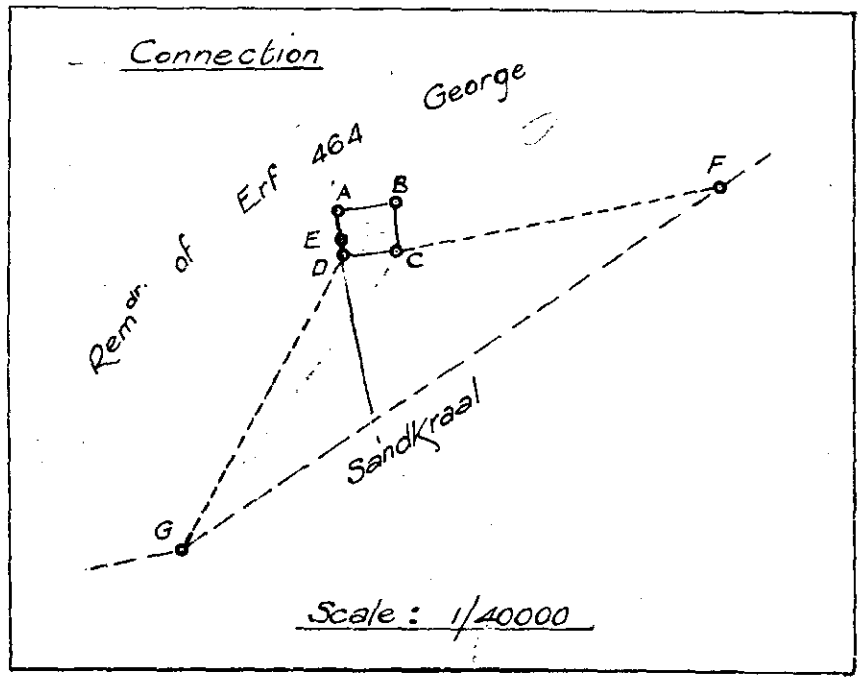
Approved

Surveyor-General.
30-10-1957



Beacons :-

A.B.C. D & E, iron pegs 3 ft. long & 1" dia. proj. 6".
F, planted stone 15"x8" proj. 15".
G, concrete block proj. 18";
truncated pyramid, top 14·5 x 14·5.-



Scale 1 : 10000

The figure A B C D E

represents 10·0000 Morgen of land being :

Portion L 2 portion of Erf 464 George

Situate in the Municipality and Division of GEORGE. Province of Cape of Good Hope.

Surveyed in March 1957 by me

T. J. Pascual.
Land Surveyor.

This diagram is annexed to	The original diagram is	S. G. File No. S 8775/55
	No. 1923, 1920 annexed to D./G. Geo. Q. 15. 15. (G.P. G 37)	S. R. No. E. 1828/57
Registrar of Deeds.		BL-7DD. GP-G37 BL·7DD/Y5 BL·7DD/Y4

SL Servitude

Model, C.T.

HUURKONTRAK-KAART
LEASEHOLD DIAGRAM

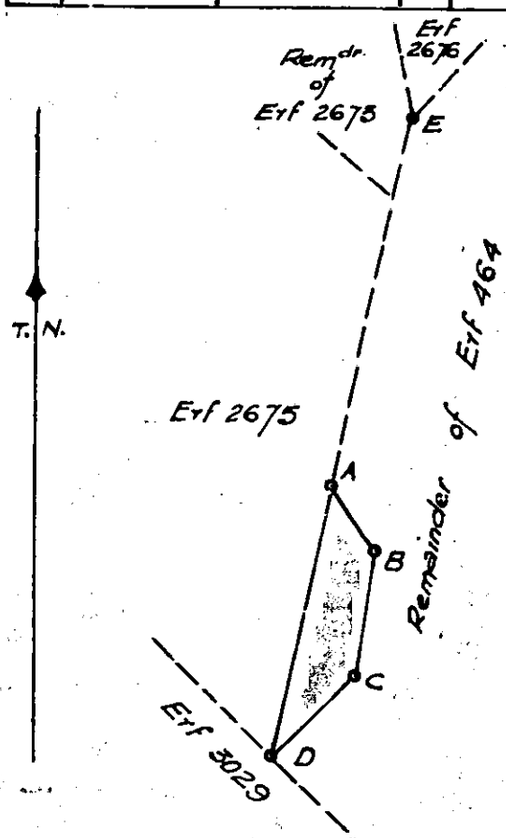
OFFICE COPY

SIDES Cape Feet		ANGLES OF DIRECTION		SYSTEM L° 25° CO-ORDINATES y	x
	84·78	Constants		+1550000·00	+11940000·00
AB	269·27	326·49·40	A	+ 34·44	+ 1892·39
BC	119·84 / 119·94	8·58·10	B	+ 194·41	+ 2117·78
CD	380·95	47·57·50	C	+ 258·32	+ 2524·58
DA	236·76 / 910·77	192·34·40	D	+ 539·77	+ 2781·30
EA	1281·24	12·34·40	E	+ 73·33	+ 690·70

S. G. No. 10055/56

Approved

Surveyor-General.
30-1-1957



Beacons :-
A. B & C, iron pegs 18" long & 5/8" dia.
D & E, rail sections.

Scale 1: 7500

The figure A B C D

represents 1·5838 Morgen of land being

Portion L 8 portion of Erf 464 George

Situate in the Municipality and Division of George Province of Cape of Good Hope.

Surveyed in Nov^r. 1956 by me

Land Surveyor.

This diagram is annexed to D/L. 1/1958

Registrar of Deeds.

The original diagram is No. 1293, 1920 annexed to O/G. Geo. Q. 15-15.

DEDUCTION PLAN G. 35
AFTREKPLAN

S.G. File No. 8775/119
S.R. No. E. 2288/56
BL. 7DD/X. 42+44

Western Cape Government

Department of Environmental Affairs and Development Planning
Shireen Pullen
Directorate: Development Management, Region 3
Shireen.Pullen@westerncape.gov.za | Tel: 044 814 2021
DEADPEIAadmin.George@westerncape.gov.za | Tel: 044 814 2006

REFERENCE: 16/3/3/5/D2/11/0010/25
NEAS REFERENCE WCP/EIA/AMEND/0000960/2025
DATE OF ISSUE: **11 July 2025**

ADDENDUM TO ENVIRONMENTAL AUTHORISATION

APPLICATION FOR THE AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION (REFERENCE: EG12/2/3/1-D2/11-1098/08, ISSUED ON 10 NOVEMBER 2010) FOR THE CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON A PORTION OF ERF 464, GEORGE

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

A. DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants** the amendment of the Environmental Authorisation issued on 10 November 2010 (Ref. No. EG12/2/3/1-D2/11-1098/08) in terms of Part 1 of Chapter 5 of the EIA Regulations, 2014 (as amended).

The Environmental Authorisation issued on 10 November 2010, Ref. No. EG12/2/3/1-D2/11-1098/08 (hereinafter referred to as the "*original EA (as amended))*" is amended as set out below:

1. Section G: Condition 20 of the original EA (as amended) is substituted for the following:

"*20. This Environmental Authorisation is granted for the period from date of issue until **04 September 2028** (validity period), during which period the Holder must ensure that the—*
(a) physical implementation of the authorised listed activities is started with and concluded by the date stipulated for the non-operational aspects;
(b) construction monitoring and reporting requirements are undertaken and submitted to the Competent Authority in time to allow said authority to process such documents timeously;
(c) post construction rehabilitation and monitoring requirements is undertaken and completed; and
(d) environmental auditing requirements are complied with; and that such auditing is finalised in time to allow the competent authority to be able to process the environmental audits timeously within the specified validity period.

Further to the above, the Environmental Authorisation is subject to the following:
20.1. The Holder must start with the physical implementation of all the authorised listed activities prior to 04 September 2026.

Failing which, this Environmental Authorisation shall lapse, unless the Environmental Authorisation is amended in accordance with the relevant process contemplated in the Environmental Impact Assessment Regulations promulgated under the National Environmental Management Act, 1998 (Act no. 107 of 1998)."

2. All other information and conditions contained in the Environmental Authorisation issued on 10 November 2010 (Ref. No. EG12/2/3/1-D2/11-1098/08), remain unchanged and are still in force.

B. REASONS FOR THE DECISION:

In reaching its decision, the Department took, *inter alia*, the following into consideration:

1. The information contained in the application for amendment dated 28 May 2025 and received by this Department on 3 June 2025, including all the relevant information presented to this Department, which formed part of the application for amendment.

2. The Environmental Authorisation issued on 10 November 2010 (Ref. No. EG12/2/3/1-D2/11-1098/08) and subsequent amendments thereof listed as follows:

   2.1 The addendum to the EA issued by this Department on 04 September 2013 (Ref. No.16/3/1/5/D2/19/0014/13)

   2.2 The addendum to the EA issued by this Department on 20 October 2020 (Ref. No. 16/3/3/5/D2/0006/20)

3. The application for amendment in terms of Part 1 of Chapter 5 of the EIA Regulations, 2014 (as amended) entailed a change to the date of commencement specified in Condition 20 of the original EA (as amended) from 4 September 2025 to 4 September 2026.

4. The proposed amendment to the date of commencement will not change the date on which the activity is supposed to have been concluded.

   Whereas the original EA (as amended on 20 October 2020) required that the development's construction phase be concluded within three (3) years from the date on which the first listed activity would be commenced with, but the last day for such commencement was specified as 4 September 2025. The validity period of the original EA (as amended on 20 October 2020) is reckoned to be 4 September 2028.

   The Applicant has indicated that even if the date on which the activities must be commenced with is moved back 12-months (i.e., 4 September 2026), the authorised activities can still be concluded within the validity period which would end on 4 September 2028.

5. The Applicant has motivated that: "*Due to the age of the EA, a freshwater assessment and Water Use License Application investigation was not undertaken and the mitigation measures from that report will be incorporated into the Amended Environmental Management Programme (EMPr) which will be submitted for approval prior to commencement of activities on site. Therefor the applicant requires more time.*"

6. The date on which the activities must be concluded (i.e., 4 September 2028) has also been inserted in Condition 20 as contemplated in Regulation 26(d) of the EIA Regulations, 2014.

7. The application for amendment will not change the scope of the original EA (as amended).

8. The proposed amendment will not result in an increased level or change in the nature of impact where such level or change in nature of impact was not assessed and included in the initial application for Environmental Authorisation.

9. The amendment does not, on its own, constitute a listed activity. The listed activities authorised in the original EA (as amended) are similarly listed in terms of the EIA Regulations, 2014 (as amended).

10. The proposed amendment will not result in the validity period of the Environmental Authorisation being extended. In which case the process to amend the environmental authorisation contemplated in Regulation 32 must be followed.

11. The environment and the rights and interests of interested and affected parties ("I&APs") will not be adversely affected by the decision to amend the original EA / original EA (as amended).

C. CONDITIONS

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

   1.1. notify all registered Interested and Affected Parties ("I&APs") previously registered of—
      1.1.1. the decision reached on the application;
      1.1.2. the reasons for the decision;
      1.1.3. the date of the decision; and
      1.1.4. the date when the decision was issued.

   1.2. draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2025 (as amended) detailed in Section D below;

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

   1.4. provide the registered I&APs with the:
      1.4.1. name of the Holder (entity) of this Environmental Authorisation,
      1.4.2. name of the responsible person for this Environmental Authorisation,
      1.4.3. postal address of the Holder,
      1.4.4. telephonic and fax details of the Holder,
      1.4.5. e-mail address, if any, of the Holder,
      1.4.6. contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the National Appeals Regulations, 2025.

2. The listed activities, including site preparation, must not commence within 20 (twenty) calendar days from the date the applicant notified the registered I&Ps of this decision.

3. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.

D. APPEALS

Appeals must comply with the *National Appeal Regulations, 2025 (Government Notice No. R. 5985 in Government Gazette No. 52269 of 13 March 2025)*. Please take note the provisions of Regulation 1(2) and 1(3) of the *National Appeal Regulations, 2025* when calculating the period of days.

1. The Holder (applicant) of this decision must submit an appeal to the Appeal Administrator, and any registered Interested and Affected Parties (I&AP's) and the decision maker (Competent Authority who issued the decision) within **20 calendar** days from the date this decision was sent by the decision maker.

2. The I&AP's (NOT the holder of this decision) must submit an appeal to the Appeal Administrator, the Holder (applicant) of the decision and the decision maker (Competent Authority who issued the decision) within **20 calendar days** from the date this decision was sent to the registered I&AP's by the Holder (applicant) of the decision.

3. The Holder (applicant) of the decision must—

   3.1. notify all registered I&AP's and affected organs of state of any appeal received, and make the appeal available to them, within **5 calendar days** after the 20-day appeal period ends.

   3.2. Submit proof of this notification to the Appeal Administrator within 5 calendar days after sending the last notification.

4. All appeals submitted must:

   4.1. be in writing in the Appeal Form obtainable from the Departmental website;

   4.2. include supporting documents referred to in the appeal; and

   4.3. include proof of payment of the prescribed non-refundable appeal fee, if prescribed.

5. The applicant, where applicable, the decision-maker, or any person notified under regulation 4 of the *National Appeal Regulations, 2025* may submit a Responding Statement within **20 calendar days** from the date they received the appeal, in the form obtainable from the Department website to the Appeal Administrator and to the appellant, where the appellant is not the applicant.

6. Appeals, Responding Statements and supporting documents must be submitted to the Appeal Administrator by means of one of the following methods:

   6.1. By e-mail: DEADP.Appeals@westerncape.gov.za

   6.2. By **hand** where that person submitting an appeal does not hold an electronic mail account:
   Attention: Mr Marius Venter
   Room 809, 8th Floor Utilitas Building,
   1 Dorp Street, Cape Town, 8001

Note:
You are also requested to submit an electronic copy (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Administrator via e-mail or to the address listed above.

A prescribed appeal form, responding statement form as well as assistance regarding the appeal processes, is obtainable from the relevant website of the appeal authority at URL: http://www.westerncape.gov.za/eadp or the office of the Minister at:
Tel.: (021) 483 3721; or
E-mail: DEADP.Appeals@westerncape.gov.za

Documents to be submitted to the decision-maker (*i.e.*, the Competent Authority that issued the decision) at: Gavin.Benjamin@westerncape.gov.za; and copied to
DEADPEIAadmin.George@westerncape.gov.za

E. DISCLAIMER

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

Your interest in the future of our environment is appreciated.

Yours faithfully

Gavin Benjamin

Digitally signed by Gavin Benjamin
Date: 2025.07.11 08:54:12 +02'00'

_____

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 3)
WCG: DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

DATE OF DECISION: **11 JULY 2025**

FOR OFFICIAL USE ONLY:

ENVIRONMENTAL AUTHORISATION (RECORD OF DECISION)	
REFERENCE NUMBER:	**EG12/2/3/1-D2/11-1098/08**
DATE OF ISSUE:	**10 November 2010**
EA ADDENDUM #1REFERENCE NUMBER:	**16/3/1/5/D2/19/0014/13**
DATE OF ISSUE:	**04 September 2013**
EA ADDENDUM #2 REFERENCE NUMBER:	**16/3/3/5/D2/0006/20**
DATE OF ISSUE:	**20 October 2020**
CASE OFFICER:	Ms. Shireen Pullen | Shireen.Pullen@westerncape.gov.za
EA ADDENDUM #3 REFERENCE NUMBER:	**16/3/3/5/D2/11/0010/25**
NEAS REFERENCE	WCP/EIA/AMEND/0000960/2025
DATE OF ISSUE:	**This decision**
CASE OFFICER:	Ms. Shireen Pullen | Shireen.Pullen@westerncape.gov.za

Western Cape Government

Department of Environmental Affairs and Development Planning
Shireen Pullen
Directorate: Development Management, Region 3
Shireen.Pullen@westerncape.gov.za | Tel: 044 814 2021
DEADPEIAadmin.George@westerncape.gov.za | Tel: 044 814 2006

REFERENCE: 16/3/3/5/D2/11/0010/25
DATE OF ISSUE: **11 July 2025**

The Municipal Manager
George Municipality
PO Box 19
GEORGE
6530

Attention: Mr.J. Koegelenberg Email: jkoegelenberg@george.gov.za

NOTICE OF DECISION: APPLICATION FOR AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION (REFERENCE NO: EG12/2/3/1-D2/11-1098/08, ISSUED ON 10 NOVEMBER 2010) FOR THE CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON A PORTION OF ERF 464, GEORGE

1. With reference to the above application, the Department hereby notifies you of its decision to **grant** the amendment to the Environmental Authorisation issued on 10 November 2010 (reference no.: EG12/2/3/1-D2/11-1098/08), attached herewith, together with the reasons for the decision.

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

3. Your attention is drawn to Chapter 2 of the National Appeal Regulations, 2025, which prescribes the appeal procedure to be followed. This procedure is summarized in the attached addendum to the Environmental Authorisation.

Your interest in the future of our environment is appreciated.

Yours faithfully

Gavin Benjamin
Digitally signed by Gavin Benjamin
Date: 2025.07.11 08:53:50 +02'00'

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 3)
WCG: DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

Copied to:
Mr. Michael Bennett Sharples Environmental Services cc Email: michael@sescc.net

Department of Environmental Affairs and Development Planning
Development Management (Region 3)
Shireen Pullen@westerncape.gov.za
Tel: +27 44 805 8600
Private Bag X6509, George, 6530
3rd Floor, Rentzburghof Building, Courtenay Street, George, 6529

REFERENCE: 16/3/3/5/D2/0006/20
ENQUIRIES: Shireen Pullen
DATE OF ISSUE: **20 OCTOBER 2020**

The Municipal Manager
George Municipality
PO Box 19
GEORGE
6530

Attention: Ms. N. Gqaleni

Tel: (044) 801 9038
Email: Ngqaleni@george.gov.za

APPLICATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): APPLICATION FOR AMENDMENT OF THE ENVIRONMENTAL AUTHORIZATION ("EA") ISSUED ON 10 NOVEMBER 2010 FOR THE CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON ERF 464, GEORGE

With reference to your application for the amendment of the environmental authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, find below the amendment to the Environmental Authorisation in respect of this application.

ADDENDUM TO ENVIRONMENTAL AUTHORISATION

A. DECISION

1. By virtue of the powers conferred on it in terms of Regulation 30 of the Environmental Impact Assessment Regulations, 2014 (as amended), the Department has decided to amend the Environmental Authorization issued issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, as follows –

   1.1 Condition 20 of the environmental authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, must read as follows:

   "The activities must commence on or before **4 September 2025**. If commencement of the activities does not occur within this period, the authorisation lapses and a new application for environmental authorisation must be submitted and authorisation be obtained, before the activity may be undertaken."

*The development's construction phase must be concluded within **three (3) years** from the date on which the first listed activity is commenced with"*

2. All other information contained in the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, remains unchanged and is still in force.

B. REASONS FOR THE DECISION:

In reaching its decision, the Department took, *inter alia*, the following into consideration:

1. The application is for a non-substantive amendment to the Environmental Authorisation.

2. The environment and the rights and interests of other parties are not likely to be adversely affected by this decision to amend the Environmental Authorisation.

3. The application for amendment is only for the extension of the validity period and the fact that the approved development will not change in any other way, it is understood that the level and nature of the impacts will remain unchanged.

4. The motivation submitted by the applicant, which explained the reasons for the delay in implementing the EIA listed activities states that the Municipality had budget constraints and unavailability of grant funding. According to the applicant, the infrastructure for the public transport service is funded mainly from National and Provincial grant funding and infrastructure development has to be phased in as and when funds become available.

5. The fact that the facility is needed to provide an essential public transport service to the people living in George. Should this amendment not be granted, the environmental authorisation will lapse and the transport situation in George will not improve.

