



Prefeasibility Executive Summary Report

1. Project Details

Project Name	Roads: Cape Town Integrator R300 Ring Road
Location	City of Cape Town
Sector	Economic
Department	Department Of Infrastructure
Project Owner	Corrie Landsberg
Project Manager	Corrie Landsberg

1.1 Project Scope

Scope of Work

(R300 North Freeway Extension - Phase 1)

The Scope of Work for Phase 1 of the R300 North Freeway Extension covers all activities required to plan, design, procure and construct a new **6-lane freeway** between **De Bron Road** and **Wellington Road**, forming the first part of Cape Town's future northern ring road system. The work includes engineering, environmental, geotechnical, structural, and operational components required to deliver a fully compliant, high-standard provincial freeway.

1. Project Limits and Functional Description

- Construction of approximately **5 km** of new freeway between **De Bron Road (south limit)** and **Wellington Road (north limit)**.
- Integration with SANRAL-managed section from **Stellenberg Interchange (N1) to De Bron Road**.
- Formation of a strategically significant portion of the **regional R300 ring road**, ultimately linking the N1, N7, M5 and R27.

2. Roadworks and Freeway Construction

2.1 Freeway Geometry & Pavement Works

- Construction of a **6-lane dual carriageway freeway** with central median and appropriate shoulders.
- Earthworks, fills, cut-to-spoil, and shaping of the corridor based on geotechnical and vertical alignment studies.
- Stormwater management infrastructure, including culverts, side drains, attenuation features, and erosion protection.
- Pavement layerworks, road surfacing, and road furniture (barriers, signage, road markings).

2.2 Vertical Alignment

- Optimised vertical alignment to support **free-flow travel speeds**, considering adjacent land uses and interchange geometry.

3. Interchanges and Road Structures

3.1 New and Upgraded Interchanges

Design and construction of grade-separated interchanges at:

- **De Bron Road**
- **Legato Drive**
- **Amadeus Drive**
- **Wellington Road**

Interchange configurations evaluated include:

- Conventional diamond
- Diamond/clover
- Diverging diamond The **conventional diamond** configuration is the base solution, allowing future scalability.

3.2 Bridge and Structural Works

- Multiple bridge structures (road-over-road and road-over-freeway).
- Structural designs based on:
 - Longitudinal configuration studies
 - Aesthetic requirements
 - Span length efficiencies
- Foundation construction using **auger piles**, selected after comparative evaluation of CFA piles, precast piles, and DCIS piles.

4. Geotechnical Investigations and Earthworks

- Full geotechnical investigation across the corridor.
- Determination of piling requirements due to inadequate near-surface bearing capacity.
- Recommendations for fill material, cut-slope stability, foundation design, and settlement controls.

5. Environmental Compliance and Authorisations

- Completion of the **Basic Assessment Report (BAR)** for DEA\&DP approval.
- Management of environmental impacts relating to:
 - Vegetation removal and topsoil handling
 - Heritage and noise considerations
 - Stormwater quality management
 - Construction footprint minimisation
- Implementation of Environmental Management Programme (EMPr) responsibilities during construction.

6. Traffic Engineering and Transport Planning

- Traffic modelling to determine capacities, LOS improvements and interchange spacing justifications.
- Evaluation of long-term integration with:

- N1 & N7 freeway systems
- Future R300 Phase 2 & 3 segments
- Local municipal road networks
- Design of temporary traffic accommodation during construction.

7. Public Transport and NMT Integration

- Provision for **future Bus Rapid Transit (BRT) infrastructure** as part of Cape Town's public transport system.
- Provision of **Non-Motorised Transport (NMT)** facilities at interchanges and adjacent community interfaces.

8. Utility Relocation and Services Coordination

- Identification, protection, and relocation of affected services:
 - Water
 - Sewer
 - Electricity
 - Telecommunications
- Coordination with utility owners and obtaining wayleave approvals.

9. Procurement, Contracting and Tender Documentation

- Development of full tender documentation using the **Design by Employer** strategy.
- Packaging of construction works into multiple CIDB-aligned contracts.
- Compliance with:
 - Western Cape Treasury Instructions
 - National Treasury Regulations
 - CIDB Standards
- Inclusion of requirements for:
 - B-BBEE
 - Targeted labour
 - EPWP work opportunities

10. Construction Phase Works

- Establishment of contractor site facilities.
- Execution of 42-month construction programme (June 2026 - Dec 2029).
- Ongoing quality control, contract administration, and health & safety management.
- Implementation of environmental controls and monitoring.
- Stakeholder and community engagement during construction.

11. Handover, Operations & Maintenance Preparation

- Final inspections, snagging, and commissioning of all assets.
- As-built drawings and operation manuals.
- Handover of the freeway to the Western Cape Department of Infrastructure for long-term operation and maintenance, funded through provincial road maintenance budgets.

