

SCOPE OF WORKS PRESENTATION: CONSULTING ENGINEERING SERVICES (OPEX)

CLARIFICATION MEETING

WESTERN REGION

21 FEBRUARY 2024

SANRAL



BUILDING SOUTH AFRICA
THROUGH BETTER ROADS

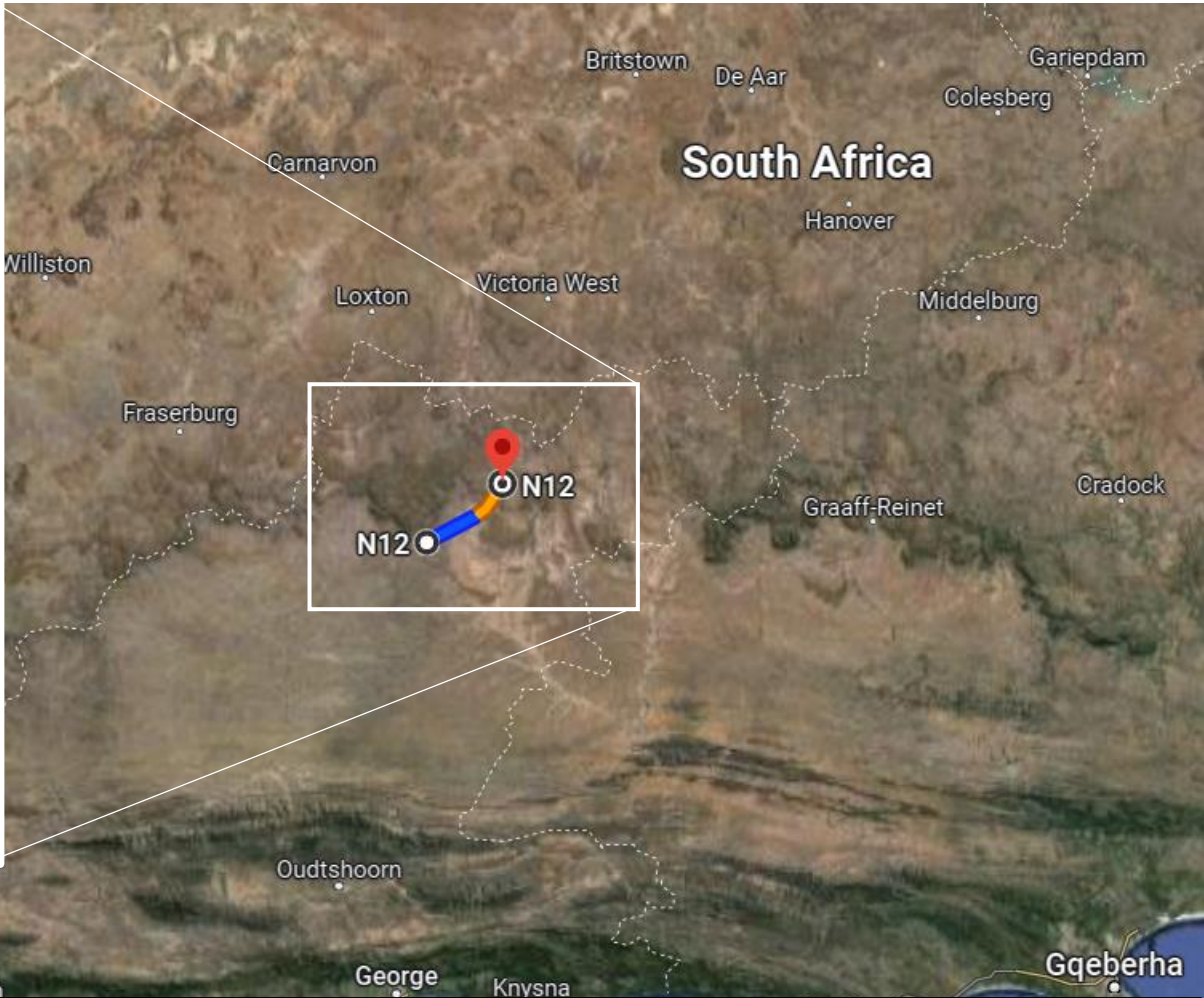
TENDER CLARIFICATION FOR PROJECTS

No.	Contract Number	Description
1	N.001-080-2024/1RF	CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESEAL) OF NATIONAL ROUTE 1 SECTION 8 FROM BEAUFORT-WEST (KM 4.00) TO NELSPOORT (KM 45.20)
2	N.002-040-2024/1RF	CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESURFACING) OF NATIONAL ROUTE N2 SECTION 4 FROM RIVIERSONDEREND (KM 0.00) TO SWELLENLHAM (KM 56.92)
3	N.007-040-2023/2RF	CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESURFACING) OF NATIONAL ROUTE 7 SECTION 4 FROM KLAVER TO VANRHYNSDORP
4	N.014-010-2023/1RF	CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESURFACING) ON NATIONAL ROUTE 14 SECTION 1 FROM SPRINGBOK (KM 0.00) TO POFAADDER (KM 162.71)
5	N.014-020-2023/1RF	CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESURFACING) OF NATIONAL ROUTE 14 SECTION 2 FROM POFAADDER (KM 0.00) TO ALHEIT (KM 122.50)
6	N.014-050-2024/1RF	CONSULTING ENGINEERING SERVICES FOR THE SPECIAL MAINTENANCE ON NATIONAL ROUTE 14 SECTION 5 FROM ADEISESTAD (KM 40.0) TO MIERSHOOP (KM 80.0) AND FROM PALEISHEUWEL (KM 120.0) TO OLIFANTSHOEK (KM 166.038)
7	R.369-020-2024/1RF	CONSULTING ENGINEERING SERVICES FOR THE SPECIAL MAINTENANCE ON NATIONAL ROUTE R369 SECTION 2 BETWEEN HOPETOWN (KM 0.00) AND THE MUNICIPAL BORDER (KM 47.17) R387 INTERSECTION
8	R.385-030-2024/1RF	CONSULTING ENGINEERING SERVICES FOR THE SPECIAL MAINTENANCE OF NATIONAL R385 SECTION 3 FROM DANIELSKUIL (KM 0.00) TO POSTMASBURG (KM 48.90)
9	X.005-061-2024/1RF	CONSULTING ENGINEERING SERVICES FOR THE SPECIAL MAINTENANCE OF NATIONAL ROUTES R48/4N FROM PETRUSVILLE (KM 0.0) TO R369 I/S (KM 15.10) AND R369/2E FROM KM 47.17 TO KM 67.95