6. All the relevant information presented to this Department, which formed part of the application for amendment.

C. CONDITIONS

1. The applicant must, in writing, within **14 (fourteen)** calendar days from the date of the Department's decision –
   1.1 notify all registered interested and affected parties registered in the previous EIA process of –
      1.1.1 the outcome of the application;
      1.1.2 the reasons for the decision;
      1.1.3 the date of the decision; and
      1.1.4 the date of issue of the decision;

   1.2 draw the attention of all registered interested and affected parties registered in the previous EIA process to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, 2014 (as amended) in section D below;

   1.3 draw the attention of all registered interested and affected parties registered in the previous EIA process to the manner in which they may access the decision.

2. The holder of the environmental authorisation must within thirty (30) calendar days of the issue of this amendment decision, provide the competent authority with written proof of compliance with condition 1 above.

D. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations 2014 (as amended).

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

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

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

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

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

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

    By post: Western Cape Ministry of Local Government, Environmental Affairs and Development Planning
    Private Bag X9186
    CAPE TOWN
    8000

    By facsimile: (021) 483 4174; or

    By hand: Attention: Mr Marius Venter (Tel: 021 483 3721)
    Room 809
    8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

    Note: For purposes of electronic database management, you are also requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement

and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to DEADP.Appeals@westerncape.gov.za.

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

E. DISCLAIMER

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

Your interest in the future of our environment is appreciated.

Yours faithfully



MR. GAVIN BENJAMIN
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 3)
DATE OF DECISION**: 20 OCTOBER 2020**

Western Cape Government
Environmental Affairs and Development Planning

Land Management
(Region 3)

REFERENCE: 16/3/1/5/D2/19/0014/13
ENQUIRIES: Shireen Pullen
DATE OF ISSUE: 2013 -09- 04

The Municipal Manager
George Municipality
PO Box 19
GEORGE
6530

Attention: Mr. H. Basson

Tel: (044) 801 9260
Fax: (044) 874 3862

APPLICATION FOR AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ("EA") ISSUED ON 10 NOVEMBER 2010 FOR THE CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON ERF 464, GEORGE

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998, as amended) and the Environmental Impact Assessment Regulations, 2010 ("NEMA EIA Regulations) the competent authority herewith grants the amendment of the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, find below the Environmental Authorisation in respect of this application.

ENVIRONMENTAL AUTHORISATION

A. DECISION

1. By virtue of the powers conferred on it in terms of Regulation 42 of the Environmental Impact Assessment Regulations, 2010, the Department has decided to amend the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08 as follows –

   1.1 Condition 20 of the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08 must read as follows:

   "This activity must commence within a period of **7 years** from the issue of this EA. If commencement of the activities does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken."

1.2 All the conditions contained in the Environmental Authorisation issued on 10 November 2010 still remain in force.

B. REASONS FOR THE DECISION:

In reaching its decision, the Department took, *inter alia,* the following into consideration:

1. The application is for a non-substantive amendment to the environmental authorisation.
2. The application is for the amendment of the validity period of the Environmental Authorisation issued on 10 November 2010 and is therefore deemed to be a non-substantial amendment to the environmental authorisation.
3. The environment and the rights and interests of other parties are not likely to be adversely affected by the decision to amend the validity period of the environmental authorisation.
4. The application to amend the authorisation will not result in any significant changes to the receiving environment and the anticipated impacts will remain the same, as determined for the previous authorisation.
5. The applicant motivates that George Municipality could not commence with the development to date as they do not have sufficient financial resources to implement the construction of the facility. According to the applicant, the infrastructure for the public transport service is funded mainly from National and Provincial grant funding and infrastructure development has to be phased in as and when funds become available.
6. Should this amendment not be granted, the environmental authorisation will lapse and the transport situation in George will not improve.
7. All information presented to the Department was taken into account in the Department's consideration of the application.

In view of the above, this Department is satisfied that, subject to compliance with the conditions contained in the Environmental Authorisation issued on 10 November 2010, Reference Number: EG12/2/3/1-D2/11-1098/08, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels.

C. CONDITIONS

1. The applicant must, in writing, within **12 (twelve)** calendar days from the date of the Department's decision –
   - 1.1 notify all registered interested and affected parties of –
     - 1.1.1 the outcome of the application;
     - 1.1.2 the reasons for the decision;
     - 1.1.3 the date of the decision; and
     - 1.1.4 the date of issue of the decision;
   - 1.2 draw the attention of all registered interested and affected parties to the fact that an appeal may be lodged against the decision in terms of Chapter 7 of the Environmental Impact Assessment Amendment Regulations, 2010 detailed in section D below;
   - 1.3 draw the attention of all registered interested and affected parties to the manner in which they may access the decision, and
   - 1.4 publish a notice in the newspapers contemplated in regulation 54(2)(c) and (d), and which newspaper was used for the placing of advertisements as part of the Public Participation Process, that –

1.4.1 informs all interested and affected parties of the decision;
1.4.2 informs all interested and affected parties where the decision can be accessed; and
1.4.3 informs all interested and affected parties that an appeal may be lodged against the decision in terms of Chapter 7 of the Regulations;

2. One week's written notice must be given to the Directorate: Land Management (Region 3), before continuation of construction activities. The said notice must also include proof of compliance with Condition 1 described in Section C of this Addendum to Environmental Authorisation.

D. APPEALS:

Appeals must comply with the provisions contained in Chapter 7 of the Environmental Impact Assessment Regulations, 2010.

1. An appellant must –
   1.1. submit a notice of intention to appeal to the Minister, within 20 (twenty) calendar days of the date of the decision;
   1.2. submit the appeal within 30 (thirty) calendar days after the lapsing of the 20 (twenty) calendar days contemplated in regulation 60(1), for the submission of the notice of intention to appeal; and
   1.3. within 10 (ten) calendar days of having lodged the notice of intention to appeal, provide each person and organ of state registered as an interested and affected party in respect of the application, or the applicant, with –
      1.3.1. a copy of the notice of intention to appeal form; and
      1.3.2. a notice indicating where and for what period the appeal submission will be made available for inspection by such person, organ of state, or applicant, on the day of lodging it with the Minister, and that a responding statement may be made on the appeal within 30 (thirty) calendar days from the date the appeal submission was lodged with the Minister.

2. A person, organ of state or applicant who submits a responding or answering statement in terms of regulation 63 must within 10 (ten) calendar days of having submitted the responding or answering statement, serve a copy of the statement on the other party.

3. If the person, organ of state or applicant fails to meet a timeframe with respect to the requirements as detailed above, the person, organ of state or applicant must immediately submit a written explanation to the Ministry providing a concise explanation for the non-compliance.

4. All notice of intention to appeal and appeal forms must be submitted by means of one of the following methods:

By post: Western Cape Ministry of Local Government, Environmental Affairs and Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174; or
Or By hand: Attention: Mr Jaap de Villiers (Tel: 021-483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

A prescribed notice of intention to appeal form and appeal form as well as assistance regarding the appeal processes is obtainable from the office of the Minister at: Tel. (021) 483 3721, E-mail jaap.deVilliers@westerncape.gov.za or URL http://www.westerncape.gov.za/eadp

E. DISCLAIMER

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

Your interest in the future of our environment is appreciated.

Yours faithfully

MR. KOBUS MUNRO
DIRECTOR: LAND MANAGEMENT (REGION 3)

DATE OF DECISION: 3·9·2013

Copy: Mr. S. Kleinhans (Sharples Environmental Services cc) Fax: (044) 874 5953

DEPARTMENT of
ENVIRONMENTAL AFFAIRS
& DEVELOPMENT PLANNING
Provincial Government of the Western Cape

Directorate: Land Management (Region 1)
wroets@pgwc.gov.za
tel: +27 21 483 3633 fax: +27 21 483 3722
Utilitas Building, 1 Dorp Street,
P/Bag x9086, Cape Town, 8000
www.capegateway.gov.za

REFERENCE: **EG12/2/3/1-D2/11-1098/08**
ENQUIRIES: Dr W Roets
DATE OF ISSUE: 10 NOV 2010

Municipal Manager
George Municipality
PO Box 19
GEORGE
6530

Attention: Mr H Basson

Tel: (044) 801 9260
Fax: (044) 873 3862

Dear Sir

APPLICATION: **CONSTRUCTION OF A BUS DEPOT AND FUEL BAY ON ERF 464, GEORGE:**

With reference to your application, find below the environmental authorisation hereinafter referred to as the "environmental authorisation" ("EA") in respect of this application.

ENVIRONMENTAL AUTHORISATION

A. DESCRIPTION OF ACTIVITY:

The proposal entails the construction of a bus depot on a portion of remainder of Erf 464 which will not exceed 10 ha in size, in order to accommodate two components, namely: 1) parking space for approximately 200 buses, cleaning and maintenance facilities, fuel bay, offices and workshops, and 2) a trade school for the bus industry.

All the above proximate to the layout plan in Appendix A contained in the Environmental Impact Report (EIR) by Sharples Environmental Services.

The following activities are identified in Government Notice No. R386 of 21 April 2006:
Activity Numbers: **1k(i) & (ii), 15 and 16a.**
Activities Description:
Activity 1: The construction of facilities or infrastructure, including associated structures or infrastructure, for –
k the bulk transportation of sewage and water, including storm water, in pipelines with -
(i) an internal diameter of 0.36 metres or more;
(ii) or a peak throughput of 120 litres per second or more;

Activity: 15 The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.

Activity 16: The transformation of undeveloped, vacant or derelict land to –

(a) establish infill development covering an area of 5 hectares or more, but less than 20 hectares;

The following activities are identified in Government Notice No. R387 of 21 April 2006:

Activity Number: **3.**

Activity Description:

Activity 3: The construction of filling stations, including associated structures and infrastructure, or any other facility for the underground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin.

hereinafter referred to as "the activities"

B. LOCATION:

The bus depot will be located on a portion of the remainder of Erf 464, a currently undeveloped area west of Borchards, in the George Industrial area. The property is accessible via PW Botha Boulevard, which is part of the future George Mobility Strategy routing system. The depot will be located to the south of PW Botha Boulevard, border onto Pacaltsdorp Industrial area, and onto the northern side of the N2 National Road.

Co-ordinates:
Longitude (E): 22° 27' 27.35" Latitude (S): 33° 59' 15.46"
SG21 Digit code: C02700020000046400000

hereinafter referred to as "the property"

C. APPLICANT:

C/0 Mr H Basson
George Municipality
PO Box 19
GEORGE
6530
Tel: (044) 801 9260
Fax: (044) 873 3862

D. ENVIRONMENTAL ASSESSMENT PRACTITIONER:

C/O Kirstin Botha
Sharples Environmental Services
PO Box 9087
George
6530
Tel: (044) 873 4923
Fax: (044) 874 5953

E. SITE VISIT(S):

The site was visited on 29 October 2010 by Dr W Roets. Together with the information submitted in the application documentation (i.e. photographs and maps of the site) and relevant information contained in the Departmental information base, it was considered sufficient to provide adequate information on the nature of the receiving environment.

F. DECISION:

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2006 the Department hereby authorises the activities described above.

The applicant has applied for Activity 18 listed in Government Notice No. R386 of 21 April 2006, being: *"The subdivision of portions of land 9 hectares or larger into portions of 5 hectares or less."* but as the new Environmental Impact Assessment Regulations, 2010 came into effect on 02 August 2010 this activity is no longer listed anymore and is regarded as being withdrawn.

The granting of this environmental authorisation is subject to the conditions set out below.

G. CONDITIONS OF AUTHORISATION:

1. The activity, including site preparation, may not commence within 20 (twenty) days after receipt of this environmental authorisation. In the event that an appeal notice and subsequent appeal is lodged with the competent authority, the effect of this environmental authorisation will be suspended until such time as the appeal is decided.

2. One week's notice, in writing, must be given to the Directorate: Land Management (Region 1), (hereinafter referred to as "this Directorate"), before commencement of construction activities.

2.1. Such notice shall make clear reference to the site location details and reference number given above.
2.2. The said notice must also include proof of compliance with the following conditions described herein:
Conditions: 1, 6, 7 and 9.

3. The mitigation measures and recommendations as detailed in the Environmental Impact Report ("EIR") by Sharples Environmental Services must be adopted and implemented.

4. The proposed storm water management must be implemented as contained in the EIR and Environmental Management Programme (EMP), and must include the installation of the oil water separators (OWS) as contained in Appendix 10 of the EIR.

5. Should any heritage remains be exposed during excavations, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999)). Heritage remains uncovered or disturbed during earthworks must not be disturbed further until the necessary approval has been obtained from Heritage Western Cape.
5.1. If any archaeological remains (including but not limited to fossil bones and fossil shells, coins, indigenous and/or colonial ceramics, any articles of value or antiquity, marine shell heaps, stone artefacts and bone remains, structures and other built features, rock art and rock engravings) are discovered during construction they must immediately be reported to Heritage Western Cape and must not be disturbed further until the necessary approval has been obtained from Heritage Western Cape.
5.2. If any graves or unmarked human burials are discovered, they must be treated with respect and SAHRA must be notified immediately and must not be disturbed further until the necessary approval has been obtained from SAHRA. An archaeologist must be contracted to remove the remains at the expense of the developer.

6. The Environmental Management Programme ("EMP") submitted as part of the application for environmental authorisation must be amended. The contents of such an EMP must -
6.1. be implemented;
6.2. meet the requirements outlined in Section 24N (2) & (3) of the National Environmental Management Act, 1998 (Act no 107 of 1998, as amended) ("NEMA") and regulation 34 of the Environmental Impact Assessment Regulations 2006;
6.3. detail an integrated waste management approach that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate.

6.3.1. Any solid waste must be disposed of at a landfill licensed in terms of section 20 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) or the National Environmental Management: Waste Act (Act No. 59 of 2008).

6.4. incorporate the conditions of authorisation given in this Environmental Authorisation

6.5. address, but not be limited to, the demarcation of the site, the erection of camp site for construction teams, establishments of working and storage areas, environmental awareness training of employees, protection of flora, fauna, natural features and any archaeological material of significance that may be discovered, cultural issues (e.g. protection of archaeological artefacts), landscaping and revegetation of indigenous plants and trees erosion prevention methods, refuse and waste management, dust and noise control, effluent and storm water management, materials used, the handling, storage and transport of fertilizers or other hazardous materials, site rehabilitation and/or revegetation, fencing, fire prevention measures, the complete removal of all alien invasive plants and fire prevention measures, pollution control measures, monitoring and reporting, penalties, claims and damages.

6.6. translate mitigation measures contained in the EIR into measurable actions that can be included in a monitoring protocol with specific time frames;

6.7. specify reporting on the monitoring to enable verification of the effectiveness of the environmental management objectives and actions and to be able to respond to unforeseen events;

6.8. be included in all contract documentation for the construction phase of the development;

6.9. describe the level and type of competency required of the Environmental Control Officer, ("ECO");

6.10. define and allocate the roles and responsibilities of the ECO referred to above, and the Environmental Site Agent where applicable;

6.11. determine the frequency of site visits;

7. The holder of the authorisation must appoint a suitably experienced Environment Control Officer (or Site Agent where appropriate) for the construction phase of the development before commencement of any land clearing or construction activities to ensure that the mitigation/rehabilitation measures and recommendations referred to in this authorisation are implemented and to ensure compliance with the provisions of the EMP.

8. The holder of the authorisation must submit an Environmental Audit Report, ("audit report") to this Directorate (six months) after construction has been completed and also one year after the commencement of operation.

8.1. The audit report must indicate the date on which the construction was completed, and detail compliance with the conditions of this authorisation.

8.2. This Directorate may require remedial action should the audit report reflect that rehabilitation is inadequate.

8.3. If the audit report is not submitted, this Directorate may give 30 days written notice and may have such an audit undertaken at the expense of the applicant and may authorise any person to take such measures necessary for this purpose.

9. The applicant must in writing, within 12 (twelve) calendar days of the date of the decision on the application –

9.1. notify all registered interested and affected parties of –

9.1.1. the outcome of the application;

9.1.2. the reasons for the decision; and

9.1.3. the date of the decision;

9.2. inform all registered interested and affected parties of the appeal procedure provided for in Chapter 7 of the Regulations.

9.3. inform all registered interested and affected parties of the manner in which they can access the decision.

9.4. Advise all registered interested and affected parties that, should they wish to appeal, they must lodge a notice of intention to appeal with the Minister within 20 (twenty) days of date of the Department's decision and must submit their appeal within 30 (thirty) days after the lapsing of the 20 (twenty) days contemplated in regulation 60(1), for the lodging of the notice of intention to appeal.

9.5. Inform all registered interested and affected parties that the prescribed Notice of Intention to Appeal form and Appeal form are obtainable from the Minister's office at telephone number (021) 483 3721, or 483 3915, email jedevill@pgwc.gov.za or via the URL http://www.capegateway.gov.za/eadp.

9.6. Inform all registered interested and affected parties that should they wish to appeal, the appellant must serve on the applicant, within 10 (ten) days of having submitted the notice of intent to appeal with the Minister, a copy of the Notice of Intention to Appeal form as well as a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.

9.7. If the applicant should decide to appeal the decision, the applicant must-

9.7.1. lodge a notice of intention to appeal with the Minister, within 20 (twenty) days after the date of the decision.

9.7.2. submit the appeal within 30 (thirty) days after the lapsing of the 20 (twenty) days contemplated in regulation 60(1), for the lodging of the notice of intention to appeal.

9.7.3. within 10 (ten) days of having lodged the notice of intention to appeal, provide each person and organ of State registered as an interested and affected party in respect of the application, with –

9.7.3.1. a copy of the Notice of Intention to appeal form;

9.7.3.2. a notice indicating where and for what period the appeal submission will be made available for inspection by such person or organ of State, on the day of lodging it with the Minister, and that a responding statement may be made on the appeal within 30 (thirty) days from the date the appeal submission was lodged with the Minister. A person, organ of state or applicant who submits a responding statement in terms of regulation 63(1) must within 10 (ten) days of having submitted the responding statement, serve a copy of the statement on the appellant.

10. The holder of the authorisation shall be responsible for ensuring compliance with the conditions by any person acting on his behalf, including but not limited to, an agent, sub-contractor, employee or any person rendering a service to the holder of the authorisation.

11. Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.

12. The holder of the authorisation must notify this Directorate and any other relevant authority, in writing, within 24 hours thereof if any condition of this authorisation is not adhered to.

13. A copy of this authorisation must be kept at the property where the activities will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.

14. Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/ or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.

15. Non-compliance with a condition of this authorisation may result in the withdrawal of the authorisation and may render the holder liable for criminal prosecution.

16. This Department must be notified, within 30 days thereof, of any change of ownership and/or project developer. A request for the transfer of the rights and

obligations contained in this environmental authorisation must be submitted in the following way:

16.1. The current holder of the environmental authorisation must submit an original signed letter to the Department stating that he/she wish the rights and obligations contained in this environmental authorisation to be transferred, provide the Department with (a) confirmation that the environmental authorisation is still in force (i.e. validity period have not yet expired or the activity(ies) was lawfully commenced with), (b) the contact details of the person to whom the rights and obligations are to be transferred, and (c) the reasons for the requested transfer.

16.2. The person to whom the rights and obligations are to be transferred must also submit an original signed letter to the Department (a) accepting the rights and obligations contained in this environmental authorisation and (b) must indicate that he/she has the ability to implement the mitigation measures and to comply with the conditions of authorisation.

If the transfer is found to be appropriate by the Department, the Department will issue a letter confirming the transfer of the rights and obligations contained in this environmental authorisation.

17. Departmental officials shall be given access to the property referred to in B above for the purpose of assessing and/or monitoring compliance with the conditions contained in this environmental authorisation, at all reasonable times.

18. Only the activity which is authorised may be carried out at the property indicated above.

19. Notwithstanding this authorisation, the holder of the authorisation must still comply with any other statutory requirements that may be applicable to the undertaking of the activity.