1.2 Justification

The Western Cape has experienced rapid and sustained population and economic growth over the past two decades, adding more than **2.1 million residents since 2000**. This growth has placed immense pressure on Cape Town's ageing transport network, which has not benefitted from major catalytic infrastructure investment since the **2010 FIFA World Cup**, and even then, improvements were limited and not transformative for the broader metropolitan road system.

The resulting strain on the road network--particularly on strategic mobility corridors such as the **N1 between the R300 and the N7**, which currently carries between **120 000 and 150 000 vehicles per day**--has led to severe congestion, extended peak periods, and declining levels of service. These conditions have contributed to higher road-user costs, increased vehicle operating costs, declining network resilience, and elevated safety risks for motorists due to congestion-induced driver frustration.

To address this growing infrastructure deficit, the Western Cape Government's Department of Infrastructure identified the **R300 North Freeway Extension - Phase 1** as a critical intervention within the broader **Cape Town Integrator (CTI) Programme**. The CTI seeks to integrate major mobility systems across the metropolitan area, unlock economic development, and create an efficient and equitable transport network supporting regional growth, job creation, and spatial transformation.

The R300 North Extension forms the first step toward completing Cape Town's only true **ring-road system**, ultimately linking the **R27, N7, N1, and M5**. Phase 1 covers an initial **5 km stretch between De Bron Road and Wellington Road**, bridging a critical gap in the regional mobility grid and providing alternative routing to relieve pressure on heavily congested nodes such as the **Wingfield Interchange**. The road reserve for this project was proclaimed in 1973 and preserved ever since, demonstrating longstanding strategic intent.

Beyond traffic relief, the extension is a powerful **catalytic infrastructure investment** with the ability to reshape land-use patterns, stimulate redevelopment, unlock dormant land parcels, and support emerging residential, commercial, and industrial growth--particularly around Durbanville, Fisantekraal, and the planned **Cape Winelands Airport** precinct. Catalytic road infrastructure of this nature typically induces secondary development, improves access to opportunity, and enhances urban efficiency.

Economic modelling using the **Social Accounting Matrix (SAM)** confirms the transformational impact of the project, estimating that construction-phase capital expenditure will generate:

- **R4.4 billion** in total production value
- Over **4 100 jobs** (direct, indirect, and induced)
- **R1.2 billion** in gross geographic product (GGP)
- **R464 million** in household income impacts

These outcomes affirm that the project will deliver substantial economic returns, both during construction and through long-term reductions in Road User Costs (travel time savings and lower VOCs). These benefits will expand further once future phases connect the R300 to the **N7** and **R27**, enabling efficient traffic distribution across the broader metropolitan network.

Despite its strategic importance, delivery of the R300 extension exceeds the Province's available funding, particularly given a **R34 billion road maintenance backlog** and ongoing climate-related damage to infrastructure. The Department has committed to fund approximately **25% of the Phase 1 cost**, but an additional **R1.0+ billion** is required from national sources over the next 4-5 years to complete the project without compromising maintenance of the existing 32 000 km provincial road network.

In summary, the R300 North Freeway Extension - Phase 1 is justified by:

- Severe regional congestion and inadequate capacity on key mobility corridors
- A rapidly growing population and urban expansion beyond the current road network's design limits
- Significant economic benefits, job creation, and developmental returns confirmed through modelling
- Strong alignment with NDP 2030, NATMAP 2050, Western Cape G4J Strategy, and national corridor priorities

- The need to unlock land for housing, industry, and logistics development, particularly around the north-east growth corridor
- The critical role of the R300 in establishing Cape Town's first true ring road

Collectively, these factors demonstrate that the project is **technically necessary, economically sound, spatially transformative, and essential to the long-term growth and resilience of the Western Cape**

1.3 Sector Specific Analysis

1.4 Market Size And Demand Analysis

1.4.1 Total Addressable Market (TAM)

- **Population served by a transport corridor**
- **Data sources**
 - Demographic
 - Geographic
 - Environmental and Biodiversity Data
 - Land Use and Spatial Planning Data
 - Regulatory and Compliance Data

1.4.2 Served Available Market (SAM)

- **Location**
- **Capacity**
- **Which of the following criteria is being used to support this analysis in terms of Segmentation?**
 - Travel Purpose & Network Role
 - Region
 - Ecological Segmentation
 - Geographic Segmentation
 - Development Impact Segmentation
 - Socio-Economic Segmentation