C3.1.2. LOCATION OF THE PROJECT(S)

N.001-080-2024/1RF

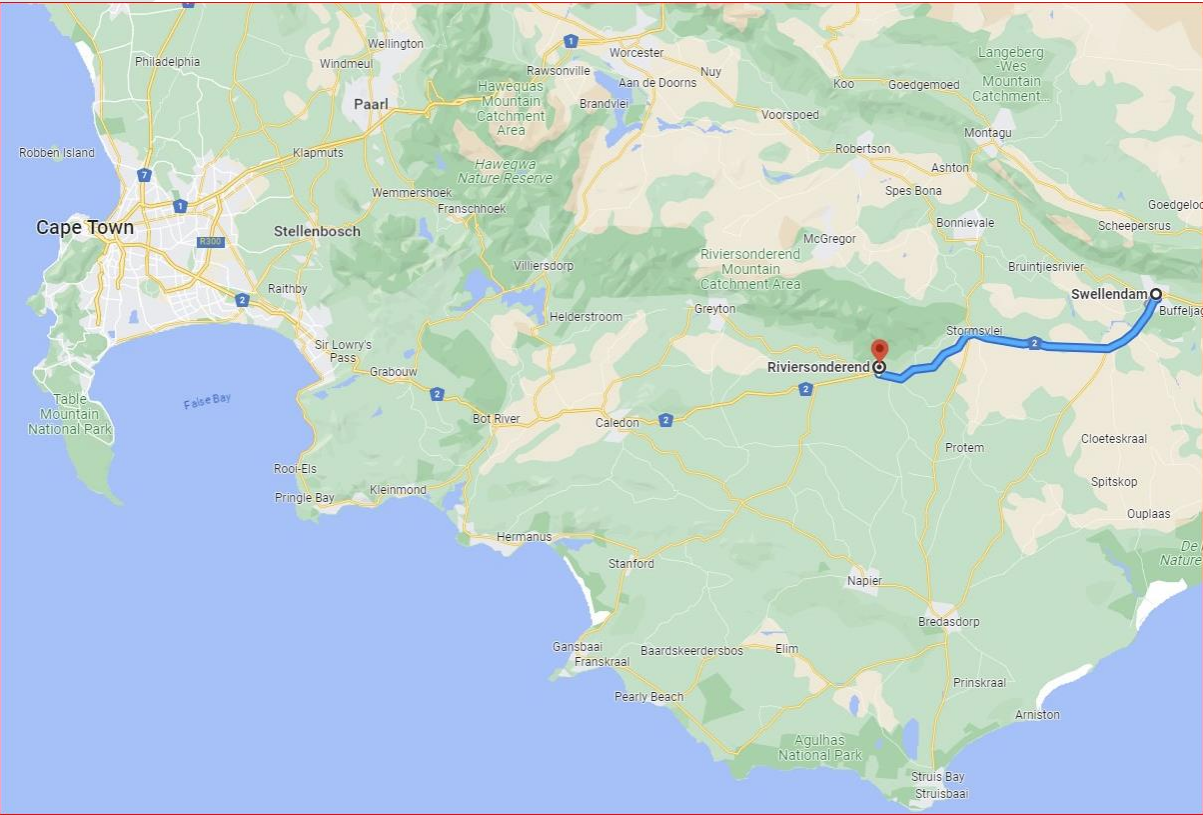
CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESEAL) OF NATIONAL ROUTE
1 SECTION 8 FROM BEAUFORT-WEST (KM 4.00) TO NELSPOORT (KM 45.20)



ROUTE	SECTION	FROM KM	TO KM	LENGTH KMS
N1	8	4.00	45.20	45.20
Total =				41.20

N.002-040-2024/1RF

CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESURFACING) OF
NATIONAL ROUTE N2 SECTION 4 FROM RIVIERSONDEREND (KM 0.00) TO SWELLENDAM (KM 56.92)



ROUTE	SECTION	FROM KM	TO KM	LENGTH KMS
N2	4	0.00	56.92	56.92



Sensitivity - General

N.007-040-2023/2RF

CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESURFACING) OF
NATIONAL ROUTE 7 SECTION 4 FROM KLAWER TO VANRHYNSDORP