20. This activity must commence within a period of **3 years** from the date of issue of this EA. If commencement of the activities does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.

H. REASONS FOR THE DECISION:

All the following information that was available to the Department was taken into account in the Department's consideration of the application -

a) The information contained in the Environmental Impact Report ("EIR") by Sharples Environmental Services;
b) The comments received from interested and affected parties as included in the EIR and response documentation;
c) Relevant information contained in the Departmental information base including -

- Guideline for determining the scope of specialist involvement in EIA processes, June 2005.
- Guideline for the review of specialist input in the EIA process, June 2005.
- Guideline for involving biodiversity specialists in the EIA process, June 2005.
- Guideline for involving heritage specialists in the EIA process, June 2005.
- Guideline for environmental management plans, June 2005.
- Guideline on Alternatives, May 2009
- Guideline on Public Participation, May 2009

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

A summary of the issues which, in the Department's view, were of the most significance is set out below.

1. Environment:

The proposed construction will occur within Erf 464 which is currently an undeveloped area west of Borchards in the George Industrial sector. The land slopes gently in an easterly direction. The site envisaged for the Bus Depot is highly transformed, consisting of mostly pastoral grasses like *Eragrostis superba, Eragrostis curvula, Themeda triandra, Lolium perrenne, Paspalum dilatatum, Setaria sphacelata* and *Helicotrichon tugidulum*, as well as the alien Kikuyu grass (*Pennisetum clandestinum*). The undulating plains are also infested with alien vegetation such as black wattle (*Acacia mernsii*) on the sloping areas. A small, localized drainage area, dominated by one *Restio* species and exhibiting no obvious additional diversity, also occurs on site.

The sides of the plateau slopes steeply towards the natural drainage lines on the north-eastern and south-western perimeters of the proposed property. The site shows evidence of former vegetation clearing and ploughing and is currently being used for dumping of general waste as well as serving as a thoroughfare for pedestrians between the industrial area and Borchard's residential area. According to the EIR the site has a low sensitivity value.

2. Need and Desirability:

According to the EIR the transformation of the public transport system and the provision of associated infrastructure, such as the Bus Depot, were identified as a key component of realizing the improvement of the transportation situation in George, which would ultimately contribute to improved social functioning. Central to the provision of a scheduled public transport service would be a bus depot that is used to park or store vehicles not required for scheduled operations.

The George Mobility Strategy and associated infrastructure, such as the proposed Bus Depot, form part of these forward planning initiatives aimed at

improving service provision to the general public with specific regard to an improved public transport infrastructure and the implementation of scheduled and predetermined routed public transport. It is expected that this will lead to improved social integration, especially between the poorer residential areas to employment, education and other social activity areas. All areas of George (urban and rural) will be serviced, while the quality of service delivery is aimed at attracting all segments of the community.

3. Socio-economic:

According to the EIR the population growth per annum for George is around 4.6% for the period 1996 to 2001, which is much higher than the average population growth rate of 2.7% for the Western Cape Province. Estimates put the 2015 population in George at between 200 000 - 240 000 people. Based on the 2001 census data, in the greater George area, the majority of the population (50%) is coloured people, followed by black people (27%) and then white people (22%).

In terms of access to modes of transportation, most of the farm owners on the outskirts of George have access to private transport, including those of the luxury residential and golf estates further south. Residents of Herold's Bay, further southwest of George also generally have access to private transport. A far lower proportion of residents from Pacaltsdorp and especially Thembalethu have access to private transport and many currently rely on taxis, since the public transport system is virtually non-existent i.e. no public bus or rail routes exist to service these areas.

The areas that will mainly be affected, from an economic perspective, by the proposed Bus Depot, are the areas of Borcherds, Conville, Parkdene and Thembalethu, which are poorer neighbourhoods. This is reflected in the demography of the relevant population groups in these areas. The greatest challenge lies in overcoming poverty and racial and economic segregation by addressing unemployment.

George's location along the N2 National Road, between Cape Town and Port Elizabeth as well as its position at the junction inland to Oudtshoorn along the N9/N12 means that George is ideally positioned to serve as a regional centre for trade and distribution. The economy is further strengthened by the in-migration of investors and businesses from further away, wishing to cater to the growing population. With a growing economy and an influx of people more pressure will be placed on roods infrastructure and public transport. The result is congestion, which could have a potential impact on economic growth. Accordingly, increased road usage and problems associated with this can only be addressed by improving the road network and the public transport system.

4. Cultural historic:

Following an investigation of the nature of the proposed development the EIR concluded that the overall benefits to local communities in terms of the sustainable

development of the greater George area, it was not considered necessary to undertake further heritage investigations for the proposal. Heritage Western Cape have issued a record of decision in this regard, attached in Appendix 6 of the EIR.

5. **Policy: Regional/planning context:**
The area (Erf 464) where the bus depot will be located is surrounded by urban development, and earmarked in the George Spatial Development Framework (GSDF) and the George East Spatial Development Plan (GSE SDP) for a mixture of uses such as the medium and low income housing, commercial and industrial uses. It is situated along PW Botha Boulevard which is a major distributor road through the industrial area, and which is planned to be extended to join the road to the airport. A new main access road to Pacaltsdorp, being an extension of Rand Street, will run through the area.

Erf 464 is currently zoned undetermined and the bus depot will be sited on a portion of remainder of the Erf.

6. **NEMA Principles/NEMA section 24(7):**
The National Environmental Management Principles (set out in section 2 of the National Environmental Management Act ("NEMA"), 1998 (Act No. 107 of 1998), which apply to all the actions of all organs of state, serve as a guideline by reference to which any organ of state, must exercise any function when taking any decision, and must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment. The NEMA Principles provides for *inter alia*:
   - The effects of decisions on all aspects of the environment to be taken into account;
   - The consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
   - the co-ordination and harmonisation of policies, legislation and actions relating to the environment; and
   - the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures.

All these aspects have been addressed in this proposal.

7. **Cumulative effects of the activity:**
The proposed development will have a significant positive cumulative impact in terms socio-economic spin-offs in the local economy of George and the surrounding area. This will include indirect and disposable income, indirect job and skills opportunities which will be created. The proposed development will also contribute towards services provision and bulk services infrastructure by the Local Authority.

The increased stormwater that will be generated on the parking areas may result in erosion of the drainage lines on the site. However, this impact can be effectively mitigated through the proposed mitigation measures contained in the EIR.

The fuel bay may cause pollution of ground- and surface water, but this will be minimized by the proposed mitigation measures and the findings of the geohydrological assessment.

8. Alternatives:

According to the EIR two alternative sites were assessed. However, the required size of the site consisting of both the parking space for ± 200 busses with associated infrastructure and the training facility will be 5-10 ha and made the preferred site the better option. A land-use alternative in terms of the building footprint occupied is that the Bus Depot will only consist of the parking space with associated infrastructure ensuring that no more than 5ha of space is occupied. Although this alternative will have a smaller footprint, it may pose problems with regards to training requirements and determining when and where such training could occur. This could pose to be a setback for the George Mobility strategy as a whole.

Site Alternative B is situated to the north-east of the preferred alternative directly across the road from businesses. This alternative site currently has no access point and its proximity to businesses across the road could result in traffic congestion. The topography on this site is also very steep, and would not make constructing parking space for ±200 busses and the required associated infrastructure viable.

9. Public Participation:

The public participation process included all registered interested and affected parties, relevant government departments, CapeNature and the local authority. An advertisement was also placed in the local newspaper and site notices were put up to inform all interested and affected parties on the proposal and process to be followed. All issues raised have been adequately addressed and concerns by interested and affected parties were favourable addressed and recorded in the EIR.

The following authorities were consulted: CapeNature; Department of Health; Relevant Departments within Eden District Municipality, Department of Water Affairs; Department of Fisheries and Forestry, Relevant Local Authority Departments and relevant councillors.

In view of the above, this Directorate is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental

Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels. The application is accordingly granted.

I. APPEAL:

Appeals must comply with the provisions as outlined in Chapter 7 of the Regulations.

If the applicant should decide to appeal, the applicant must, *in terms of*, regulation 60(1), lodge a notice of intention to appeal with the Minister, within 20 (twenty) days after the date of the decision, and must within 10 (ten) days of having submitted the notice contemplated in regulation 60(1), provide each person and organ of State registered as an interested and affected party in respect of the application with a copy of the Notice of Intention to Appeal; a notice indicating where and for what period the appeal submission will be made available for inspection by such person or organ of State on the day of lodging it with the Minister, and indicate that a responding statement may be made on the appeal within 30 (thirty)days from the date the appeal submission was lodged with the Minister.

A person, organ of state or applicant who submits a responding statement in terms of regulation 63(1) must within 10 (ten) days of having submitted the responding statement, serve a copy of the statement on the appellant.

If the applicant should decide to appeal, the applicant must submit the appeal within 30 (thirty) days after the lapsing of the 20 (twenty) days contemplated in regulation 60(1), for the lodging of the notice of intention to appeal.

Should any other person, or an interested and affected party, decide to appeal, they must, in terms of, regulation 60(1), lodge a notice of intention to appeal with the Minister, within 20 (twenty) days after the date of the decision. An appeal must be submitted within 30 (thirty) days after the lapsing of the 20 (twenty) days contemplated in regulation 60(1).

The appellant must provide the applicant, within 10 days of having lodged the notice contemplated in regulation 60(1), with a copy of the notice referred to in regulation 60(1), and a notice indicating where and for what period the appeal submission will be available for inspection by the applicant. A responding statement may be made on the appeal within 30 (thirty) days from the date the appeal submission was lodged with the Minister.

The prescribed Notice of Intention to Appeal form and Appeal form are obtainable from the Minister's office, as well as assistance regarding the appeal processes, at telephone number (021) 483 3721, or 483 3915, email jedevill@pgwc.gov.za or via the URL http://www.capegateway.gov.za/eadp.

Department of Environmental Affairs & Development Planning
Directorate: Land Management (Region 1)

All Notice of Intention to Appeal and Appeal forms must be submitted by means of one of the following methods:

By post: Western Cape Ministry of Local Government, Environmental Affairs and Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174; or

By hand: Attention: Mr. Jaap de Villiers
9th floor Utilitas Building
1 Dorp Street
CAPE TOWN
8001

Provincial Government, Local Authority or committees appointed in terms of the conditions of the application or any other public authority or organisation shall not be held responsible for any damages or losses suffered by the developer or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the developer with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Your interest in the future of our environment is greatly appreciated.

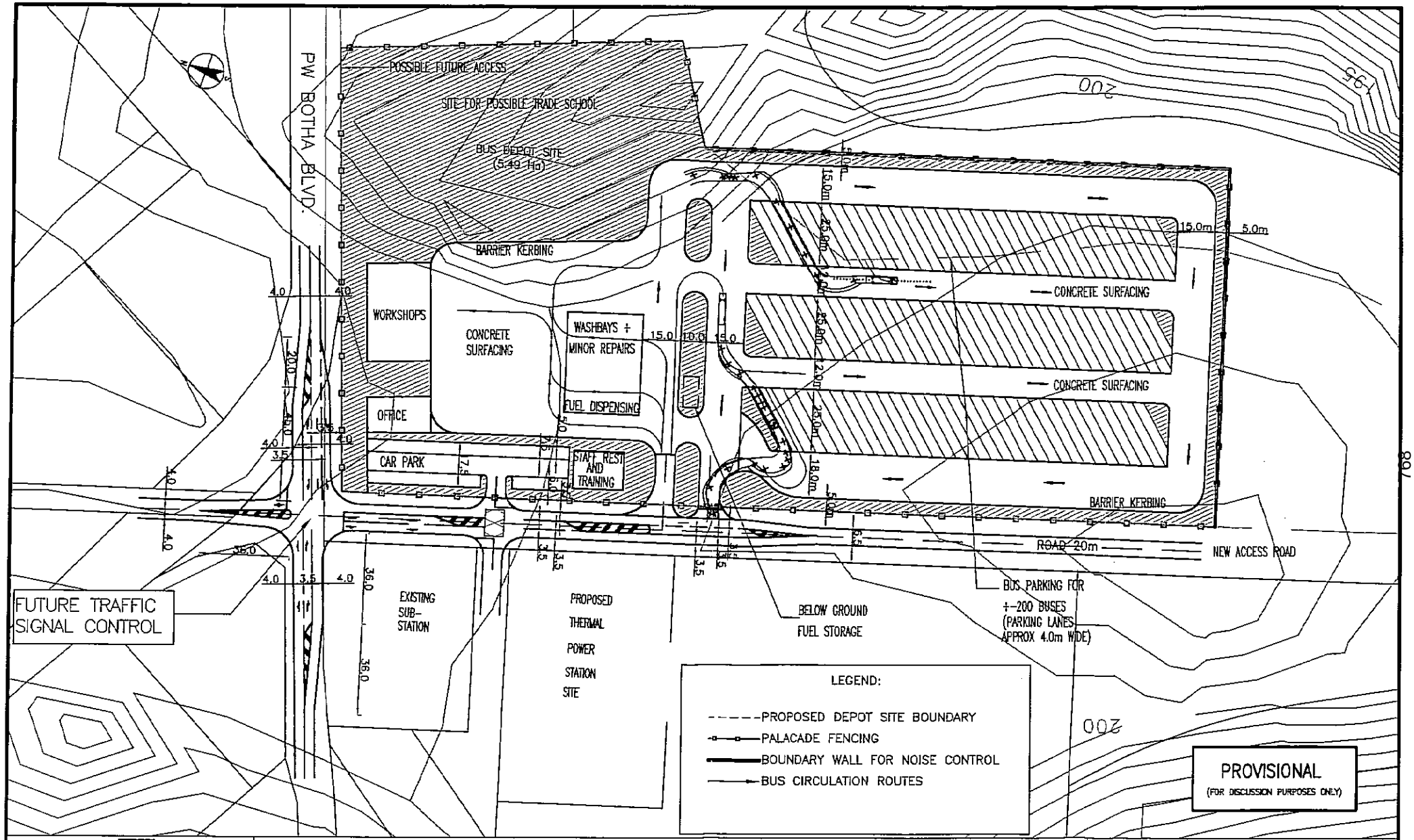
Yours faithfully

AYUB MOHAMED
DIRECTOR: LAND MANAGEMENT (REGION 1)

DATE: 10/11/2010

Copied to: George Municipality Fax: 044 873 3862
Sharples Environmental Services Fax: 044 874 5953
DEA&DP (George office) Fax: 044 874 2423

EG12/2/3/1-D2/11-1098/08



NINHAM SHAND
CONSULTING SERVICES CAPE TOWN

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GEORGE MOBILITY STRATEGY

PROPOSED PERMANENT BUS DEPOT ON PORTION OF ERF 464 : GEORGE

SCALE
1:2 000
A4 DRAWING

DRAWING No
FIGURE 2.1

URBAN ENGINEERING
CONSULTING CIVIL AND STRUCTURAL ENGINEERS

TRAFFIC IMPACT INVESTIGATION

PROPOSED METRO GROUNDS INDUSTRIAL DEVELOPMENT

Report Number 22-158_TIA



Date: February 2025 Revision (1)

QUALITY ASSURANCE DATA

Report Title:	PROPOSED METRO GROUNDS INDUSTRIAL DEVELOPMENT
Client:	Zutari
Report Number:	22-158_TIA
Revision Number	Revision (1)

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Written by:



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Frans R van Aardt (B.Ing, M.Ing, Pr.Eng)
On behalf of Urban Engineering (Pty) Ltd

EXECUTIVE SUMMARY

This report presents a Traffic Impact Assessment (TIA) conducted by Urban Engineering (Pty) Ltd, commissioned by Zutari, for the proposed Metro Grounds industrial development on the remainder of Erf 464 in George. The assessment aims to evaluate and advise on the proposed internal road network, focusing on planning aspects such as road layout, road reserve widths, intersection spacing, and forms of control, to ensure functionality, connectivity, and access.

1. **Site Description:**
   - Located at the intersection of PW Botha Boulevard and Ossie Urban Street, the site is largely undeveloped.
2. **Surrounding Road Network:**
   - PW Botha Boulevard is classified as a Class 3 District Distributor
   - Ossie Urban Street is classified as a Class 5 Access Road.
3. **Historical and Existing Conditions:**
   - Previous traffic studies conducted in 2011, 2015, and 2021 provide context for the current assessment, highlighting the necessity for infrastructure improvements due to increased traffic volumes.
4. **Key Issues Identified:**
   - Poor Shoulder Sight Distance (SSD) at the PW Botha Blvd/Ossie Urban Str intersection.

RECOMMENDATIONS

i. **Intersection Upgrades:**

- **PW Botha Boulevard/Rand Street:**
  - Maintain as a signalized intersection instead of converting to a roundabout to improve safety and create a synchronized corridor with other signalized intersections.

ii. Intersection of PW Botha Boulevard/Ossie Urban Street:

- Upgrade to a signalized intersection to mitigate the lack of sufficient shoulder sight distance and enhance synchronization with surrounding traffic signals.

iii. Internal Road Network:

- Implement recommended intersection controls and driveway positions as per the provided layout plans to ensure maximum mobility.

iv. Pedestrian and NMT Provisions:

- Establish UA-compliant sidewalks next to all new internal roads and along PW Botha Boulevard. Cross sections to include a landscaped furniture zone to enhance pedestrian safety and enhance the aesthetic appeal of the kerbside environment.
- Include provisions for street lighting alongside new internal Metro Grounds roads to ensure safety and visibility at night.
- Make provision for clearly defined (preferably Class 1 but minimum Class 3) bicycle routes/lanes in all road cross sections. Road layouts should also make provision for safe bicycle crossing areas at intersections.

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LIST OF ABBREVIATIONS

GIZSBL	George Integrated Zoning Scheme By-Law
WCG	Western Cape Government
PGWC	Provincial Government of the Western Cape
AMG	Access Management Guidelines (2020)
RDE	Roadside Development Environment
UA	Universal Accessibility
NMT	Non-Motorised Transport
GLA	Gross Leasable Area
SATGRM	South African Trip Generation Rates Manual
CITP	Comprehensive Integrated Transport Plan
LOS	Level of Service
DoT	Department of Transport
MR	Main Road
DR	Divisional Road
RNIS	Road Network Information System
LILO	Left-In Left-Out
PWBB	PW Botha Boulevard
NMB	Nelson Mandela Boulevard

1 INTRODUCTION

Urban Engineering (Pty) Ltd was appointed by Zutari for the Traffic Impact Assessment pertaining to the proposed industrial development (referred to as Metro Grounds) on the remainder of Erf 464, George.

2 TERMS OF REFERENCE

Based on George Municipality's request for quotation (Reference: ToR Metro Grounds Industrial: Layout Review, Outline Services Report and TIA, Revision 9 dated 27 July 2022), the terms of reference are stipulated as follows:

***"Traffic Impact Assessment*:** *A traffic impact assessment for the purposes of the proposed Go-George bus depot was concluded (George Integrated Public Transport Network: Proposed Permanent Bus Depot on Part of Portion 464 George: Traffic Impact Assessment – Draft 2: 14 September 2021), which included references to the impact of the proposed industrial area. Working from the data contained in such report, if possible, a TIA to be done in respect of the proposed industrial development. The roads master planning context and/or the existing and proposed projects in the vicinity (wider context) of the site to be considered in the TIA in order to facilitate functionality, connectivity and access. Non-Motorized Transport and pedestrian movement to be enabled."*

3 OBJECTIVE OF THIS REPORT

This report aims to evaluate and advise on the proposed internal road network, focusing on planning aspects such as layout, road reserve widths, intersection spacing, layouts and forms of control. This report should be seen as a high-level road network planning tool. Road network planning is important when planning new developments because it can have significant impacts on the economy, society and health of the people living in and around the development area.