1.4.3 Demand Forecasting

2. Project Status & Implementation

2.1 Regulatory & Environmental Approvals

2.1.1 National Level

- Public Finance Management Act (PFMA) / Municipal Finance Management Act (MFMA)
- Environmental Impact Assessment (EIA) Regulations (2014, as amended)
- Land Use Approvals - If private land is purchased or stewardship agreements are signed, approvals for land use change may be required.
- Rail Safety Regulator
- Environmental Management Inspectors (EMIs): Responsible for compliance and enforcement of environmental regulations
- National Environmental Management Act (NEMA): Governs environmental management and authorization processes, including Environmental Authorizations (EAs)
- Environmental Management Frameworks (EMFs): Strategic planning tools for land-use and environmental management decisions

2.1.2 Provincial and Local Levels

- City of Cape Town

- Provincial Transport Authorities / Regulatory Functions
- Municipal By-laws (Traffic, Informal Trading, Public Places, Noise)
- Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)
- Western Cape Department of Infrastructure
- Municipal Land Use Approvals
- Municipal Environmental Management
- Municipalities: Play a role in environmental management, especially in land-use planning and development applications
- Community Engagement - Mandatory consultation with local communities for stewardship agreements and social impact considerations.
- Local Municipality / Provincial Roads Authority
- Department of Infrastructure (DOI)
- Provincial Treasury, Western Cape

2.1.3 Other Relevant Entities

2.2 Identify Key Stakeholders

2.2.1 Government

- Department Of Infrastructure
- Provincial Treasury
- Local Government
- Department of Environmental Affairs and Development Planning
- City of Cape Town – Local planning, building plan approval
- Provincial Regulatory Authority (Transport)

2.2.2 State-Owned Entities

2.2.3 Private Sector

- Construction Companies
- Private Landowners
- Environmental Consulting Firms
- Engineering Firms
- Financial Institutions
- Technology and ICT providers

2.2.4 Civil Society

- Civil society organizations advocating for community needs
- Environmental and Conservation Organisations
- Local Communities

2.2.5 Other Stakeholders

3. Governance, Policy & Enabling environment

3.1 Legal and Regulatory Framework

3.1.1 Procurement and Supply Chain Management

- Preferential Procurement Policy Framework Act (PPPFA)
- Western Cape Procurement Regulations

- Competition Act
- Environmental Feasibility

3.1.2 Financial Feasibility

- Capex and Opex by phase
- Financial and Commercial Feasibility

3.1.3 Legal and Regulatory Feasibility

- Zoning, land-use rights, servitudes, and municipal approvals

3.1.4 Environmental and Land Use Planning

- Western Cape Land Use Planning Act (LUPA)
- Environmental Impact Assessment (EIA)

3.1.5 Public Finance and Governance

- National Treasury PPP Framework & Practice Notes
- Provincial Treasury Instructions and Budget Guidelines

3.1.6 Transport and Infrastructure

- Related transport regulations
- Western Cape Road Traffic Act

3.1.7 Environmental Compliance

- Requires Environmental Impact Assessments (EIAs) for certain developments

3.2 Governance policies

- National Development Plan (NDP)
- Western Cape Infrastructure Framework 2050 (WCIF 2050); Western Cape Infrastructure Strategy (WCIS)
- Provincial Land Transport Framework (PLTF)
- Comprehensive Integrated Transport Plan (CITP)
- Integrated Public Transport Network (IPTN)
- Growth for Jobs (G4J)
- National Land Transport Act (NLTA)
- Municipal Planning By-Laws
- National Environmental Management Act (NEMA)
- Environmental Impact Assessment (EIA) Regulations
- Legal and Regulatory Certainty
- Institutional Framework
- Financial Mechanisms
- Stakeholder Engagement
- Strategic Infrastructure Projects (SIPs)
- Relevant Integrated Development Plans (IDPs)
- Infrastructure South Africa (ISA)
- Budget Facility for Infrastructure (BFI)
- National Biodiversity Offset Guideline (2023)
- Provincial Guidelines

3.3. Investment Needs

3.3.1 Infrastructure Development

- Roads, bridges, and public transport systems.

3.4 Policy Incentives

3.4.1 Sector-Focused Incentives

- Inclusive Infrastructure Development
- Gender-Responsive Procurement
- Youth Empowerment
- Economic Inclusion

3.4.2 Investment Ecosystem Support

- Western Cape Infrastructure Pipeline / DOI support
- WCIF 2050 Panoptic Evaluation framework

4. Financial requirements & Funding strategies

4.1 Project Guestimate

Estimated Cost	R 1.27B
----------------	---------

5. Delivery Mechanism & procurement strategy

5.1 WCG Sector Priorities

Outcomes	Social	Energy & Water	Economic	Technology	Ecological
Infrastructure investment drives spatial transformation and improves spatial resilience			Long Term 15-30 YRS		
Mobility systems and transportation corridors provide safe and efficient connectivity to opportunities, services, and facilities			Long Term 15-30 YRS		

5.2 Current Planning Phase