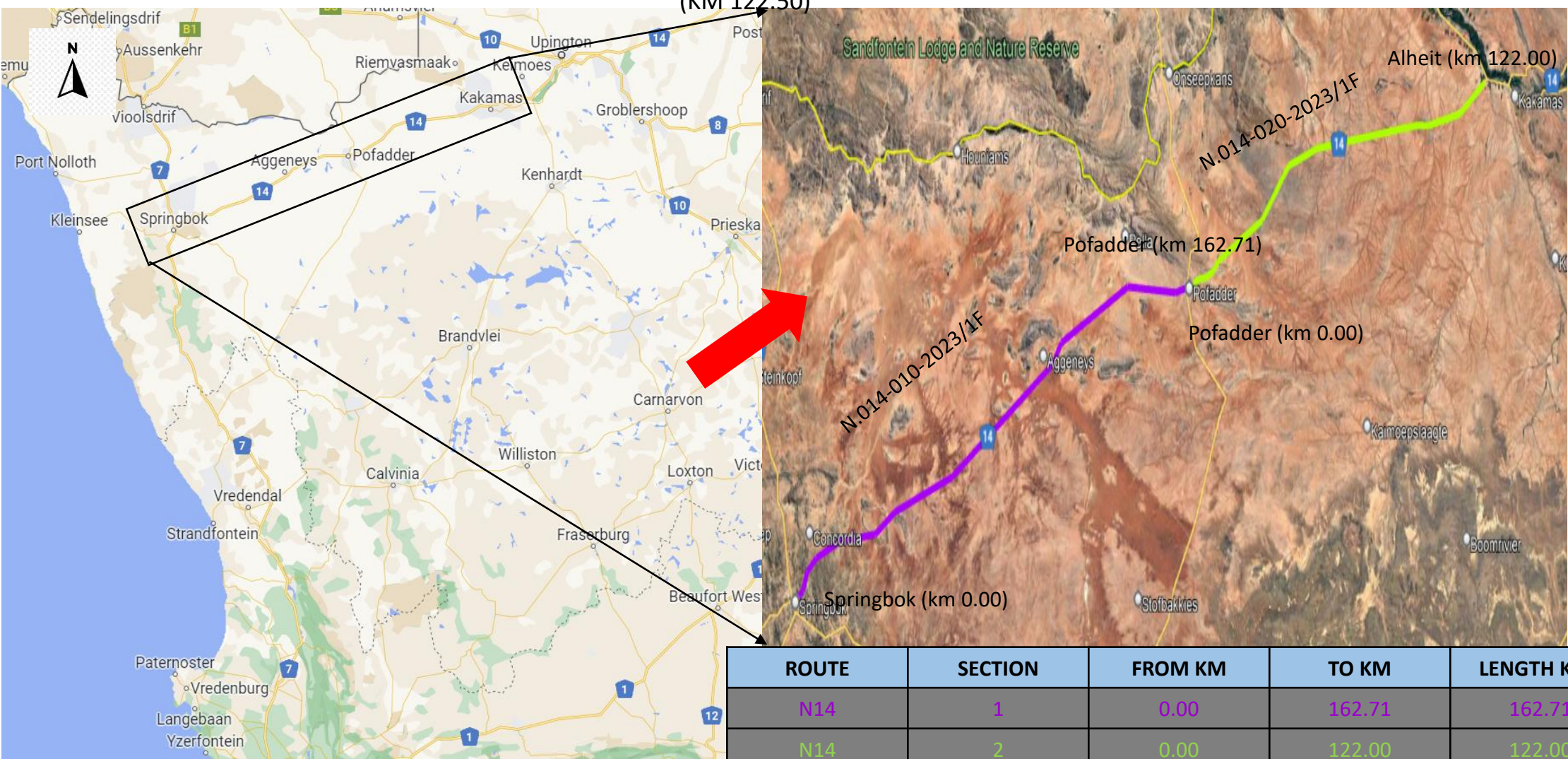
ROUTE	SECTION	FROM KM	TO KM	LENGTH KMS
N7	4	54.85	75.51	20.66
Total =				20.66

N.014-010-2023/1RF

CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESURFACING) ON NATIONAL ROUTE 14 SECTION 1 FROM SPRINGBOK (KM 0.00) TO POFADDER (KM 162.71)

& N.014-020-2023/1RF

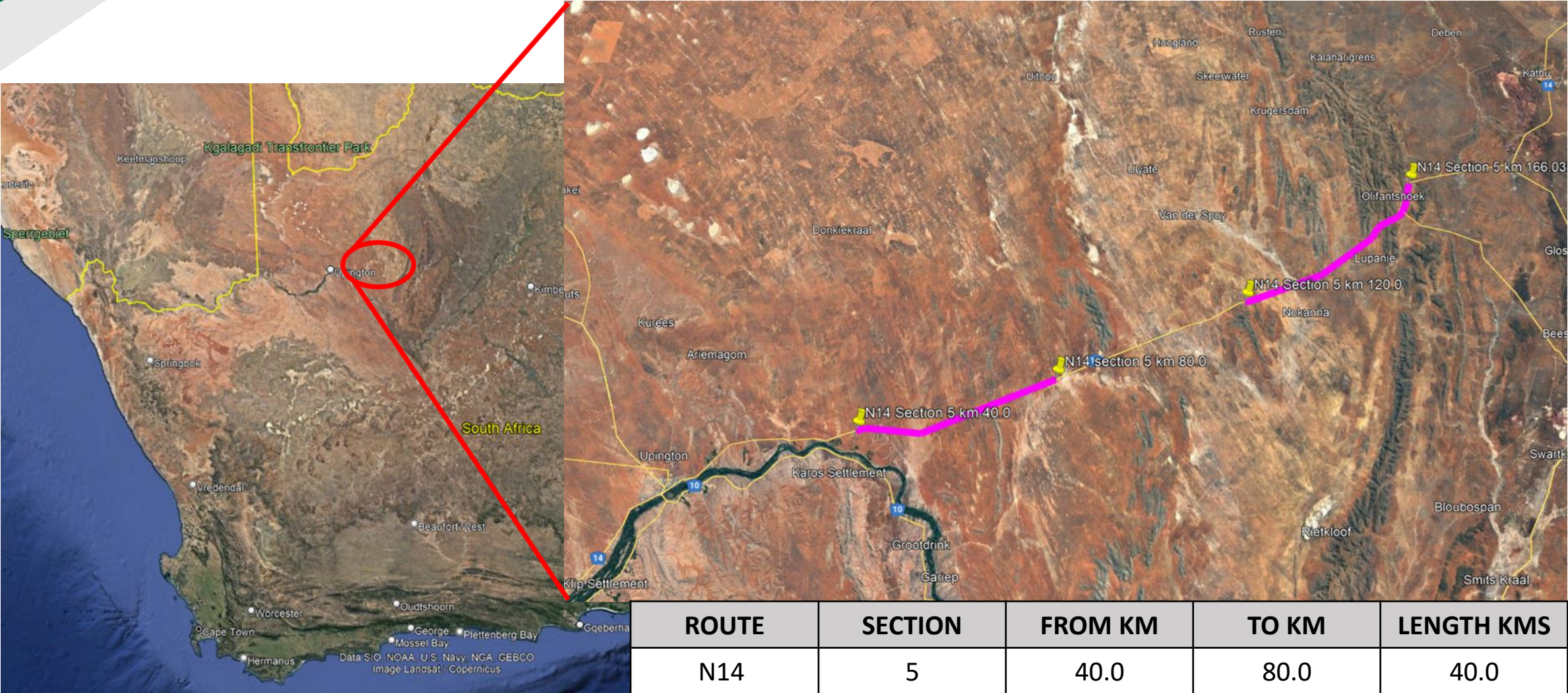
CONSULTING ENGINEERING SERVICES FOR THE PERIODIC MAINTENANCE (RESURFACING) OF NATIONAL ROUTE 14 SECTION 2 FROM POFADDER (KM 0.00) TO ALHEIT (KM 122.50)