4 SITE DESCRIPTION AND LOCALITY

The site under consideration belongs to the municipality and comprises a part of the Remainder of Erf 464, George. The site is situated at the intersection of PW Botha Boulevard and Ossie Urban Street, roughly halfway between Nelson Mandela Boulevard and York Street. The site has approximate Latitude/Longitude coordinates of 33°59'21.34"S and 22°27'28.52"E. The site is mainly undeveloped except for an electrical substation situated at the entrance to the site. Photos taken during various site inspections are attached as **ANNEXURE A.**



Figure 4-1 - Site locality

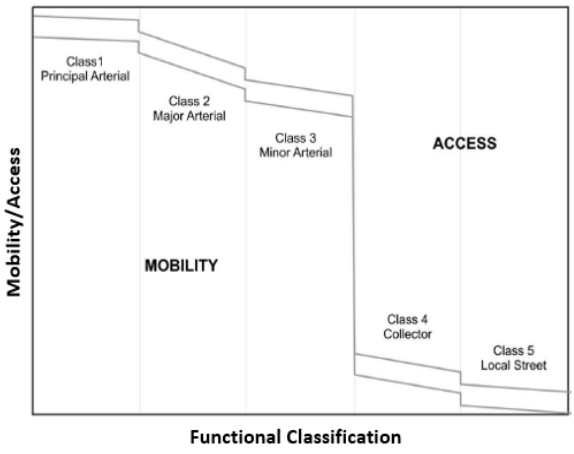
5 THE SURROUNDING ROAD NETWORK

Depending on which guidelines are being used, the nomenclature used in road classification varies slightly. For ease of reference, the differences between the terms used in the 2006 Department of Transport (DoT) guidelines and those specified in 2018 in the Road Classification and Access Management Guideline (COTO), are listed below:

Road Class	Function	DoT 2006 Guidelines	COTO 2018 (TRH 26 Manual)
Class 1	Mobility	Primary Distributor	Principal Arterial
Class 2		Regional Distributor	Major Arterial
Class 3		District Distributor	Minor Arterial
Class 4	Access / Activity	District Collector	Collector Street
Class 5		Access Road	Local Street
Class 6		Non-motorised access way	Walkway

Table 5-1 - Road Classification Nomenclature

Roadways are classified by function on the basis of the priority given to land access versus through-traffic movement. Class 1 and 2 arterial roads provide a predominantly “mobility” function and Classes 4 and 5 roads perform a collector and local “access” function.



Class	Function	Description
Class 1	Mobility	Principal Arterial
Class 2		Major Arterial
Class 3	Mobility/Access	Minor Arterial
Class 4		Collector
Class 5	Access	Local

Figure 5-1 - Relationship Between Access and Mobility

The functions of ‘mobility’ and ‘access’ overlap on minor arterials (Class 3 roads). This relationship between access and mobility has been indicated schematically in Figure 5-1.

Access Management is particularly important along Principal, Major and Minor Arterials and other primary roads that are expected to provide safe and efficient movement of traffic as well as limited access to property. However, Access Management is also necessary on lower-order roadways, such as Collector - and Local Streets, to address safety considerations, such as sight distance and corner clearance.

As indicated in Figure 4-1, the site is situated at the intersection of Ossie Urban Street and PW Botha Boulevard. The current intersection layout makes provision for free-flow movement along PW Botha Boulevard, with stop control along the minor roads only.

The current layout of the intersection of PW Botha Boulevard and Ossie Urban Street can be seen in die aerial photos included as Figure 5-2 below.



Figure 5-2 - Intersection Layout

5.1 PW BOTHA BOULEVARD

5.1.1 ROAD CHARACTERISTICS

PW Botha Boulevard is approximately 3100m long and runs predominantly in an East/West direction, providing a transportation link between Nelson Mandela Boulevard (NMB) in the east and York Street (MR0002) in the west. The surfacing is mainly bitumen based (asphalt) but short sections of interlocking paving or concrete are present at high traffic intersections. The cross sections in the vicinity of the site consist of a 9.8m wide surfaced roadway with concrete kerbs and a grassed verge on both sides. Stormwater is diverted by a combination of open stormwater channels and formal pipe infrastructure. The section under consideration has a posted speed limit of 60 km/h. This speed limit increases to 80 km/h, downstream of the PW Botha/Ossie Urban Intersection (towards Nelson Mandela Boulevard).



Figure 5-3 – PW Botha Boulevard Photos

The site is situated next to the GO GEORGE Industria-CBD Bus route (refer to Figure 5-4). Formal sidewalks are provided in isolated positions next to the GO GEORGE bus stops, but in general insufficient provision for Non-Motorised Transport (NMT) has been provided and pedestrians and cyclist are forced to make use of the roadway which they share with passenger vehicles, busses and heavy vehicles.



Figure 5-4 - Intersection Layout

Based on the George IMQS website, the road condition varies between No Data, Very Poor and Poor (refer to Figure 5-5 below).



Figure 5-5 - George IMQS Road Surface Condition

Visual inspections of the road carried out in June 2024 revealed various areas of pavement damage close to the PW Botha Boulevard, Ossie Urban Intersection, as indicated in Figure 5-6 below.



Figure 5-6 - Visual Pavement Damage

Road maintenance and rehabilitation commenced during in the second quarter of 2024 as is evident in the below photo (Figure 5-7) dated 03 June 2024.



Figure 5-7 - Road Maintenance along PW Botha Blvd June 2024.

A follow up inspection in February 2025 revealed that the rehabilitation was still ongoing and the Contractor was busy on the section between Steinhof Park and Ossie Urban Intersection.



Figure 5-8 - Road Maintenance along PW Botha Blvd Feb 2025.

5.1.2 ROAD CLASSIFICATION

Based on the George Roads Master Plan (Kantey and Templer, June 2006), PW Botha Boulevard is classified as a Class 3 District Distributor (refer to Figure 5-8).

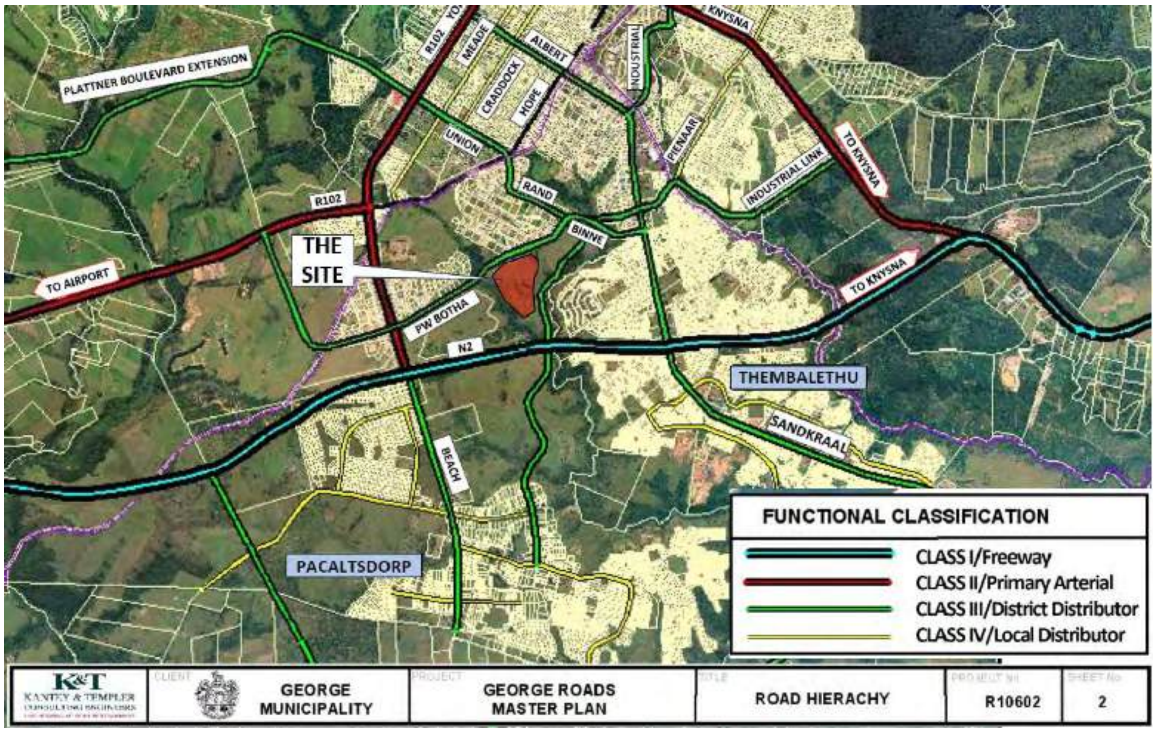


Figure 5-9 - George Roads Master Plan

The TRH 26 (SA Road Classification and Access Manual) defines Class 3 Minor Arterials as follows:

Class U3 Urban Minor Arterials

Urban minor arterials would typically be required to serve traffic in most urban areas, including small towns.

In cities and larger towns, the Class U3 arterials would be used to provide connections between districts of the city or town and form the last leg of the journey on the mobility road network, bringing traffic to within one kilometre of its final destination. In small towns, they would be used to provide general overall mobility to the whole town. The arterials can also be used to serve economic activity centres that are not served by Class 1 or 2 arterials.

The Class U3 arterials should also be used to serve as connectors to rural Class 3 routes. They should preferably start and stop at arterials of equal or one higher Class (2 to 3) but can connect to Class 1 principal arterials.

Minor arterials function as through routes on a district scale. While still carrying predominantly through traffic, they serve shorter distance trips with a length of around 2 km but can be as short as a single block if connecting higher order routes.

The minor arterials would typically carry volumes of traffic of between 10 000 and 40 000 vehicles per day.

5.2 OSSIE URBAN STREET

5.2.1 ROAD CHARACTERISTICS

Ossie Uban Street is approximately 685m long. The road starts at the PW Botha/Ossie Urban Intersection and terminates with a cul-de-sac at the end. The street is surfaced with bitumen-based sealer (asphalt) and the typical cross sections consist of a 9.6m wide surfaced roadway with concrete kerbs both sides. Multiple high- and low volumes driveways give direct access to the various industrial properties situated next to Ossie Urban Street. There are GO GEORGE bus stops at the intersection of Ossie Urban and PW Botha Boulevard, but Ossie Urban Street does not form part of the GO GEORGE bus route. Little to no provision is made for Non-motorized Transport (NMT) and pedestrians are forced to walk on the verge or within the roadway.



Figure 5-10 - Discovery Road Photos

The Roadside Development Environment is influenced by various industrial developments with direct access to Ossie Urban Street, as indicated in Figure 5-10.



Figure 5-11 - Ossie Urban Roadside Development Environment

5.2.2 ROAD CLASSIFICATION

Ossie Urban Street was not specifically addressed in the George Roads Master Plan (prepared by Kantey and Templer), but the road has been included in the George IMQS website. According to the George IMQS, Ossie Urban Street is classified as a Class 5 "Access Road" (refer to Figure 5-11).



Figure 5-12 - George IMQS Road Classification

The TRH 26 (SA Road Classification and Access Manual) defines Class 5 Local (Access) Streets as follows:

Class U5 Local Access Street

Class 5 streets provide access to individual properties. As they must provide exclusively an access or activity function, both traffic volumes and trip lengths must be significantly limited. They must not be continuous between roads of an order higher than Class 4.

Local streets should not carry any through traffic but only traffic with an origin or destination along the street, i.e. all the traffic using the local street will have a destination in the street itself. In terms of the TRH 26 Manual, local streets can be classified as either 5a or 5b as follows:

i) Class 5a Commercial local street

These local streets are found in areas with commercial, business, industrial, shopping and mixed-use residential developments. The streets often carry a high percentage of heavy vehicle traffic which uses the street to access loading areas or bus stops.

Commercial local streets should not carry volumes of more than about 5 000 vehicles per day. The length of the street should be limited to a maximum of about 1 km.

ii) Class 5b Residential local street

These local streets are found in residential areas and almost exclusively serve residential traffic and possibly some public transport as well as refuse and small delivery trucks.

Residential local streets should not carry more than about 1 000 vehicles per day or 100 vehicles during peak hours. If Class 5b residential local street volumes exceed 5 000 per day, this is a criterion to classify the road as a Class 4b residential collector.

Local residential streets should be short blocks of less than 0.5 km, with one kilometre being the maximum for safety reasons.

6 GUIDELINE DOCUMENTS

This investigation was undertaken in accordance with the following guidelines:

- National Land Transport Act, 2009 (Government Gazette No. 32110)
- South African Traffic Impact & Site Traffic Assessment Manual (TMH 16 Volume 1, COTO)
- South African Trip Data Manual (TMH 17, Draft 2.0, May 2018)
- Access Management Guidelines (WCG Dept. Transport and Public Works, 2020)
- George Roads Master Plan (Kantey and Templer, 2007)
- Urban Design Famework, (10 March 2023), Zutari
- Department of Transport, UTG 1 (1996) Geometric Design of Urban Arterial Roads
- Department of Transport UTG 5 (1996) Geometric Design of Urban Collector Roads

7 LITERATURE REVIEW

This report should be read in conjunction with the following reports and historic traffic studies:

1. Transport Impact Statement (TIS) pertaining to: *Proposed Permanent Bus Depot (Borcherds) on a Portion of Erf 464 George, (EJ Robertson Consultants, unreferenced, August 2011)*
2. Traffic Impact Assessment (TIA) pertaining to: *Proposed Development on Erf 464 (Metro Grounds) George, (SMEC Report Nr. C1461-Rev02, February 2015)*
3. Traffic Impact Assessment (TIA) pertaining to: *Proposed Permanent Bus Depot on Portion of Erf 464, George.* (Zutari Report Nr 1001403-0000-REP-KR-00001-1) Revision (Draft 2), dated 2021/09/14.

7.1 EJ ROBERTSON'S TRANSPORT IMPACT STATEMENT (UNREFERENCED, AUGUST 2011)

The Traffic Impact Statement (TIS) for the proposed permanent bus depot on Erf 464 in George was conducted to assess the traffic impacts as part of the George Integrated Public Transport Network (GIPTN). This initiative aimed to transform informal minibus taxi and bus operations into a regulated system. The selected 5-hectare site, located adjacent to PW Botha Boulevard, was chosen for its suitability in terms of land availability, operational efficiency, and minimal planning time. The report was based on the 2002 PGWC Road Access Guidelines.

The depot was designed to accommodate around 200 buses, featuring an office/administration block, staff facilities, a workshop, fuelling and wash bays, and security control. Access to the site was planned via a future road between PW Botha Boulevard and the East Rand extension, with provisions for handling large vehicle movements.

The TIS analysed traffic impacts, noting that bus movements were scheduled outside peak hours (04:00-06:00 and 16:00-18:00), minimizing conflicts with regular traffic. The expected increase in traffic was manageable within existing road capacities.

To mitigate traffic impact, recommendations included road modifications such as additional turn lanes, embayed bus stops, sidewalks, and provisions for future traffic signals. The TIS recommended acceptance of the site zoning and subdivision, with a review suggested if the depot was not operational within five years, incorporating data from interim operations at the York Street depot.

7.2 SMEC'S TIA PERTAINING TO THE DEVELOPMENT OF ERF 464 (REPORT C1461-REV 2)

The Traffic Impact Assessment was prepared by SMEC South Africa for Royal Haskoning DHV and evaluated the impact of the Erf 464 residential development, on the existing road network. A short summary of the TIA is included below:

7.2.1 CONTEXT AND OPERATIONAL ANALYSIS

The development plan for Erf 464 included 674 erven, comprising 661 low-income residential erven, 3 transport zones, 6 public open spaces, 1 business zone, 2 crèches, and 1 authority erven. The layout was provided by DELplan Urban and Regional Planners.

Traffic counts were conducted on 20 September 2013 at the P.W. Botha Road / Rand Street / Binne Street T-junction for a 12-hour weekday period. These counts were used to determine the 2013 peak hour traffic volumes, which served as the baseline for analysis.

The analysis was performed using SIDRA INTERSECTION 5.1 software, and the analysis covered both the current (2013) and future (2018) scenarios:

- **2013 Scenario**: With the development, most junction movements will operate at acceptable LOS, except for the right turn from Rand Street in the AM peak hour, which will operate at LOS F.
- **2018 Scenario**: The 4-legged junction will generally operate at acceptable levels, but the right turn from Rand Street (North) will face significant delays (LOS F) and oversaturation.

7.2.2 GEOMETRIC ASPECTS

Access Points and Road Network: Rand Street to be extended to form a 4-legged junction with P.W. Botha Road and Binne Street, providing three access points to the new development.

Road Classification: The roads were classified as Class 4 local collectors.

Shoulder Sight Distance (SSD): SSD at the Rand Street extension is inadequate for both passenger and single unit vehicles, necessitating signalization to mitigate safety concerns.

Intersection Spacing: The proposed spacing of intersections and access points meets the guidelines.

Right Turning Lanes: Future traffic projections warrant a right turning lane at the P.W. Botha Road / Binne Street / Rand Street junction.

Left Turning Lanes: Not warranted based on future traffic projections.

7.2.3 SECONDARY ISSUES:

Pedestrians and Street Lighting: Recommendations include improvements for pedestrian safety and adequate street lighting.

Public Transportation Routes: Adjustments to accommodate new public transport routes and embayments were suggested.

7.2.4 SUMMARY AND RECOMMENDATIONS

The study concludes that the proposed development will significantly impact the existing road network, necessitating the implementation of mitigation measures, particularly signalization at critical junctions and the introduction of right-turn lanes. Ensuring adequate sight distances and intersection spacing will enhance safety and operational efficiency.

7.3 ZUTARI'S TRAFFIC IMPACT ASSESSMENT (REF NR1001403-0000-REP-KR-00001-1)

The Traffic Impact Assessment (TIA) focused on the impact of the proposed permanent depot of the GO-GEORGE bus service on the road network (specifically in the Borcherds Industrial area). This new depot was deemed necessary due to the inadequacies of the current temporary depot on Erf 3472, York Street, which could not accommodate the anticipated growth in the bus fleet.

7.3.1 CONTEXT AND SITE DETAILS

The new depot was planned to be situated on a 4.6-hectare site on Erf 464, adjacent to PW Botha Boulevard, within the Borcherds Industrial area. This location was strategically chosen as it aligned with the George Spatial Development Framework. The temporary depot managed 122 buses, with an expected increase to 150 buses by 2025. This growth necessitated a larger facility to handle the demands of the bus service.

The TIA included detailed traffic counts (July 2021) and projections and access to the new depot was planned to be from PW Botha Boulevard. The report highlighted the importance of appropriate intersection spacing and throat lengths to ensure smooth ingress and egress from the depot, minimizing congestion and ensuring safety.

Specific recommendations were made for turning lanes at key intersections. The report suggested the installation of left and right turn lanes based on traffic volume projections during peak hours. This included detailed calculations for stacking distances and the capacity of the lanes to manage anticipated traffic without causing delays or safety issues.

7.3.2 MITIGATION MEASURES

Traffic Signal Installations: The TIA recommended the installation of traffic signals at the entrance/ exit into the Depot. Signals were necessary to manage the increased traffic flow and ensure safe turning movements, especially for buses entering and exiting the depot.

Entrance and Waiting Areas: To prevent backup onto the public road network, the depot required two (60m long) entrance lanes and ample stacking areas inside the depot.

Parking: The report recommends 93 passenger car parking bays and 194 bays for busses.

7.3.3 SECONDARY CONSIDERATIONS

Pedestrian and Cyclist Safety: The report also addressed the needs of pedestrians and cyclists, recommending appropriate crossings and safety measures to protect these vulnerable road users amidst the increased bus traffic.

Environmental and Community Impact: Consideration was given to the broader environmental and community impacts. Measures were proposed to mitigate noise and air pollution, ensuring the depot's operations did not affect the surrounding areas.

7.3.1 SUMMARY AND RECOMMENDATIONS

Implementation of Traffic Management Measures: The primary recommendation was the careful implementation of the proposed traffic management measures, including signal installations, turning lanes, and internal depot arrangements.

Monitoring and Evaluation: Ongoing monitoring and evaluation of traffic conditions post-implementation were recommended to ensure the measures were effective and to make adjustments as necessary.

The report proposed that PWBB be dualled should all planned development go ahead.

For ease of reference, the findings and recommendations of the Zutari report has been indicated schematically in Figure 7-1 below:

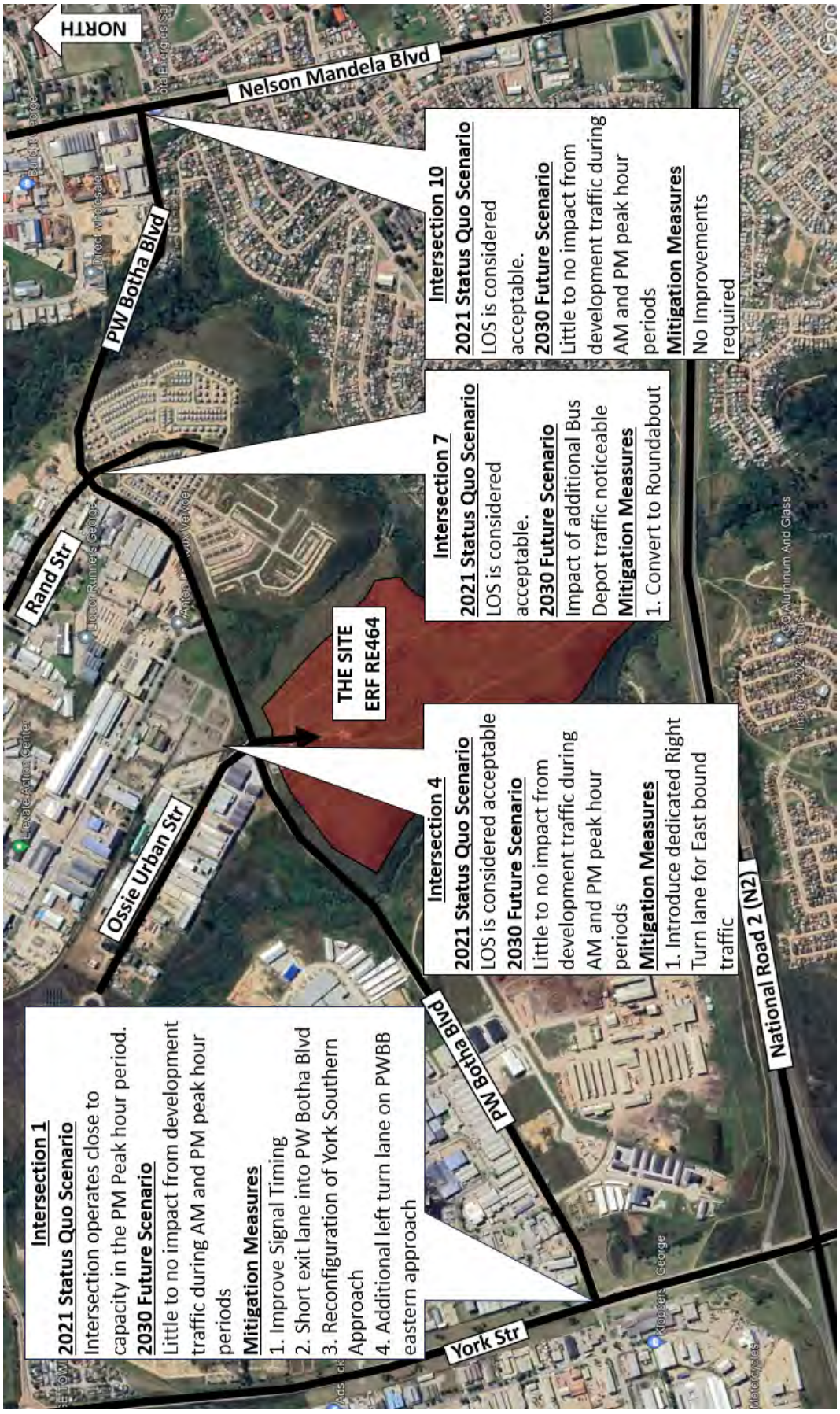


Figure 7-1 - Summary of Findings and Recommendations of Zutari Report

8 EXISTING (EXTERNAL) ROAD NETWORK

8.1 INTERSECTION SPACING

It is important to note that both the SMEC and Zutari reports, were based on the assumption that the intersection of PW Botha Boulevard and Rand Street will be converted to a roundabout. This is, however, not the case and the intersection has instead been converted to a traffic signal-controlled junction. The position of the site in relation to the other junctions (intersection spacing) along PW Botha Boulevard has been indicated schematically in Figure 8-1.

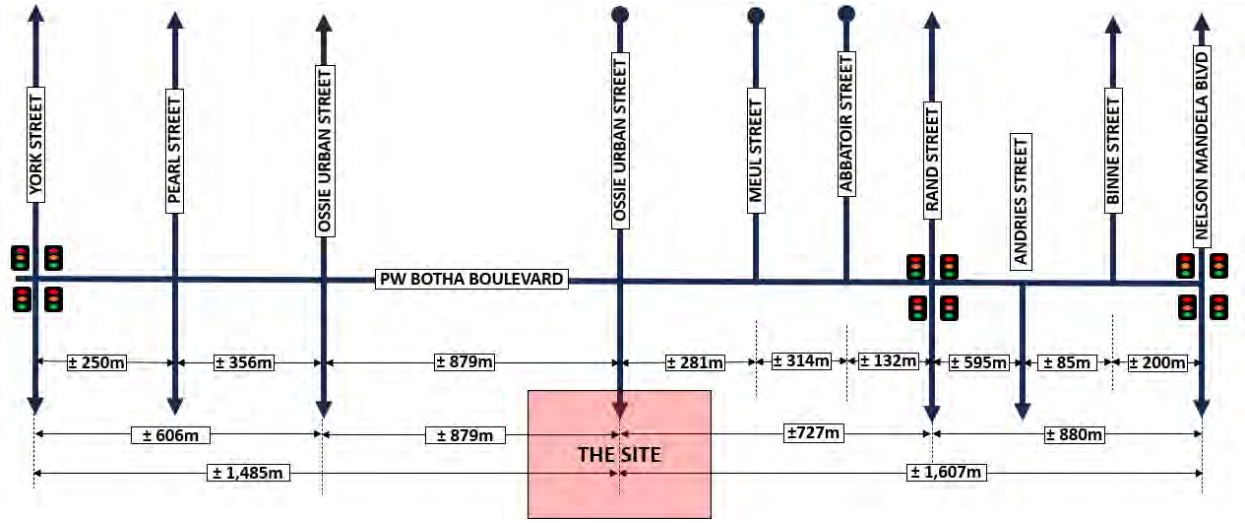


Figure 8-1 - Position of Site along PW Botha Boulevard

Since PW Botha Boulevard is a Class 3 Road (without medians), in the Suburban Roadside Development Environment, the spacing between signalised intersections along PW Botha Boulevard should be a minimum of 540 m, as recommended in the Western Cape Government's Access Management Guidelines (2020) (refer to Figure 8-2 and Table 8-1 below).

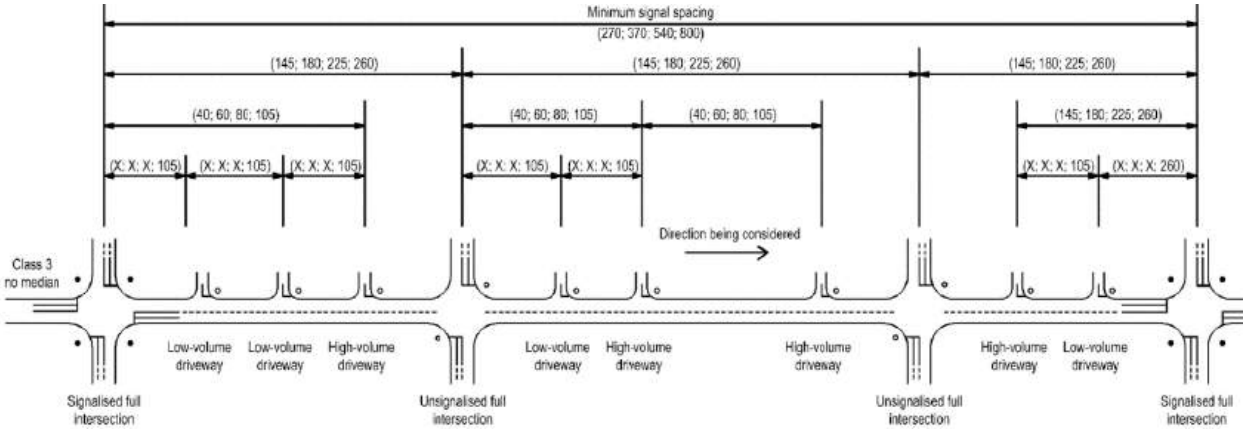


Figure 8-2 - AMG Intersection Spacing for Class 3 Roads

Roadside development environment	Road class Ideal spacing (m)		
	Class 2	Class 3	Class 4
CBD	417	305	243
Intermediate	583	417	305
Suburban	778	583	417
Semi-rural	1 222	778	583

Table 8-1 - Ideal Spacings (m) Before Adjustments

8.2 SHOULDER SITE DISTANCE

At a stop-controlled intersection, the driver of a stationary vehicle must be able to see enough of the intersecting main road to be able to cross before an approaching vehicle reaches the intersection, even if this vehicle comes into view just as the stopped vehicle starts to cross. Shoulder Sight Distance is measured from a passenger driver eye height (passenger car) of 1,05m to an object height of 1,3m. There must be no obstruction to the view in the sight triangle, defined as the area enclosed by the sight line and the centre line of the intersecting main road. The eye position is located 5m back from the road edge as indicated in Figure 8-3

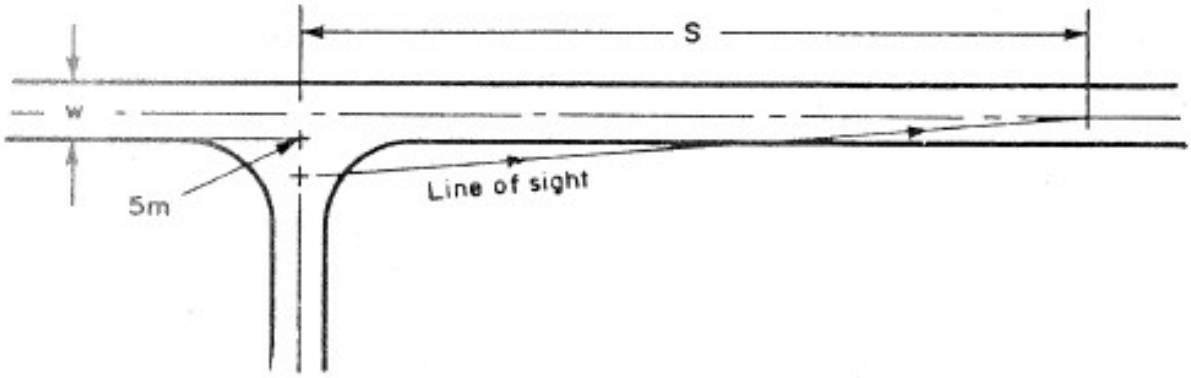


Figure 8-3 - Shoulder Sight Distance Parameters

Shoulder Sight distance is also a function of the Design Speed, Type of vehicle and Road width. In this instance the following assumptions are made:

- Design Speed: 60km/h
- Road Width = min 13,3m (9,8m + additional 3,5m right turn)
- Design Vehicle: Single Unit with Trailer

Based on the above assumptions it follows that a Shoulder Sight Distance of 250m is required along PW Botha Boulevard.

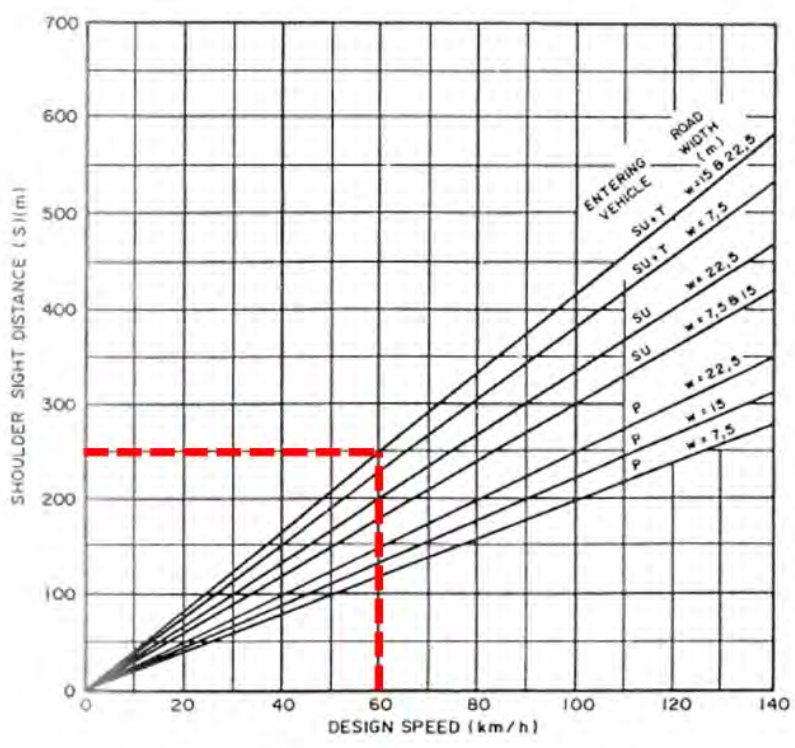


Figure 8-4 - Shoulder Sight Distance Requirement

Shoulder Sight Distance was not addressed in the Zutari Report, but site investigations reveal that SSD in both eastern and western directions, are severely obstructed by existing earth embankments (refer to Figure 8-5 below)



Figure 8-5 - SSD Measured on Site

As an additional check, the line of sight at the road edge, was also measured on site, as indicated in Figure 8-6. It is important to note that the Line of sight was measured directly next to the PW Botha Boulevard road edge, and not at a 5m off-set as required for Shoulder Sight Distance.



Figure 8-6 - Line of sight Measured at Road Edge

Line of Sight:

a) Towards the West

The combination of both a horizontal and vertical curve along the western approach of PW Botha Boulevard, leads to insufficient line of sight (111m) when looking towards the west.

b) Towards the East

Line of sight in excess of 350m is available when looking towards the east from the new proposed intersection.

The lack of sufficient SSD and Line of Sight is highly disconcerting, especially when combined with slow moving vehicles such as busses and heavy vehicles.

9 NEW (INTERNAL) ROAD NETWORK

9.1 CONCEPTUAL DEVELOPMENT FRAMEWORK

The proposed conceptual development framework was prepared by Zutari and makes provision for the following land uses:

Land Use	Zoning	Erf Number	Area (ha)	% of Area
Education Facility	Community Zone I	01	5.21ha	28.27%
Industry	Industrial Zone I	02-20	8.33ha	45.2%
Public Streets	Transport Zone II	21	3.70ha	20.07%
Total Area			18.43ha	100%

Table 9-1 – Metro Grounds Land Use Table

The concept layout plan clearly indicates the proposed internal road network. This plan has been attached as **ANNEXURE B**, but for ease of reference an extract of the plan has been attached as Figure 9-1 below.



Figure 9-1 – Extract of Zutari's Conceptual Development Framework Layout

From Figure 9-1, it is important to note the following:

1. The greater site development plan makes provision for two "unlisted" erven:
    a. Figure D,E,F,G,H which is the site of the existing electrical sub-station
    b. The possible Future Bus Depot site. This site does not form part of Zutari's application and will be dealt with directly by the relevant departments at George Municipality.
2. The layout makes provision for two main intersections. The first situated at the current junction of PW Botha Boulevard and Ossie Urban Street, and the second, at the future intersection with the proposed Rand Street extension.

9.2 ROAD CLASSIFICATIONS

Based on the intended function of the internal roads, they can be classified as indicated in Figure 9-2 below.



Figure 9-2 - Proposed Internal Road Classification

Road Classifications are specified in the TRH 26 South African Road Classification and Access Management Manual (Draft 2.0, May 2018). A summary of the relevant sections have been included below:

CLASS U4 URBAN COLLECTOR STREETS

Collector streets are used to penetrate local neighbourhoods with the purpose of collecting (and distributing) traffic between local streets and the arterial system. The streets are mainly intended to serve an access function with limited mobility and traffic volumes; trip lengths and continuity must be limited.

They should ideally not carry any through traffic but only traffic with an origin or destination along or near to the street. The majority of the traffic using the collector street will have a destination in the street itself or in a local street leading off the collector. A collector street must not be quicker to use to pass through an area than a mobility road although it is recognized that in the absence of a mobility route, collectors must allow for some through traffic, albeit at low speeds.

Class 4a major collectors may also be used in preference to arterials when “mixed” through and local traffic is unavoidable, such as when arterials pass commercial centres with no alternative access. In this case, the local access traffic must be favoured at the expense of the mobility function.

In terms of the TRH 26 Manual, collectors must be classified as either 4a or 4b as follows:

i) Class 4a Commercial (major) collector street

These collectors are found in areas with commercial, business, industrial, shopping and mixed-use residential developments. The streets carry a high percentage of heavy vehicle traffic and public transport.

Typical commercial collectors are CBD streets (whether two-way or one-way), shopping centre streets, activity spines and industrial distributors. Traffic volumes on the collectors vary greatly depending on their location. In busy shopping areas, the collectors can carry up to 25 000 vehicles or even more per day. The lengths of the roads should be limited to a maximum of about 2 km or 3 km if no through traffic is present.

ii) Class 4b Residential (minor) collector street

These collectors are found in residential areas and almost exclusively serve residential traffic and public transport.

Residential collectors should not carry more than about 10 000 vehicles per day or 1 000 vehicles during peak hours (although lower volumes are preferred). These volumes are the maximum that can safely be accommodated on this class of streets. If Class 4b residential collector street volumes exceed 10 000 per day, this is an indication that re-classifying the road may be required.

The lengths of the roads should be limited to a maximum of about 2 km.

CLASS U5 URBAN LOCAL STREETS

Class 5 streets provide access to individual properties. As they must provide exclusively an access or activity function, both traffic volumes and trip lengths must be significantly limited. They must not be continuous between roads of an order higher than Class 4.

Local streets should not carry any through traffic but only traffic with an origin or destination along the street, i.e. all the traffic using the local street will have a destination in the street itself.

In terms of this Manual, local streets must be classified as either 5a or 5b as follows:

i) Class 5a Commercial local street

These local streets are found in areas with commercial, business, industrial, shopping and mixed-use residential developments. The streets often carry a high percentage of heavy vehicle traffic which uses the street to access loading areas or bus stops.

Commercial local streets should not carry volumes of more than about 5 000 vehicles per day. The length of the street should be limited to a maximum of about 1 km.

ii) Class 5b Residential local street

These local streets are found in residential areas and almost exclusively serve residential traffic and possibly some public transport as well as refuse and small delivery trucks.

Residential local streets should not carry more than about 1 000 vehicles per day or 100 vehicles during peak hours. If Class 5b residential local street volumes exceed 5 000 per day, this is a criterion to classify the road as a Class 4b residential collector.

Local residential streets should be short blocks of less than 0.5 km, with one kilometre being the maximum for safety reasons.

9.3 ROADSIDE DEVELOPMENT ENVIRONMENT

The density characteristics of the various Roadside Development Environment specified in the WCG's Access Management Guidelines (2020) have been indicated in Table 9-2.