ROUTE	SECTION	FROM KM	TO KM	LENGTH KMS
N14	1	0.00	162.71	162.71
N14	2	0.00	122.00	122.00
Total =				284.71

N.014-050-2024/1RF

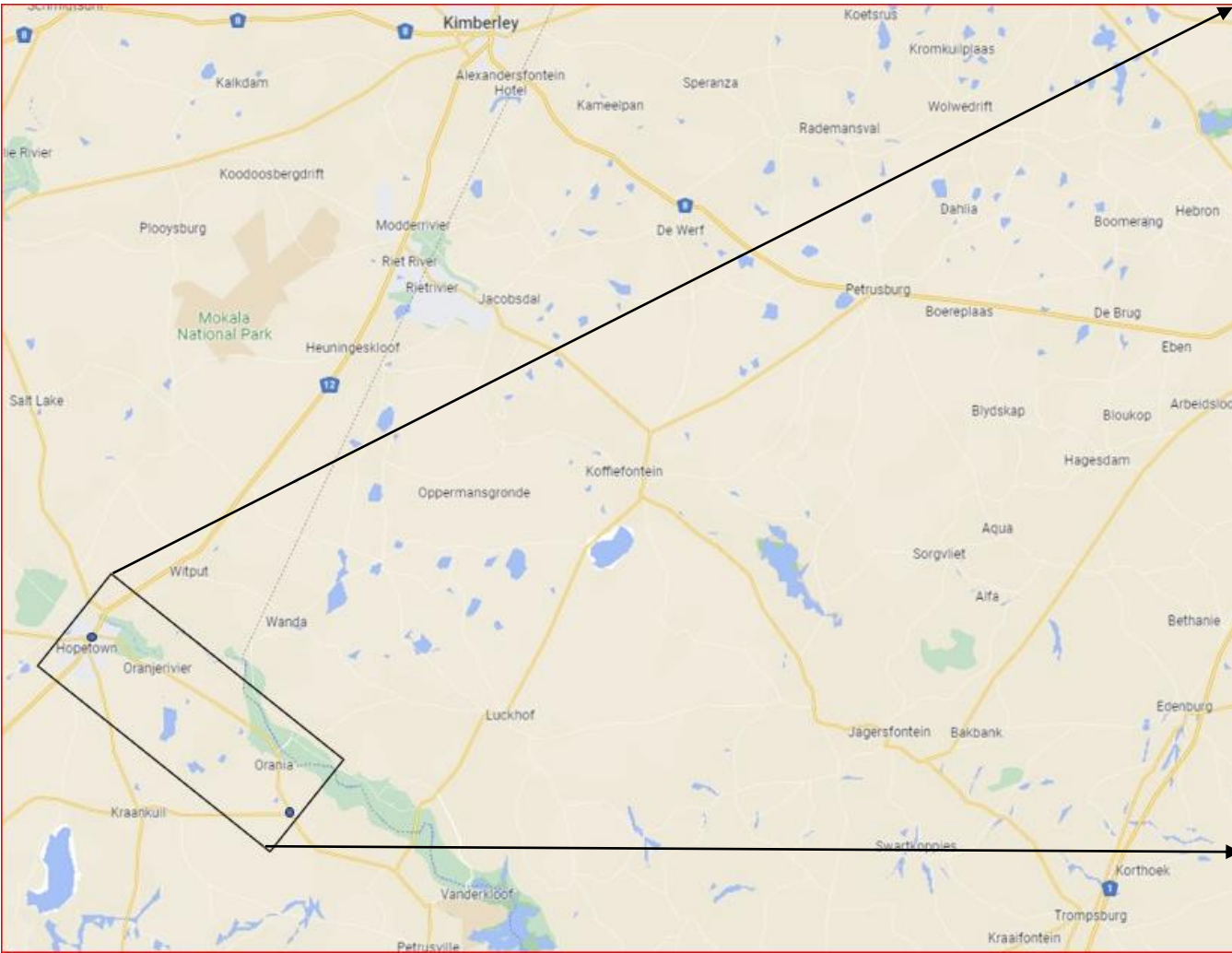
CONSULTING ENGINEERING SERVICES FOR THE SPECIAL MAINTENANCE ON NATIONAL ROUTE 14 SECTION 5 FROM ADEISESTAD (KM 40.0) TO MIERSHOOP (KM 80.0) AND FROM PALEISHEUWEL (KM 120.0) TO OLIFANTSHOEK (KM 166.038)