Roadside development environment	Floor Area Ratio (m^2 of development per m^2 of land area)	Bulk (m^2) Building height du/ha (pp/ha)[10]
CBD	> 1	10 000 m^2/ha @ 50% coverage = 2 × storey @ 30% coverage = 3 × storey Residential = > gross 100 du/ha (400 pp/ha)
Intermediate	0.3–1	3 000 m^2 – 10 000 m^2/ha @ 50% coverage = 1 × storey Residential = gross 25–100 du/ha (100–400 pp/ha)
Suburban	0.1–0.3	1 000 m^2 – 3 000 m^2/ha Single/double storey Residential = gross < 10 du/ha
Boundary of urban area/defined Urban Edge		
Semi-rural	< 0.1	
Rural	< 1 bldg/10 ha	

Table 9-2 - Roadside Development Environment Characteristics

Based on Table 9-2, it is envisaged that ultimate density of the Metro Ground Industrial site will result in a Roadside Development Environment classification of "**Intermediate**".

9.4 ROAD RESERVES

Road reserve widths are specified in table 8.4 of the TRH 26 as indicated in Figure 9-3.

Class	Rural		Urban	
	Typical	Range	Typical	Range
Class 1	62	60 – 80	60	60 – 120
Class 2	48	40 – 70	40	38 – 62
Class 3	30	30 – 50	30	25 – 40*
Class 4a	25	-	25	20 – 40
Class 4b			20	16 – 30
Class 5a	20	-	22	15 – 25
Class 5b			14**	10 – 16

* Reserve up to 62 m is required to allow for Strategic Bus Rapid Transit (BRT).

** Reserve of 10.5 m is typical if street is less than 100 m long.

Figure 9-3 - Road Reserve Widths

Based on the above, the actual vs proposed road reserve widths can be summarised as follows:

Road Class	TRH 26 Recommended Road Reserve Width	Zutari Proposed Road Reserve Width	Comment
Class 4a Commercial Collector	25m	30m	Zutari's Proposed Road Reserve width is deemed sufficient
Class 5a Commercial Local Street	22m	22m	Zutari's Proposed Road Reserve width is deemed sufficient

Table 9-3 - Comparison between recommended and proposed road reserve widths

9.5 DRIVEWAYS

The term “driveway” describes the intersecting roadway giving direct access to a privately-owned property adjacent to the road where such intersecting roadway is not a public road or street. A driveway is usually the only access point to the property, although it is possible that connections could be made between adjacent properties through connecting roads provided by agreement between property owners or via a servitude registered for a road access. Larger developments may take access through more than one driveway from more than one road.

The 2020 AMG lists the three categories of “conventional driveways”, defined by the number of vehicular trips generated per hour that use or are projected to use a driveway, as follows:

Domestic equivalent driveways are driveways giving vehicular access to private homes, micro businesses and farms which attract very small traffic volumes. In residential areas with small plot sizes the vehicle using the driveway may have to back into the through road when leaving the property. Domestic equivalent driveways have a small impact on the through road, but can result in conflicts where reversing manoeuvres take place into the through road. For this reason, domestic equivalent driveways are acceptable on Class 5 roads, but should be discouraged on Class 4 roads except where special provision is made for access to properties within the road reserve. This requires that there is sufficient space clear of the through traffic lanes for a vehicle reversing out of a property to manoeuvre within the road reserve so as to enter the traffic stream safely.

Low-volume driveways may carry larger traffic volumes than domestic equivalent driveways and are expected to serve larger developments. The lower volume driveway categories (domestic equivalent driveways and low-volume driveways) have no class equivalent as they generally carry lower volumes than the traffic volume carried by any class of public road.

High-volume driveways are equivalent to Class 5 local roads and are expected to carry larger traffic volumes than low-volume driveways.

Driveway category	Class equivalent	Roadside development environment				
		CBD	Intermediate	Suburban	Semi-rural	Rural
		Vehicles per hour				v.p.day
Domestic equivalent		< 5	< 5	< 5	< 5	< 5
Low-volume		5–30	5–30	5–30	5–30	5–30
High-volume	5	30–150	30–100	30–60	30–50	30–50
Equivalent collector	4	150–750	100–625	60–500	50–250	50–500
Equivalent minor arterial	3	750–1 500	625–1 250	500–1 000	250–500	500–1 000
Equivalent major arterial	2	> 1 500	> 1 250	> 1 000	> 500	> 1 000

Figure 9-4 - Categories of Driveways and threshold volumes

The WCG Access Management Guidelines (2020) provides guidelines on where driveways should be allowed for a given combination of road class and roadside development environment. The table shows that on Class 3 roads only high-volume driveways should be permitted.

Roadside development environment	Class 2 Major	Class 3 Minor			Class 4 Collector			Class 5 Local		
	LVD+HVD	DED	LVD	HVD	DED	LVD	HVD	DED	LVD	HVD
CBD										
Intermediate										
Suburban										

Figure 9-5 - Guidelines for permitting "conventional" driveways

9.6 INTERSECTION SPACING (CLASS 4 MAIN ROAD)

The guidelines published in the WCG Road Access Guidelines 2020 are proposed for the Metro Grounds development site. The minimum spacing distances are a function of the road class and level of intersection control as indicated schematically in the diagrams below:

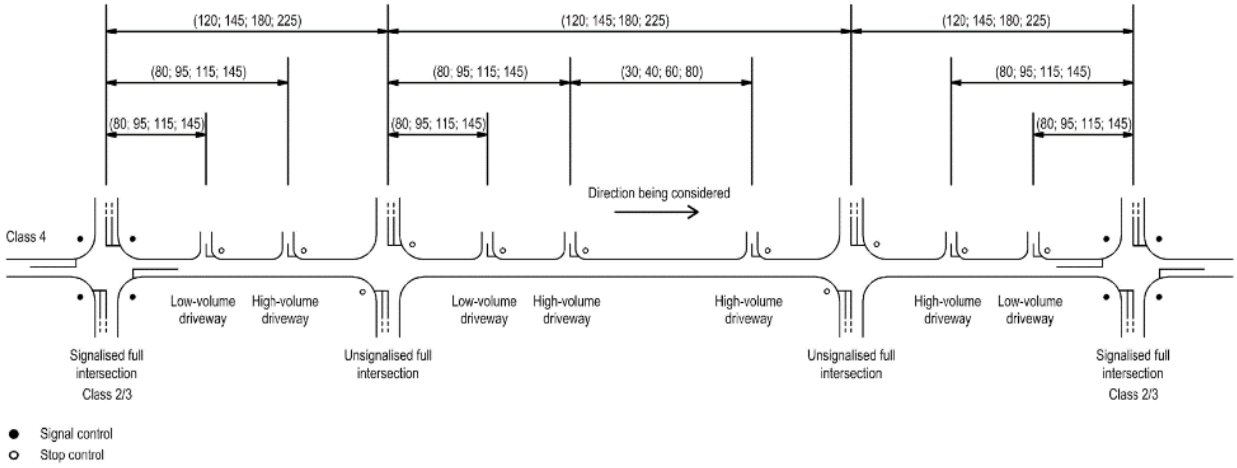


Figure 9-6 - Class 4 minimum spacing distances

Using the guidelines above, it is possible to provide the following:

1. Upgrade the existing PW Botha Boulevard/Ossie Urban Intersection into a signal controlled, full intersection.
2. Provide direct access into both the bus depot and education site via a signal controlled full intersection. This intersection must be situated 270m from the existing PW Botha Boulevard/Ossie Urban Intersection.
3. Unsignalised Full Intersections on the two intersections with the minor (Class 5) roads.
4. Provide a signal-controlled intersection at the junction of Rand Road Extension and the future Metro Grounds Main Road.

   This proposed layout has been indicated schematically in Figure 9-7, and a layout plan has been attached as **ANNEXURE C**)

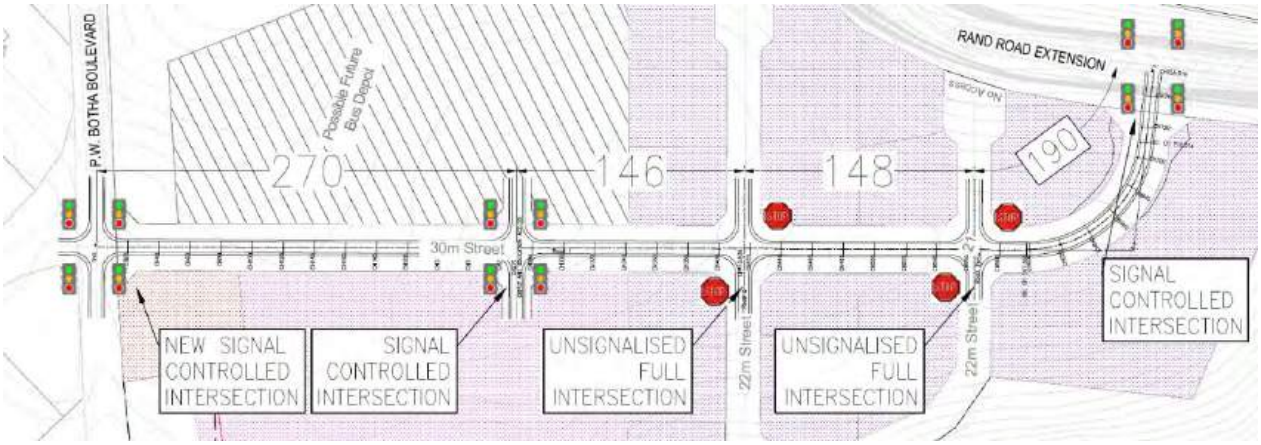


Figure 9-7 Proposed Internal Road Intersection Control

Since the proposed signal-controlled intersection at the junction of Rand Road Extension and the future Metro Grounds Main Road can only be implemented after both roads have been constructed, an interim solution is to provide a temporary turning circle at the end of Metro Grounds Main Road. A preliminary design of this circle has been prepared by Zutari and has been attached as **ANNEXURE D** to this report.

9.7 DRIVEWAY POSITIONS (CLASS 5 ROADS)

High and low volume driveway on the Class 5 roads must comply to spacing requirements indicated in Figure 9-8 below.

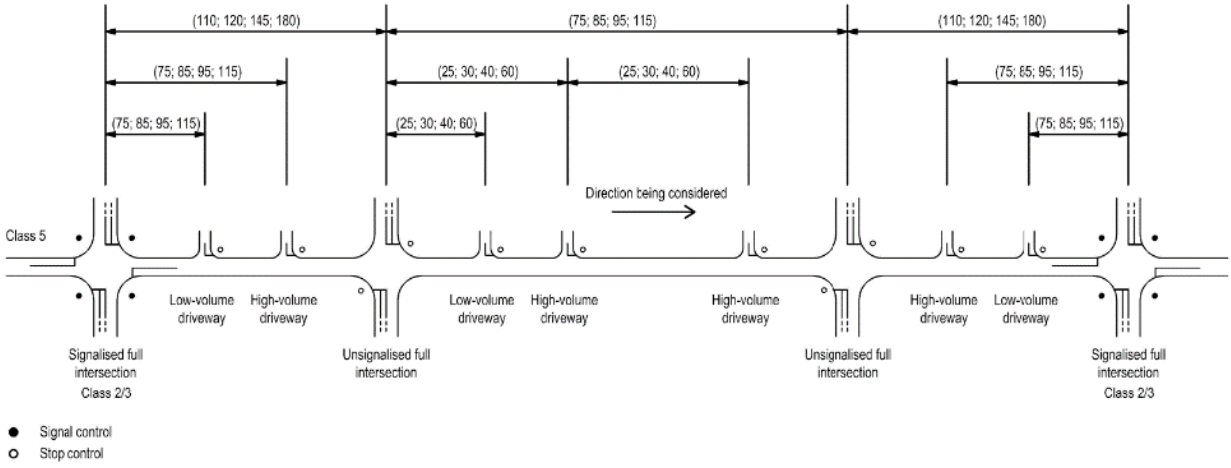


Figure 9-8 - Class 5 minimum spacing distances

Using Figure 9-8 as reference, the site access (driveway) positions must comply to the positions indicated in Figure 9-9 (refer to **ANNEXURE C** for a layout plan).

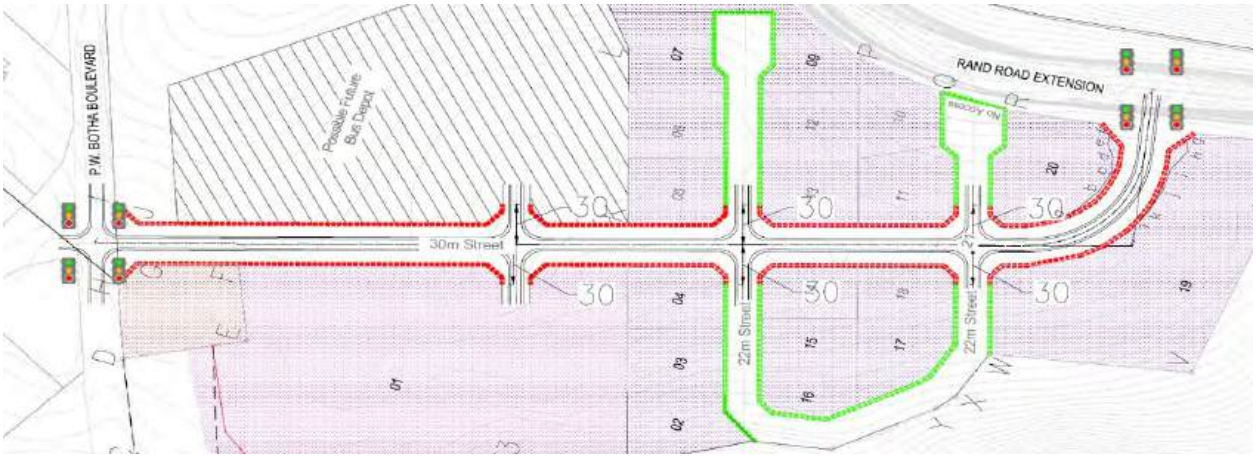


Figure 9-9 - Driveway Positions

9.8 HORIZONTAL CURVATURE

Based on both the UTG 1 (Geometric Design of Urban Arterial Roads) and UTG 5 (Geometric Design of Urban Collector Roads) guidelines, the recommended design practice is to use large radius curves without superelevation as far as possible. However, where large radius curves are not possible, superelevation can be introduced to offset the side friction forces of smaller radius curves. The following table should be used as guideline:

Minimum Radius for Horizontal Curves (m)						
Design Speed (Km/h)	Side Friction Factor (f)	Minimum radius for maximum superelevation rates (e)				
		-0.02	0	+0.02	+0.04	+0.06
60	0.15	220	190	170	150	135
80	0.14	425	365	315	280	255
100	0.13	-	610	530	465	420

Table 9-4 - Minimum Radius for Horizontal Curves

9.9 VERTICAL CURVES

The minimum rate of vertical curvature is determined by sight distance as well as by considerations of comfort of operation and aesthetics. The sight distance most frequently employed is the stopping sight distance measured from an eye height of 1.05m to an object height of 0.15m. In the case of sag curves, the sight distance is replaced by headlight illumination distance of the same magnitude, assuming headlight height of 0.6m and a divergence angle equal to 1 degree above the longitudinal axis of the headlights. Based on both the UTG 1 (Geometric Design of Urban Arterial Roads) and UTG 5 (Geometric Design of Urban Collector Roads) guidelines, values of K (based on stopping sight distance in the case of crest curves and headlight illumination distance in the case of sag curves) are given in Table 9-5

Minimum Values of K for Vertical Curves				
Design Speed (Km/h)	Stopping sight Distance (m)	Crest	K	
			Sag	
			Headlight	Comfort
60	80	16	17	8
80	115	33	31	16
100	155	60	52	25
120	210	110	60	30

Table 9-5 - Minimum Values of K for Vertical Curves

The minimum lengths of vertical curves are indicated in Table 9-6 below:

Minimum lengths of vertical curves	
Design Speed (km/h)	Length of Curve (m)
60	100
80	140
100	180
120	220

Table 9-6 - Minimum lengths of vertical curves

9.10 MAXIMUM AND MINIMUM GRADIENTS

The speed of passenger cars is relatively unaffected by gradient and the horizontal alignment will tend to govern the selection of speed. Truck speeds are however markedly affected by gradient. Both the UTG 1 (Geometric Design of Urban Arterial Roads) and UTG 5 (Geometric Design of Urban Collector Roads) provide guidelines with regards to the maximum gradients for different speeds and types of topography. Even though these documents are guidelines only and factors such as provision of auxiliary lanes and whole life economy of the road may suggest some other gradient, it is important that the geometric road designs adhere to these recommendations as far as possible

Where two roads intersect, the numerical sum of the gradients should not exceed 8% with a maximum gradient of 6% on either roadway.

In order to ensure effective stormwater flow, a minimum gradient of 1:200 (0.5%) should be adhered to as far as possible.

9.11 PARKING PROVISION

The George Integrated Zoning Scheme By-Law (2023) should be used to determine he parking requirements of the various land uses. It is important to note that the GIZSBL does not make provision for on-street parking and parking should be provided on the property for which parking is required.

SITE ACCESS AND EXIT

Based on the GIZSBL, vehicle entrances and exit ways to and from a property must conform to the following requirements:

1) The Municipality may require compliance with standard municipal or provincial access spacing guidelines.
2) No access may be closer than 10 metres from an intersection as defined by the prolongation of street boundaries, except for industrial-zoned properties, where the distance must be 15 metres.
3) The Municipality may restrict or prohibit access if a pedestrian or traffic hazard is created or is likely to be created.
4) Vehicle entrances and exit ways to and from a property must conform to the following requirements:
   a) motor vehicle carriageway crossings must be limited to one per site per proclaimed street, public street or private road abutting the site;
   b) despite paragraph (a), where the total length of any street boundary of a site is 30 metres in length or more, one additional carriageway crossing may be permitted, provided that no two carriageway crossings are closer than 12 metres to each other;
   c) the minimum and maximum widths of motor vehicle carriageway crossings must be in accordance with the table, titled “Width of motor vehicle carriageway crossings” as measured on the street boundary, where a single carriageway crossing means the crossing may only be used as either an entrance or an exit only, not both, and a combined carriageway crossing means that the crossing can be used for both an entrance and an exit;
   d) the minimum width of a panhandle access may not be less than 4 metres wide unless otherwise determined by the Municipality. Width of motor vehicle carriageway crossing must comply to the table below:

Type of carriageway crossing	Minimum width	Maximum width
Dwelling units	2.5 metres	8.0 metres
Single entrance or exit way for other land uses	2.5 metres	4.0 metres
Combined entrance and exit way for other land uses	5.0 metres	8.0 metres

PARKING LAYOUT REQUIREMENTS

The following parking layout requirements apply unless otherwise stated in the zoning scheme:

a) parking layout configurations, minimum dimensions and ramps to a parking area must be in accordance with this zoning scheme or an approved site development plan;
b) A standard 90-degree parking bay for a motor vehicle shall measure at least 2,5 metres in width and 5.0 metres in length with 7.5 metres manoeuvring space or otherwise determined by the Municipality;

c) the layout of any parking area, except for parking in Single Residential Zone I, Single Residential Zone III and General Residential Zones I to III must ensure that vehicles can readily leave the site without reversing across the sidewalk, unless otherwise approved by the Municipality;

d) a tandem bay accommodating two motor vehicles is regarded as one bay for the purposes of this zoning scheme, except for Single Residential Zone I, Single Residential Zone III and General Residential Zones I to III, where a tandem bay is regarded as two bays;

e) visitor parking bays must be clearly demarcated, readily visible and accessible to visitors, and preferably grouped together;

f) parking areas must be used for the parking of vehicles which are lawfully allowed on them, and any activity which causes an obstruction for vehicular traffic or pedestrian use of the sidewalk is prohibited;

g) parking areas must be constructed and maintained in a state suitable for the parking and movement of vehicles;

h) control of access to and reservation of parking bays and / or areas is not permitted unless written approval has been obtained from the Municipality; either through an approved site development plan or other written approval; and

i) despite paragraphs (a) to (h), the Municipality may lay down more restrictive requirements related to parking, site access or motor vehicle carriageway crossing, if it considers this to be necessary from a pedestrian or traffic safety point of view.

9.12 PEDESTRIAN WALKWAYS AND FURNITURE ZONES

Where practically possible, the walkway should not be placed directly up against the road edge, but a furniture zone should be created between the road edge and the sidewalk, increasing the safety of those making use of the walkways. This notion is further advocated in The Neighborhood Planning and Design Guide (Department of Human Settlements, July 2019) also known as “The Red Book” in which the cross section included as Figure 9-10 is proposed.

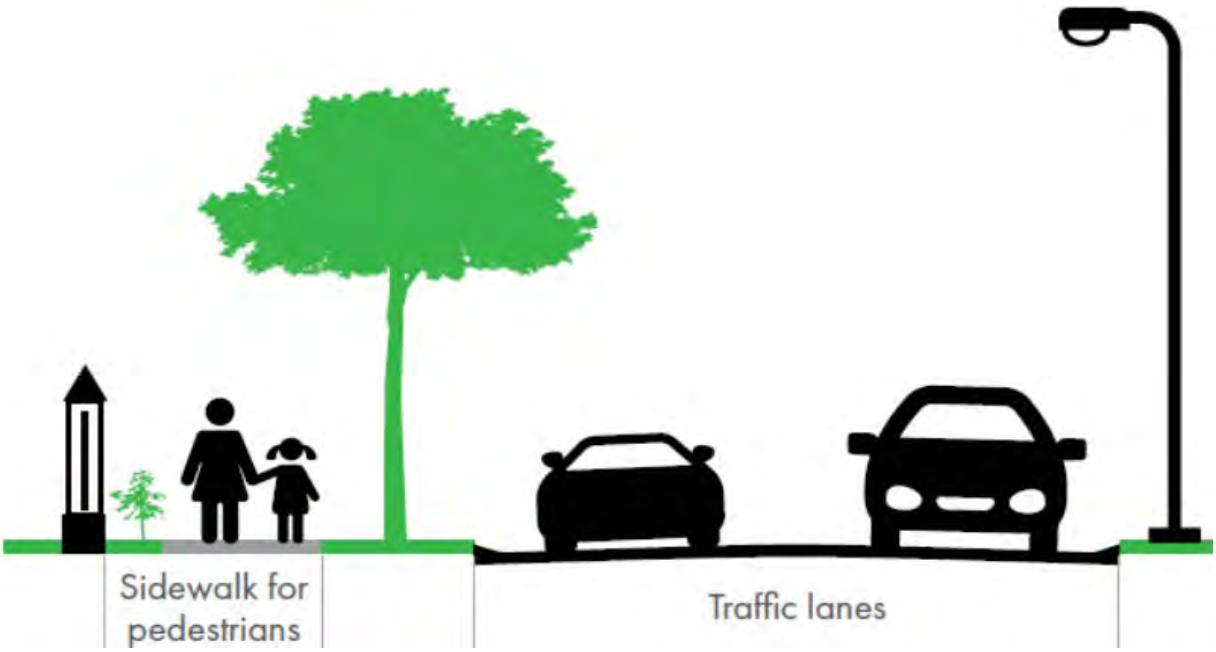


Figure 9-10 - Proposed Cross Section

10 SUMMARY

1) Urban Engineering (Pty) Ltd was appointed by Zutari for the Traffic Impact Assessment pertaining to a proposed industrial development (referred to as Metro Grounds) on remainder of Erf 464, George
2) The objective of this assessment is to evaluate and advise on the proposed internal road network planning aspects like layout, reserve widths, and intersections to ensure high-level functionality and safety.
3) Various historic TIA's pertaining to the proposed Meto Grounds development have been produced to date. The reports are listed below:
   a) Transport Impact Statement (TIS) pertaining to: Proposed Permanent Bus Depot (Borcherds) on a Portion of Erf 464 George, (EJ Robertson Consultants, unreferenced, August 2011)
   b) Traffic Impact Assessment (TIA) pertaining to: Proposed Development on Erf 464 (Metro Grounds) George, (SMEC Report Nr. C1461-Rev02, February 2015)
   c) Traffic Impact Assessment (TIA) pertaining to: Proposed Permanent Bus Depot on Portion of Erf 464, George. (Zutari Report Nr 1001403-0000-REP-KR-00001-1) Revision (Draft 2), dated 2021/09/14.
4) This assessment, which focused on the master planning context of roads, including functionality, connectivity, and access, was based on the Zutari TIA dated 2021/09/14.
5) The Zutari TIA included traffic counts and detailed intersection analysis to reach the following recommendations:

   Intersection of PW Botha Boulevard and York Street

   a) Improve Signal Timing
   b) Short exit lane into PW Botha Blvd
   c) Reconfiguration of York Southern Approach
   d) Additional left turn lane on PWBB eastern approach

   Intersection of PW Botha Boulevard and Ossie Urban Street

   e) Introduce dedicated Right Turn Lane for East bound traffic

   Intersection of PW Botha Boulevard and Rand Street

   f) Convert to roundabout

   Intersection of PW Botha Boulevard and Nelson Mandela Boulevard

   g) No Improvements required

6) An inspection of the site revealed unacceptable poor Shoulder Sight Distance at the PW Botha Boulevard/ Ossie Urban Intersection.
7) Analysis of the internal road network indicates that the proposed junctions are perfectly spaced in terms of the guidelines published in the Western Cape's Access Management Guidelines (2020).

11 RECOMMENDATIONS

Based on the findings of this report, the following recommendations are made:

1. The intersection of PW Botha Blvd/Rand Street should remain a signalised intersection.
   1.1. Despite the recommendation in the Zutari TIA (*Proposed Permanent Bus Depot on Portion of Erf 464, George; Report Nr 1001403-0000-REP-KR-00001-1; Draft 2; dated 2021/09/14*) suggesting the upgrade of the PW Botha Boulevard/Rand Street Intersection to a roundabout, it is the opinion of this author that a signalised intersection would be a safer alternative due to the limited line of sight. Additionally, a signalised junction offers the potential for establishing a synchronized corridor between the existing signalised intersections at PW Botha Blvd/York Str and PW Botha Blvd/Nelson Mandela Blvd.
   1.2. This recommendation should be proposed to the authors of the Zutari report for consideration and comment.
2. The junction of PW Botha Blvd & Ossie Urban Str should be upgraded to a signalised intersection.
   2.1. Contradictory to the Zutari TIA, it is the recommendation of this investigation to convert the PW Botha Blvd/Ossie Urban intersection into a signalised intersection. Once again, the introduction of a signalized intersection provides the opportunity to create a synchronised corridor and also mitigates the lack of sufficient sight lines and shoulder sight distances.
   2.2. This recommendation should be proposed to the authors of the Zutari report for consideration and comment.
3. All other recommendations in the Zutari TIA should be adhered to.
4. Intersection controls for internal roads must comply to Drawing 22-158-01 (**ANNEXURE C)**
   4.1. Access to the proposed bus depot and education facility should be provided by means of a signalised intersection, located exactly as indicated in Drawing 22-158-01 (**ANNEXURE C**).
   4.2. The intersection of Metro Ground Main Road (Ossie Urban Extension) and Rand Street Extension should be signal controlled as shown in Drawing 22-158-01 (**ANNEXURE C**). If Metro Ground Main Road is built before Rand Street Extension, a turning circle (**ANNEXURE D**) must be provided at its end. Once Rand Street Extension reaches the Metro Ground Main Road intersection, the turning circle should be replaced with a signalized intersection.
   4.3. Junctions between the Class 4 and Class 5 roads should be 2-way STOP controlled, with priority movement along the Class 4 road (Metro Ground Main Road)
5. As indicated in Drawing 22-158-02 (**ANNEXURE C**) no driveway access should be allowed from the Metro Ground Main road onto any neighbouring property.
6. Provision should be made for UA compliant sidewalks next to all new roads. These sidewalks must include a landscaped (grassed) furniture zone between the road edge and the sidewalk.
7. Since the proposed Metro Grounds Development includes an educational facility, provision should be made for new UA compliant pedestrian sidewalks next to PW Botha Boulevard, all the way from York Street to Nelson Mandela Boulevard. These sidewalks must include a landscaped (grassed) furniture zone between the road edge and the sidewalk.
8. Provision should be made for street lighting next to all new internal Metro Grounds roads.
9. Cross sections of all new Metro Ground internal roads must make provision for clearly defined (Class 1 preferred but Class 3 as a minimum) bicycle routes/lanes. Road layouts must also include safe bicycle crossing areas at all intersections.
10. Geometric design of Metro Grounds internal roads must comply to the various guidelines and standards with regards to horizontal and vertical alignments.

ANNEXURE A

PHOTOS TAKEN DURING SITE INSPECTIONS












METERS
cm
0 0 0 9



























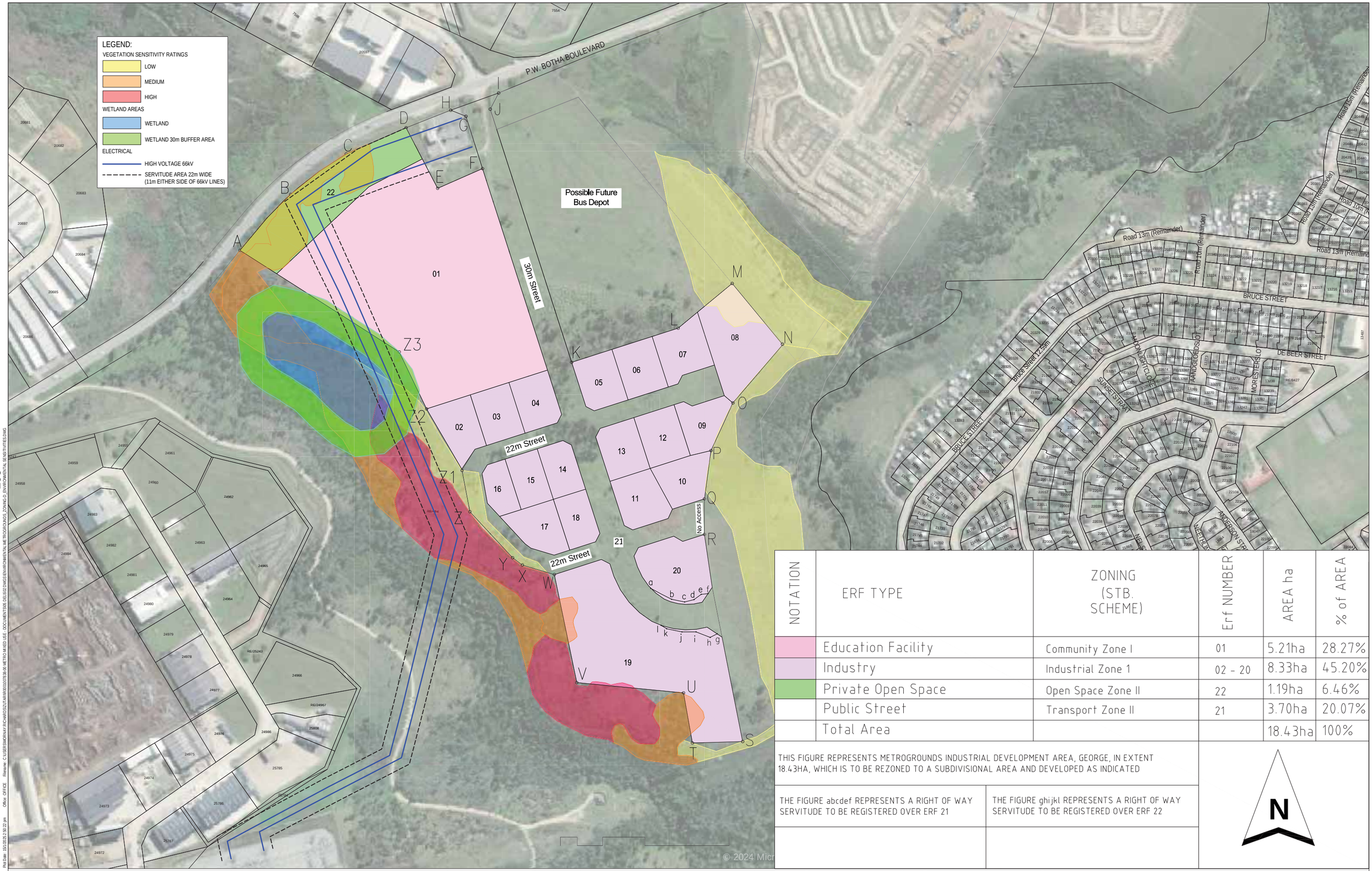






ANNEXURE B

ZUTARI CONCEPTUAL DEVELOPMENT FRAMEWORK



NOTATION	ERF TYPE	ZONING (STB. SCHEME)	Erf NUMBER	AREA ha	% of AREA
	Education Facility	Community Zone I	01	5.21ha	28.27%
	Industry	Industrial Zone 1	02 - 20	8.33ha	45.20%
	Private Open Space	Open Space Zone II	22	1.19ha	6.46%
	Public Street	Transport Zone II	21	3.70ha	20.07%
	Total Area			18.43ha	100%

THIS FIGURE REPRESENTS METROGROUNDS INDUSTRIAL DEVELOPMENT AREA, GEORGE, IN EXTENT 18.43HA, WHICH IS TO BE REZONED TO A SUBDIVISIONAL AREA AND DEVELOPED AS INDICATED

THE FIGURE abcdef REPRESENTS A RIGHT OF WAY SERVITUDE TO BE REGISTERED OVER ERF 21

THE FIGURE ghijkl REPRESENTS A RIGHT OF WAY SERVITUDE TO BE REGISTERED OVER ERF 22

N

ZUTARI
IMPACT. ENGINEERED.

CLIENT

DISCLAIMER
IF CONSTRUCTION DRAWINGS ARE ISSUED UNSIGNED, THE MASTER WITH THE ORIGINAL SIGNATURE OF APPROVAL WILL BE HELD AT THE ZUTARI OFFICE OF THE APPROVER

REV	DATE	REVISION DETAILS	APPROVED
A	11/7/2024	Zoning Drawing	R Schroder
B	2/12/2024	Layouts adjusted to exclude environmental sensitive areas	R Schroder
C	3/12/2024	Overhead Powerlines added and layout amended	R Schroder
D	14/1/2025	High and Medium Voltage lines added from Client Information	R Schroder

SCALE: 1 : 2000 | SIZE: A1
DRAWN: M Richards
DESIGNED: A Florence-Brander
REVIEWED: R SCHRODER

PRELIMINARY
NOT FOR CONSTRUCTION

APPROVED
DATE
R Schroder

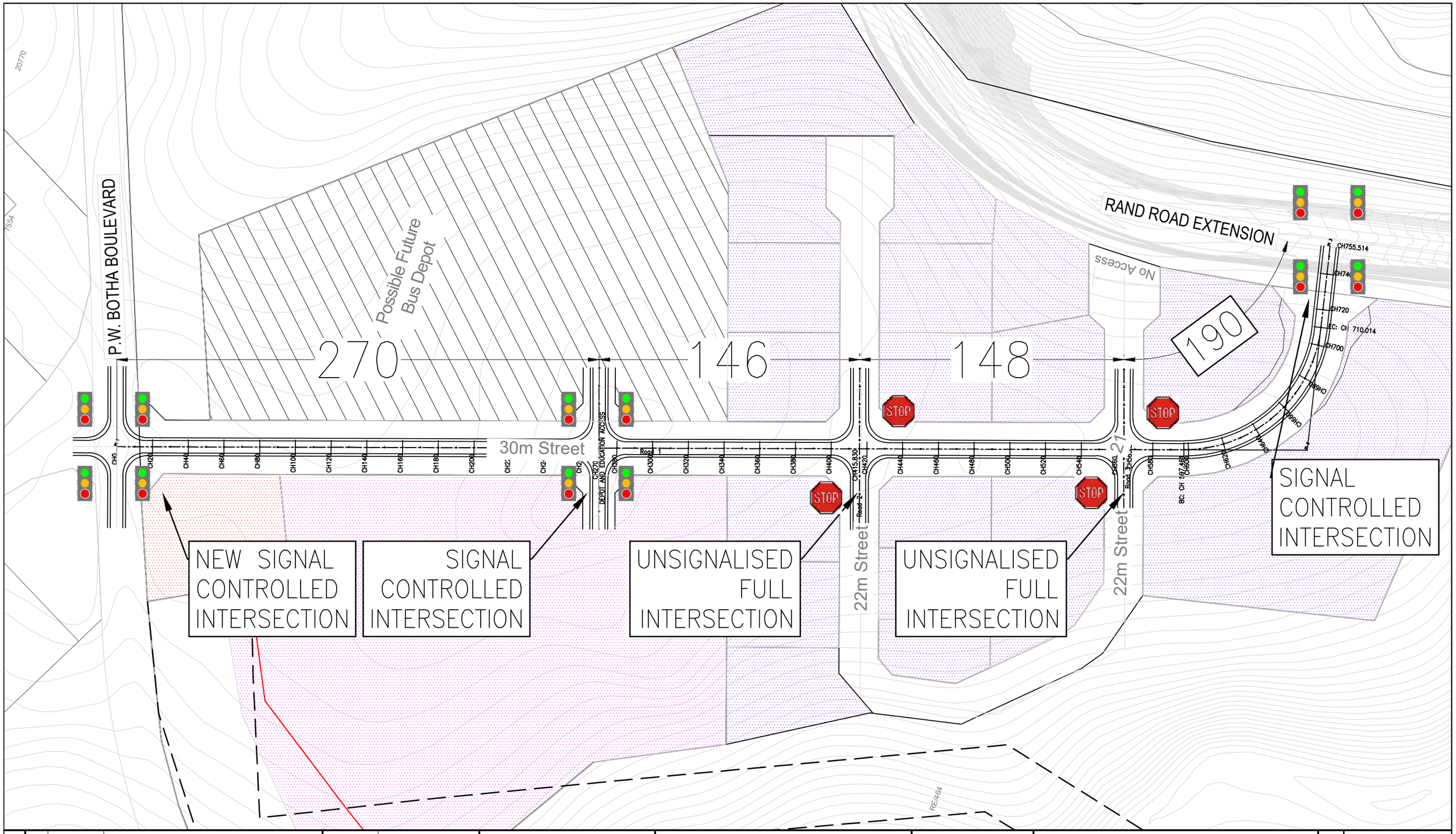
PROJECT: METROGROUNDS: INDUSTRIAL DEVELOPMENT
TITLE: Zoning Drawing
DRAWING No.: PROJECT No. 1002372 – WBS 0000 – TYPE DRG – DISC CC – NUMBER 0001 – REV D

807

Plot Date: 15/1/2025 2:59:22 pm Office: GEORGE Filename: C:\USERS\MORNAY.RICHARDS\DUTAMP\R000\0078.00 METRO MIXED USE - DOCUMENTS\005 DELIS\02 DWGS\ENVIRONMENTAL\METROGROUNDS_ZONING D_ENVIRONMENTAL SENSITIVITIES.DWG

ANNEXURE C

DRAWINGS



Revisions	No.	Date	Description
	0	05/06/2024	FOR TIA PURPOSES
	1	21/02/2025	FOR TIA PURPOSES – UPDATED LAYOUT

Designed	F van AARDT (Pr Eng)
Checked	F van AARDT (Pr Eng)
Drawn	F van AARDT (Pr Eng)
Checked	F van AARDT (Pr Eng)