ROUTE	SECTION	FROM KM	TO KM	LENGTH KMS
N14	5	40.0	80.0	40.0
N14	5	120.0	166.038	46.038
Total =				80.038

R.369-020-2024/1RF

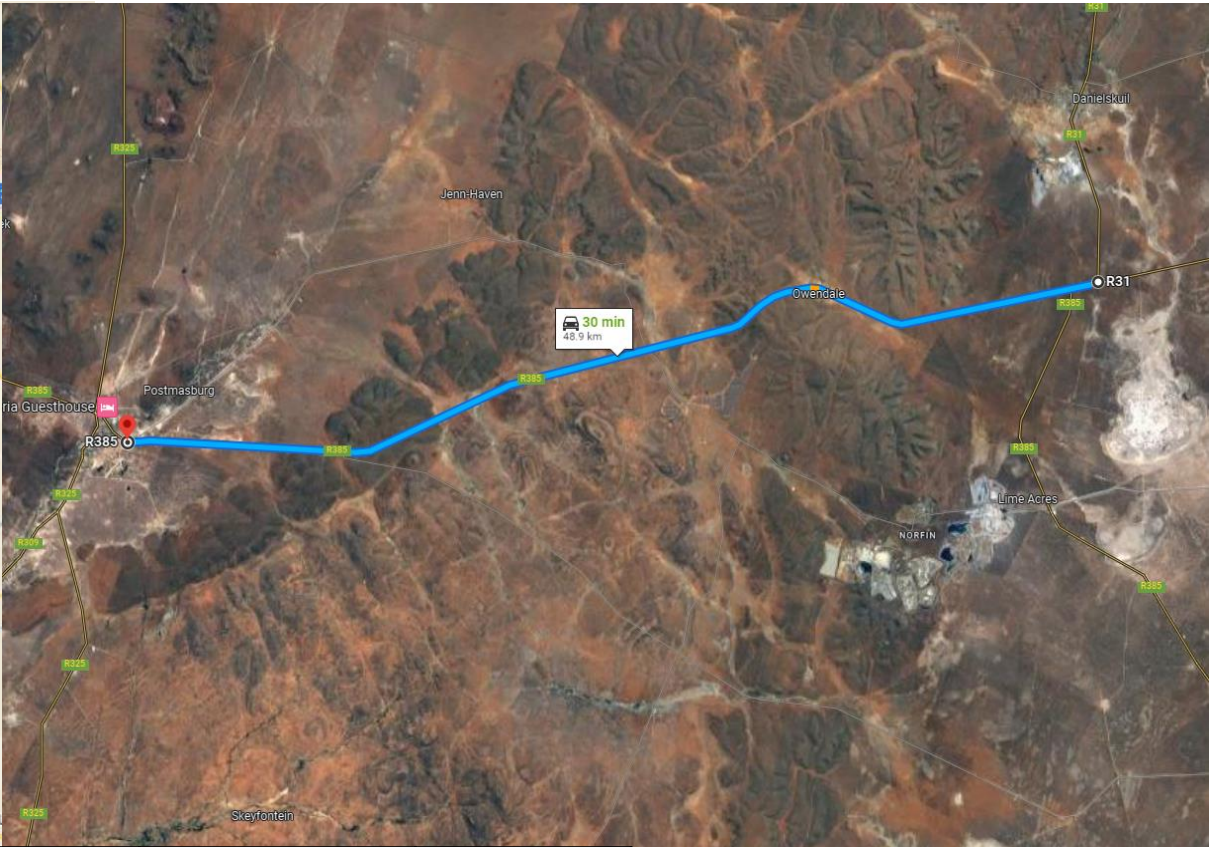
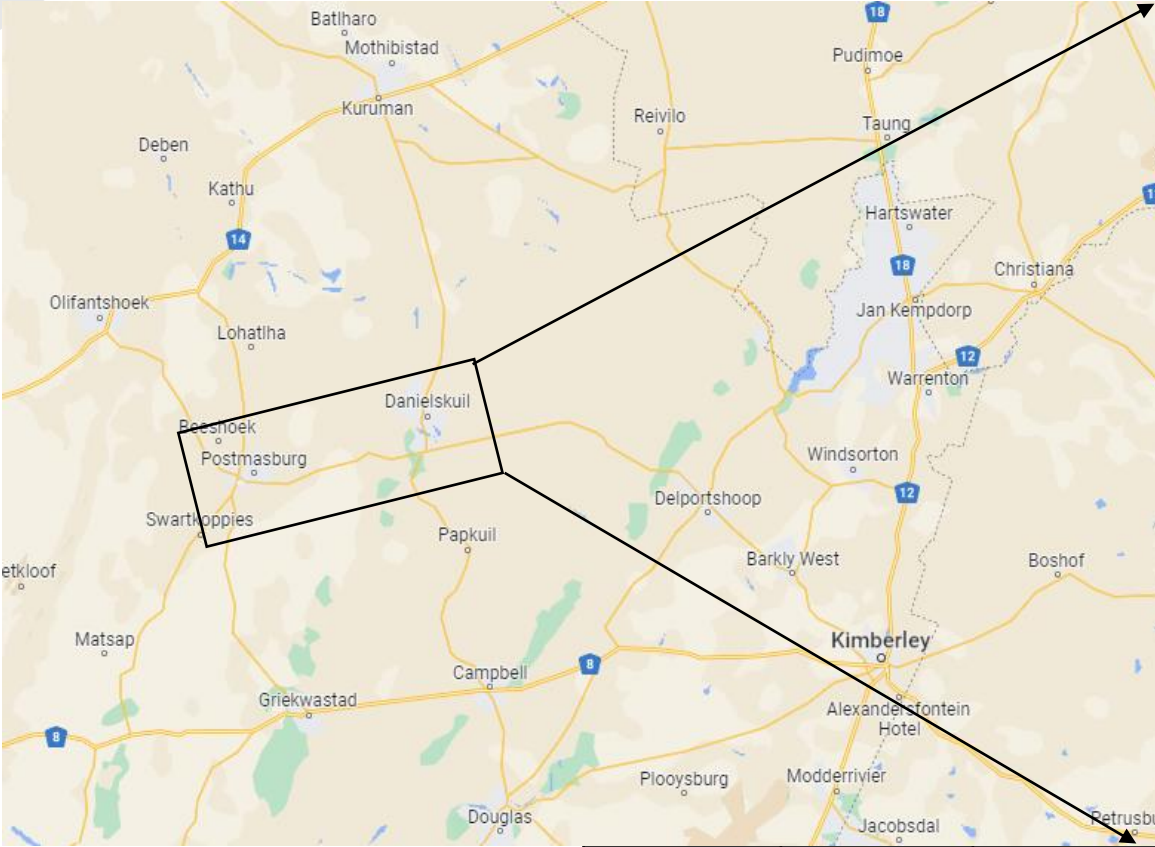
CONSULTING ENGINEERING SERVICES FOR THE SPECIAL MAINTENANCE ON NATIONAL ROUTE R369 SECTION 2
BETWEEN HOPETOWN (KM 0.00) AND THE MUNICIPAL BORDER (KM 47.17) R387 INTERSECTION