GEORGE
THE CITY FOR ALL REASONS

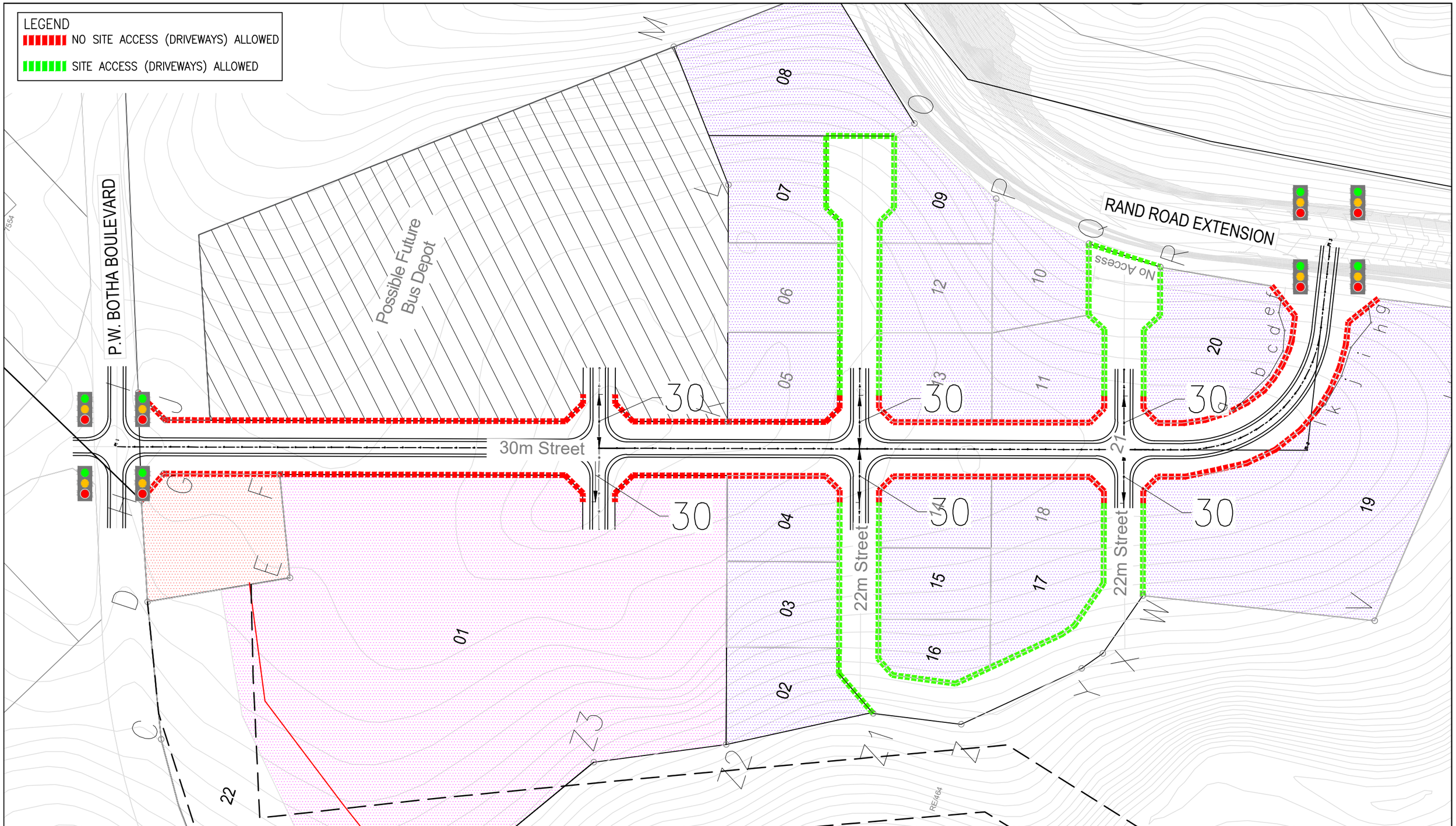
URBAN ENGINEERING
CONSULTING CIVIL AND STRUCTURAL ENGINEERS

METROGROUNDS
PROPOSED INTERSECTION CONFIGURATION

A3 | Scale NTS

Drawing No. 22-158-01

Rev No. 01



Revisions	No.	Date	Description
	0	05/06/2024	FOR TIA PURPOSES
	1	21/02/2025	FOR TIA PURPOSES – UPDATED LAYOUT

Designed	F van AARDT (Pr Eng)
Checked	F van AARDT (Pr Eng)
Drawn	F van AARDT (Pr Eng)
Checked	F van AARDT (Pr Eng)

GEORGE
THE CITY FOR ALL REASONS

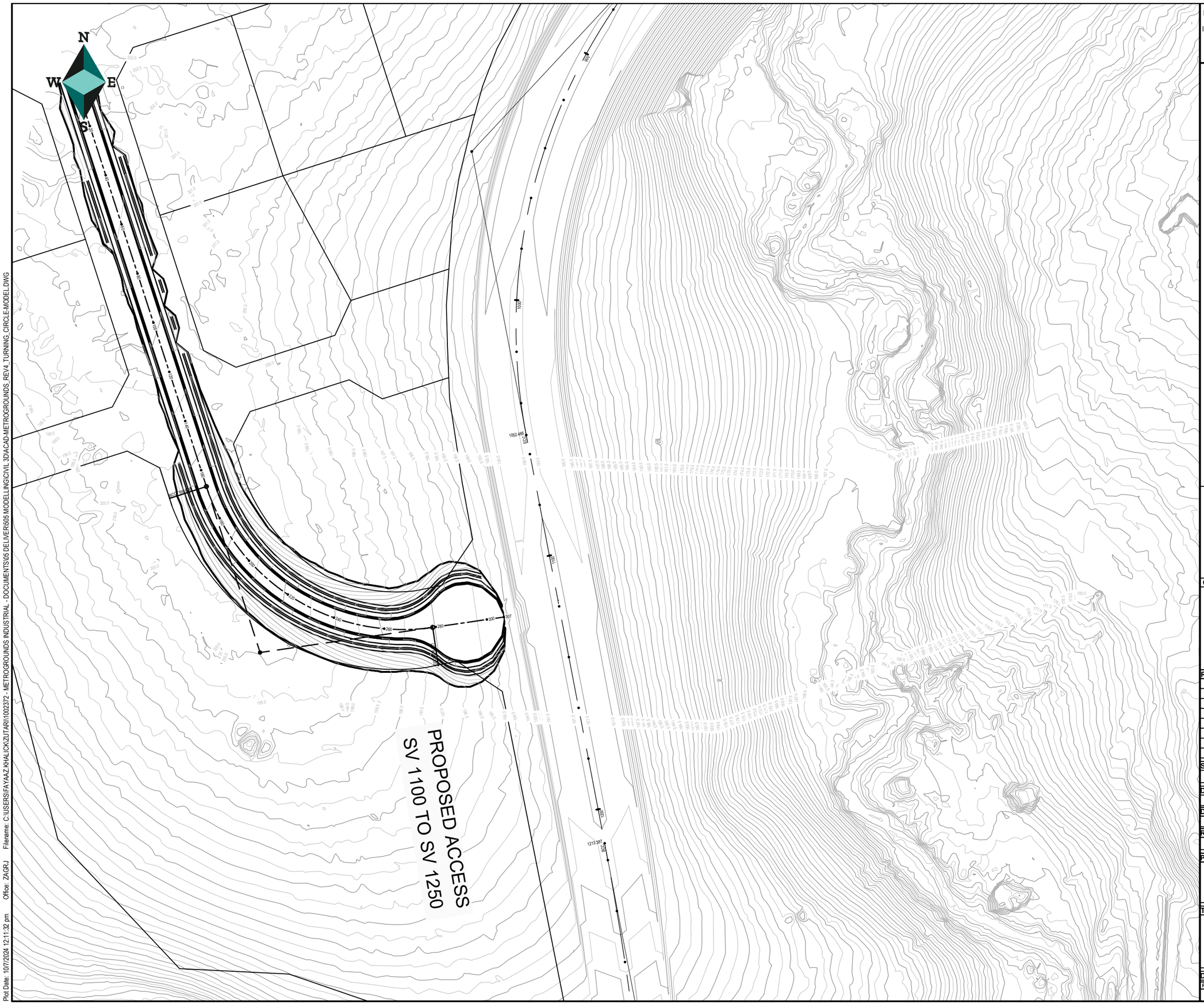
URBAN ENGINEERING
CONSULTING CIVIL AND STRUCTURAL ENGINEERS

METROGROUNDS DRIVEWAY LOCATIONS

A3	Scale NTS
Drawing No.	22–158–02
Rev No.	01

ANNEXURE D

ZUTARI CONCEPT TURNING CIRCLE PLAN



DISCLAIMER

IF CONSTRUCTION DRAWINGS ARE ISSUED UNSIGNED, THE MASTER WITH THE ORIGINAL SIGNATURE OF APPROVAL WILL BE HELD AT THE ZUTARI OFFICE OF THE APPROVER

RESPONSIBLE PERSONS (INTERNAL)			
	NAME	SIGNATURE	DATE
DRAWN			
DESIGNED			
REVIEWED			

ZUTARI
IMPACT. ENGINEERED.

CLIENT

REV	DATE	REVISION DETAILS	APPROVED
A			

SCALE	SIZE
AS SHOWN	A3

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN

DESIGNED

REVIEWED

APPROVED
DATE
AC KEYSER ECSA-200670188

PROJECT

TITLE

DRAWING NUMBER

PROJECT No.	WBS	TYPE	DISC	NUMBER	REV
-	0000	- DRG -		-	A

Plot Date: 10/7/2024 12:11:32 pm Office: ZAGRJ Filename: C:\USERS\FAYAAZ.KHALICK\ZUTARI\1002372 - METROGROUNDS INDUSTRIAL - DOCUMENTS\05 DELIVER\505 MODELLING\CIVIL 3D\ACAD-METROGROUNDS_REV4_TURNING_CIRCLE-MODEL.DWG

Department of Environmental Affairs and Development Planning
Gavin Benjamin
Development Management (Region 3)
gavin.benjamin@westerncape.gov.za | Tel: 044 814 2010

REFERENCE NUMBER: 15/3/2/12/BG1/Erf464George/01
ENQUIRIES: Riaan Thomson
DATE OF ISSUE: 7 January 2026

George Municipality
P.O Box 19
George
6530

Attention: Ms. Primrose Nako **Email**: pnako@george.gov.za

GEORGE MUNICIPALITY: PROPOSED SUBDIVISION, REZONING TO SUBDIVISIONAL AREA AND SUBDIVISION OF SUBDIVISIONAL AREA ON REMAINDER ERF 464, GEORGE

1. The request for comment, dated 29 October 2025, in terms of section 45 of the Western Cape Land Use Planning Act, 2014 (LUPA) Act 3 of 2014, on the above application, refers.

2. An application has been made for the following:

2.1 Subdivision in terms of Section 15 (2)(d) of the George Land Use Planning By-Law, 2023 of the Remainder Erf 464, George into two portions as follows:

- Portion 1 (A): approx.: 5,53ha; and
- Remainder: approx.: 217,68ha.

2.2 Rezoning in terms of Section 15 (2)(a) of the George Land Use Planning By-Law, 2023 of "Portion 1" from "Undetermined Use" to "Subdivisional Area" to permit a 'Transport Zone 1' to establish a 'bus depot'; and 'Transport Zone 2' to establish a 'public street'.

2.3 Subdivision in terms of Section 15 (2)(d) of the George Land Use Planning By-Law, 2023 of the Remainder Erf 464, George into two portions as follows:

- 'Portion 1' (bus depot): Approx.: 4,53ha; and
- 'Portion 2' (public street): Approx.: 1,00ha.

3. Remainder Erf 464, George is located at the intersection of P.W Botha Boulevard and Ossie Urban Road in George Industria. The site is located east of York Street and north of the N2 National Road. The property measures approximately 223,3 hectares in extent and is currently

zoned Undetermined in terms of the George Zoning Scheme Bylaw. An application has been submitted to subdivide and rezone a portion of approximately 4,53 hectares to accommodate the building of a new bus depo and approximately 1,00 hectares to construct a public access road to it.

4. The purpose of this application is to establish an appropriately zoned erf, within the industrial area and owned by the municipality, on which to develop bus depot as the Municipality have determined that the land on which the current bus depo exists, Erf 3471, George is a better suited strategic site which potentially offers greater value to the town given its location within the CBD and within the Restructuring Zone. The potential exists for Erf 3471 George to perform a more strategic function within the CBD, and in so doing, move the municipality closer to achieving its objectives and mandate concerning the provision of well-located affordable accommodation.

5. With regard to the applicable strategic planning policy documents, the application area is situated within in the urban core of George inside of the demarcated urban edge of the Municipal Spatial Development Framework, 2023. The MSDF earmarks this area as part of the industrial node and in close proximity to the proposed southern arterial road.

6. It is noted that there are specific environmental aspects on the property that would have to be addressed, such as the entire site being classified as a Critical Biodiversity Area (CBA1) and has formally been done in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) with the relevant authorities. The original Environmental Authorisation issued on 10 November 2010 has been extended numerous times and is currently valid until September 2028.

7. Based on the available information, this Department has no further comment on this development proposal from a Provincial Regulatory Land Use Planning point of view, provided that the above-mentioned points are considered during the evaluation of this application.

Gavin Benjamin

Digitally signed by Gavin Benjamin
Date: 2026.01.07 10:31:04 +02'00'

MR. GAVIN BENJAMIN

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION3)

WCG: DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

Copy to:

1. Mark Job
   JONO Trust Professional Town Planners
   mark@jonotrust.co.za

Western Cape Government

Cor Van Der Walt
LandUse Management
Email: Cor.VanderWalt@westerncape.gov.za
tel: +27 21 808 5099 fax: +27 21 808 5092

OUR REFERENCE : 20/9/2/4/3/389
YOUR REFERENCE : 25.325/Lt25-10-29_Advertising Notice To George Municipality
ENQUIRIES : Cor van der Walt

Jono Trust Town & Urban Planning
PO Box 706
HOWARD PLACE
7450

Att: Jono Trust Professional Planners

APPLICATION FOR SUBDIVISION, REZONING TO SUBDIVISIONAL AREA AND SUBDIVISION OF SUBDIVISIONAL AREA: DIVISION GEORGE
REMAINDER OF ERF NO 464

Your application of 29 October 2025 has reference.

The Western Cape Department of Agriculture has no objection to the proposed application.

Please note:

- That this is comment to the relevant deciding authorities in terms of the Subdivision of Agricultural Land Act 70 of 1970.
- Kindly quote the above-mentioned reference number in any future correspondence in respect of the application.
- The Department reserves the right to revise initial comments and request further information based on the information received.

Yours sincerely

Cor van der Walt

Digitally signed by Cor van der Walt
Date: 2026.01.20 21:47:30 +02'00'

Mr. CJ van der Walt
LANDUSE MANAGER: LANDUSE MANAGEMENT
2026-01-20

Copies:	
Department of Agriculture, Land Reform and Rural Development National Department of Agriculture Private Bag X 120 PRETORIA 0001	George Municipality PO Box 19 GEORGE 6530

Outlook

FW: Application for the rezoning of a property - App No: 2025-12-0024

From Mark Job <mark@jonotrust.co.za>
Date Thu 11 Dec 2025 11:37
To chirsten@jonotrust.co.za <chirsten@jonotrust.co.za>

Regards

MARK JOB Pr.Pln A/1367/2010

JONO TRUST
Urban Planning, Design & Project Facilitation
Mobile: 082 788 5816 Office landline: 021 532 1249
Fax: 086 560 9000
P.O. Box 706, Howard Place, 7450
Email: mark@jonotrust.co.za or planning@jonotrust.co.za
Website: www.jonotrust.co.za

"S.D.G"

From: Application Manager <applications@westerncaperoadsinfrastructure.org.za>
Sent: Monday, 08 December 2025 07:48
To: mark@jonotrust.co.za
Subject: Application for the rezoning of a property - App No: 2025-12-0024

Dear Jono Trust ,

The message below refers to your application for the rezoning of a property (Application No - 2025-12-0024) submitted to the Western Cape Government on 2025/10/29.

Property related to the application

- Erf 464, GEORGE

Proclaimed Provincial Main Road 349 (MR00349; York Street), for which George Municipality is the Road Authority and this Branch the Approving Authority in terms of Roads Ordinance 19 of 1976, is affected by this application. Only upon receipt of George Municipality's Department Roads' positive comments to support and approve (in terms of Roads Ordinance 19 of 1976) this application will this Branch respond accordingly.

Best Regards,
Western Cape Government

J O N O T R U S T

town& urban planning **environmental design project facilitation**

13 Pine Close, Pinelands, 7405, P.O. Box 706 Howard Place, 7450
Tel: 079 585 4361; Fax: 086 560 9000; Email: planning@jonotrust.co.za

Our ref: 25.325/Lt26-02-10_Response WCG Infrastructure Dept.

10 February 2026

46 Market Street
George,
6529

Attention: Mrs. P. Nako & Mr. K. Mukhovha

RESPONSE TO WESTERN CAPE GOVERNMENT DEPARTMENT OF ROADS INFRASTRUCTURE'S COMMENT, REMAINDER ERF 464 GEORGE

Case Ref: 4331036

The department of Roads Infrastructure submitted a comment via email on the 8th of December 2025 listed as **Annexure 1: WCG Roads Infrastructure Comment**.

The department of Roads Infrastructure's comment states the following:

"Proclaimed Provincial Main Road 349 (MR00349; York Street), for which George Municipality is the Road Authority and this Branch the Approving Authority in terms of Roads Ordinance 19 of 1976, is affected by this application. Only upon receipt of George Municipality's Department Roads' positive comments to support and approve (in terms of Roads Ordinance 19 of 1976) this application will this Branch respond accordingly."

To which we respond:

The department's comment is directed at the existing Go-George bus depot site Erf 3472 George that is situated along York Street. Therefore, the department of Roads Infrastructure's comment is not relative to the land use application that was submitted on Remainder Erf 464 George.

Yours faithfully

_____

JONO TRUST PROFESSIONAL PLANNERS

Outlook

FW: Application for the rezoning of a property - App No: 2025-12-0024

From Mark Job <mark@jonotrust.co.za>
Date Thu 11 Dec 2025 11:37
To chirsten@jonotrust.co.za <chirsten@jonotrust.co.za>

Regards

MARK JOB Pr.Pln A/1367/2010

JONO TRUST
Urban Planning, Design & Project Facilitation
Mobile: 082 788 5816 Office landline: 021 532 1249
Fax: 086 560 9000
P.O. Box 706, Howard Place, 7450
Email: mark@jonotrust.co.za or planning@jonotrust.co.za
Website: www.jonotrust.co.za

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Best Regards,
Western Cape Government

SPECIAL POWER OF ATTORNEY

I, the undersigned, JOHANNES FRANCISCUS KOEGELENBERG

Identity Number 7906085048081

hereby confirm that I am the mandated representative of:

Remainder Erf 464 George (the property)

and do hereby nominate, constitute and appoint

JONO TRUST Professional Planners

To make the necessary applications to the relevant Authorities to apply for:

- Rezoning in terms of Section 15 (2)(a) of the George Land Use Planning By-Law (2023) to permit a transport use.
- Subdivision in terms of Section 15 (2)(d) of the George Land Use Planning By-Law(2023).

AND generally for effecting the purposes aforesaid, to do or cause to be done whatsoever shall be requisite, as fully and effectually, for all intents and purposes, as WE might or could do if personally present and acting herein; hereby ratifying, allowing and confirming and promising and agreeing to ratify, allow and confirm all and whatsoever our said agent shall lawfully do, or cause to be done, by virtue of these present.

_____SIGNED at George

(signed)

on this 3 day of October 2025
in the presence of the undersigned witnesses.

AS WITNESSES :

1._____

2._____