ROUTE	SECTION	FROM KM	TO KM	LENGTH KMS
R369	2	0.00	47.17	47.17

R.385-030-2024/1RF

CONSULTING ENGINEERING SERVICES FOR THE SPECIAL MAINTENANCE OF NATIONAL R385 SECTION
3 FROM DANIELSKUIL (KM 0.00) TO POSTMASBURG (KM 48.90)



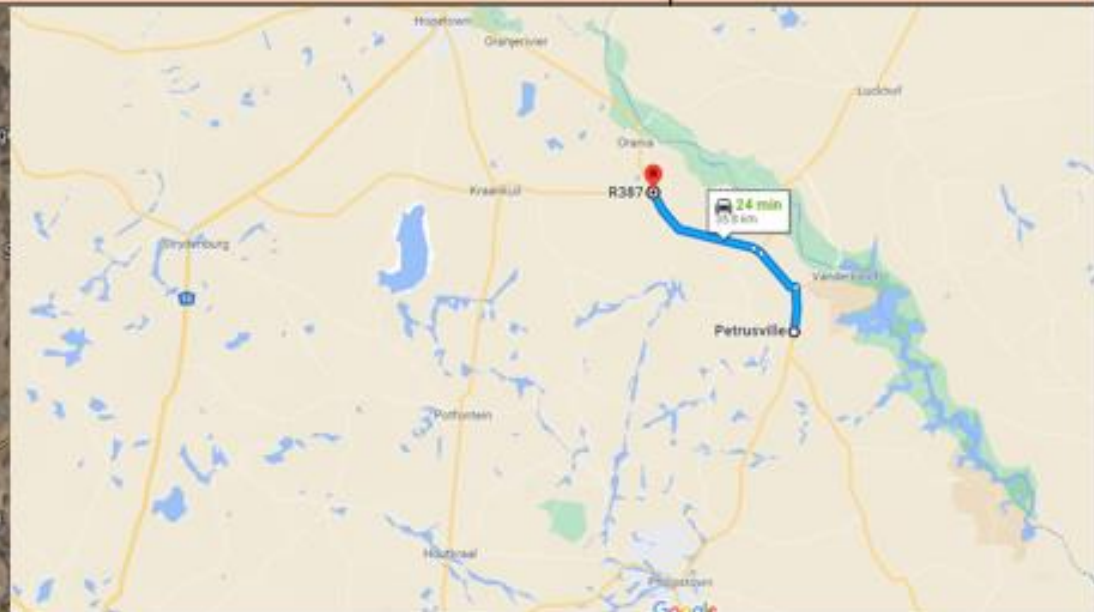
ROUTE	SECTION	FROM KM	TO KM	LENGTH KMS
R385	3	0.00 (POSTMASBURG)	48.9 (DANIELSKUIL)	48.9

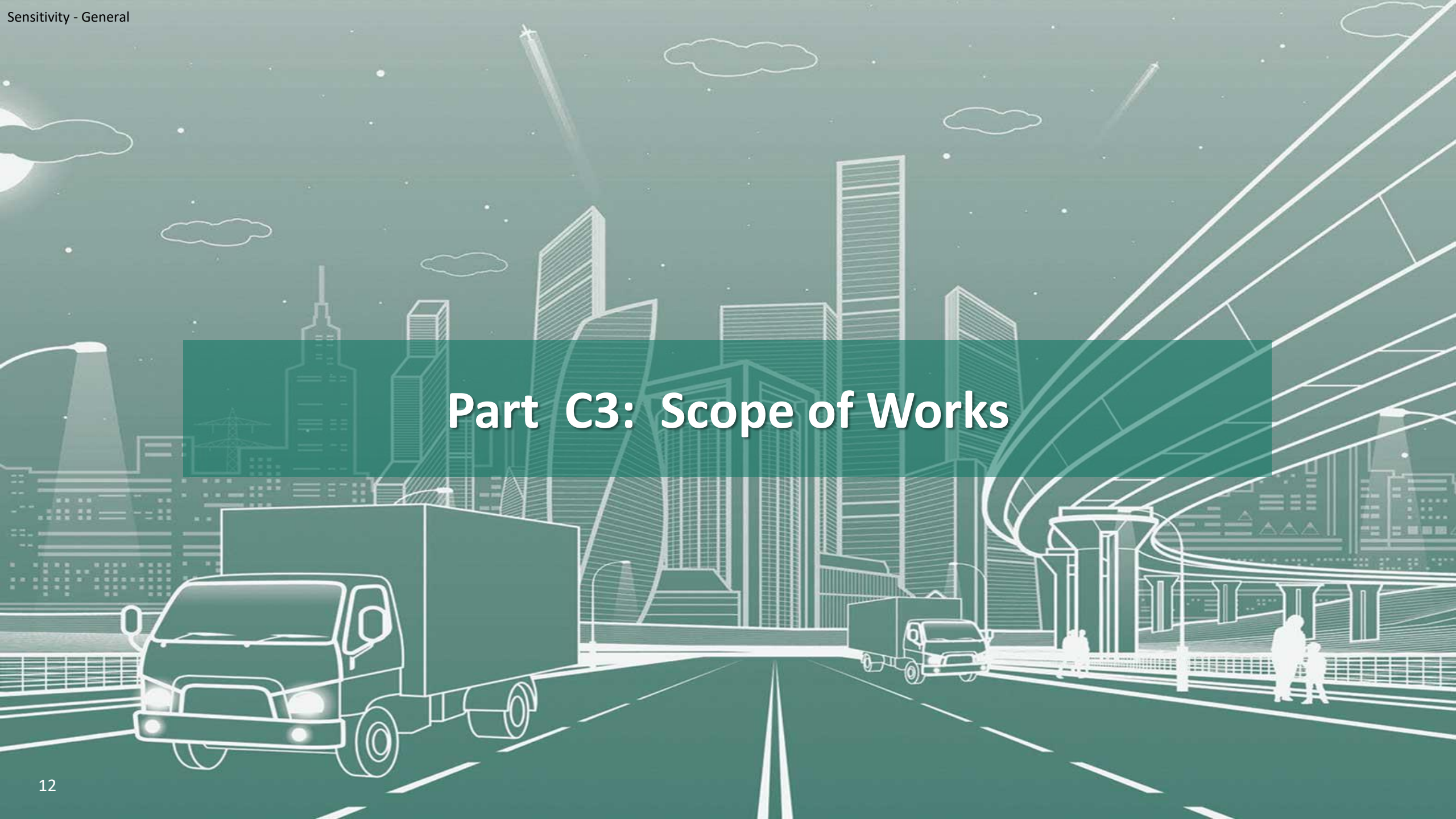
X.005-061-2024/1RF

CONSULTING ENGINEERING SERVICES FOR THE SPECIAL MAINTENANCE OF NATIONAL ROUTES
R48/4N FROM PETRUSVILLE (KM 0.0) TO R369 I/S (KM 15.10) AND R369/2E FROM KM 47.17 TO KM 67.95

National Routes R48/4N from Petrusville (KM 0.0) to R369 I/S (KM 15.10) and R369/2E from km 47.17 TO km 67.95

ROUTE	SECTION	FROM KM	TO KM	LENGTH KMS
R48/4N	4	0.00	15.10	15.10
R369/2E	2	47.17	67.95	20.78
Total =				35.88





Part C3: Scope of Works

C3.1 GENERAL REQUIREMENTS

C3.1.3 Description of the project: Periodic Maintenance Contracts

The envisaged scope of the works have been established through the SANRAL Asset Management System (AMS) verified by regional panel inspections.

Periodic Maintenance: The Employer's AMS currently indicates that the periodic maintenance will most probably take the form of appropriate **localised repair and pre-treatment** of the existing surface followed by the construction of an appropriate **surface seal and/or asphalt overlay**.

The Services required of the Service Provider are divided into the following distinct stages:

- Project Assessment.
- Investigations for Design Development.
- Design Development which shall include the following phases:
 - Preliminary
 - Detailed design
- Tender Documentation.
- Clarification Meeting, Tender Period and Tender Evaluation.
- Administration and Monitoring of the Works Contract.
- Additional duties, Special Services and Specialist Advice.
- Quality Control: Works Contract.
- Close Out.

C3.1.3 Description of the project: Special Maintenance Contracts

The envisaged scope of the works have been established through the SANRAL Asset Management System (AMS) verified by regional panel inspections.

The Employer's AMS currently indicates that the special maintenance will most probably take the form of **rehabilitation/strengthening of certain areas** over the project length including widening to a minimum 9.4m cross section while the remaining length will require a special maintenance. The periodic maintenance will most probably take the form of **appropriate localised repair and pre-treatment** of the existing surface followed by the construction of an appropriate surface seal and/or asphalt overlay.

The Services required of the Service Provider are divided into the following distinct stages:

- Project Assessment.
- Investigations for Design Development.
- Design Development which shall include the following phases:
 - Preliminary
 - Detailed design
- Tender Documentation.
- Clarification Meeting, Tender Period and Tender Evaluation.
- Administration and Monitoring of the Works Contract.
- Additional duties, Special Services and Specialist Advice.
- Quality Control: Works Contract.
- Close Out.

C3.1 GENERAL REQUIREMENTS

C3.1.4 Determination of Remuneration

(a) Fee determination

Table C3.1.4(b): Percentage points for phases/stages: Road Works, Structures, Building and Other

Type of Service	Concept Design (CD)	Preliminary Design (PD)	Detailed Design (DD)	Administration & Monitoring of works contract (AMW)	Close out (CO)	Total
Full service	5%	21%	42%	27%	5%	100%
CD	100%	0%	0%	0%	0%	100%
CD & PD	20%	80%	0%	0%	0%	100%
CD ,PD& DD	8%	31%	61%	0%	0%	100%
PD	0%	100%	0%	0%	0%	100%
PD & DD	0%	33%	67%	0%	0%	100%
DD, AMW, CO	0%	0%	63%	31%	6%	100%
PD, DD, AMW, CO	0%	22%	44%	28%	6%	100%
AMW & CO	0%	0%	0%	83%	17%	100%

C3.1 GENERAL REQUIREMENTS

C3.1.5 Employer's Cost Estimate

The sum of the estimated costs of the relevant work types (including pro-rata of Chapter 1.3 (Contractor's Site Establishment and General Obligations) of COTO Draft Standard Specifications) forms the basis on which the Service Provider shall tender his fee to cover all his costs to develop the detailed design including training.

Project assessment costs and production of tender documentation including evaluation of tenders received are not considered to contribute to the development of the design and are separately billed.

The final cost of the Works will, however, depend on the strategy selected by the Employer based on the most appropriate and cost-effective options identified by the Service Provider during the project assessment and design phases. Scope of work changes may cause an increase or decrease in the fee offered to produce the design.

C3.1.5 Employer's Cost Estimate – Works

No.	Contract Number	Cost Estimate Excl. VAT (Roadworks)	Cost Estimate (Structures)	Total Cost Estimate
1	N.001-080-2024/1RF	R 160 million	-	R 160 million
2	N.002-040-2024/1RF	R 192 million	-	R 192 million
3	N.007-040-2023/2RF	R 60 million	-	R 60 million
4	N.014-010-2023/1RF			
5	N.014-020-2023/1RF	R 365 million	-	R 365 million
6	N.014-050-2024/1RF	R 345 million	-	R 345 million
7	R.369-020-2024/1RF	R 250 million	R 15 million	R 265 million
8	R.385-030-2024/1RF	R 210 million	R 20 million	R 230 million
9	X.005-061-2024/1RF	R 180 million	R 33 million	R 213 million

C3.1.7 Stakeholder and Community Liaison and Social Facilitation

(a) Purpose: To give effect to the need for transparency and inclusion in the process of delivering services, the Service Provider shall liaise with the project Stakeholders and affected Communities for the duration of the contract's life cycle. This shall be achieved through structured engagement with the PLC which was established for this purpose.

d) Target Area for the sourcing of labour for Construction Contract:

The target area for the sourcing of labour only needs to be defined in consultation with the Project Liaison Committee (PLC) and may typically include:

- (i) One or more Provinces;
- (ii) One or more Metropolitan and District Municipalities;
- (iii) One or more Local Municipalities; or
- (iv) One or more Wards that are wholly located within an area within a predefined radius of the construction activity.
- (v) One or more of the areas listed in the definition of Designated Groups.

C3.1.7 Stakeholder and Community Liaison and Social Facilitation

(f) Project Liaison Committee (PLC) and Project Management Team (PMT):

A Project Liaison Committee (PLC) has either been established prior to commencement of the contract or shall be established as soon as possible by the Service Provider. The PLC represents the project's Stakeholders. The PLC consist of representatives of project Stakeholders and affected communities.

Where a PLC has not been established, the Service Provider, under the guidance of the Employer, shall establish such a committee within the boundaries of the Local and/or District Municipality. Allowance has been made for these requirements in the Pricing Schedule under Additional Duties.

C3.1 GENERAL REQUIREMENTS

C3.1.9 Project Programme

Table 3.1.9: Project Programme

	Project Stage/Phase	Stage/Phase Completion Date
A	Submission of Tenders / Proposals	Friday, 15 March 2024
B	Appointment of Service Provider	September 2024
C	Project Hand-over meeting	October 2024
D	First Progress meeting	November 2024
E	Submission of draft Assessment Report	February 2025
F	Submission of draft Concept Design Report	N/A
G	Submission of draft Preliminary Design Report	April 2025
H	Submission of Gateway Review Report (if applicable)	June 2025
I	Submission of Road Safety Audit Report: Stage 1 Feasibility and Preliminary Design	May 2025
J	Submission of draft Detailed Design Report including Structures, Drainage & Geotechnical Reports	July 2025
K	Submission of Road Safety Audit Report: Stage 3: Detail Design	September 2025
L	Submission of design information to SANRAL's Property Service Provider (PSP) for land acquisition purposes	August 2025
M	Submission of Basic Assessment Report or full EIA report	August 2025
N		
O		
P	Submission of WULA to approving authority	September 2025
Q	Submission of EMP's to approving authority	September 2025
R	Submission of Draft Tender Documents for the Works and final Detailed Design Reports	January 2026
S	Tender Advertisement	February 2026
T	Submission of Final Tender Documents for the Works	February 2026
U	Clarification Meeting	March 2026
V	Tender Closure	April 2026
W	Submission of Tender Evaluation Report	N/A
X	Works Contract Handover	June 2026
Y	Submission of draft Contract Report & as-built data	Within 3 months of issue of Taking-over Certificate for the Works
Z	Submission of final Contract Reports and as-built data	Within 1 month of issue of Performance Certificate for the Works

The program for each project will vary according to the specific project and scope requirements

C3.1 GENERAL REQUIREMENTS

C3.1.11 Personnel Requirements

Minimum Requirements

Position	Minimum Qualification/Registration	Minimum Relevant Experience (years) ³	Other Requirements
Project Leader	Pr Eng or Pr Tech Eng ¹	10	
Assistant Project Leader	Pr Eng or Pr Tech Eng ¹	<10	In permanent employment of the tendering entity or Targeted Enterprise
Design Specialist	Pr Eng or Pr Tech Eng ¹	10	
Assistant Design Specialist	Pr Eng or Pr Tech Eng ¹	<10	In permanent employment of the tendering entity or Targeted Enterprise
Surveyor	Registered Professional Surveyors, Technologist Surveyors, Technician Surveyors	5	Member of SAGC ⁷
Engineering Geologist	Pr Sci.Nat ⁵	5	SAIEG ⁴
Environmental Practitioner	Refer to sub-service procurement document		
OHS Specialist	Design Phase: SACPCMP ⁶ registration as a Professional Construction HSE Agent Construction Phase: SACPCMP ⁶ registration as a Professional Construction HSE Agent or Manager	As required by SACPCMP ⁶	
Road Safety Audit Team Leader	Pr Eng or Pr Tech Eng ¹	10	Road safety course (5 CPD) Minimum 2 (two) audits within 3 (three) years
Contract Engineer	Pr Eng ¹ or Pr Tech Eng ¹	10	

KEY PERSONS

Personnel requirements will vary depending on each projects specific scope requirements

Personnel requirements will vary depending on each projects specific scope requirements

Position	Minimum Qualification/Registration	Minimum Relevant Experience (years) ³	Other Requirements
Assistant Contract Engineer	Pr Eng or Pr Tech Eng ¹	<10	In permanent employment of the tendering entity or Targeted Enterprise
Engineer's Representative (RE)	Pr Eng or Pr Tech Eng ¹	5	
	Pr Techni Eng ¹	10	
Assistant RE	Candidate Technician ¹	1	
Senior Materials Technician	None specified	20	
	National Diploma in civil engineering	10	
	Pr Techni Eng ¹	5	
Materials Technician	None specified	10	
	National Diploma in civil engineering	5	
	Pr Techni Eng ¹	2	
Trainee Technician	Candidate Technician	0	

C3.1 GENERAL REQUIREMENTS

C3.1.11 Personnel Requirements

a) Key persons

The Service Provider's key persons become a contractual commitment upon award. However, the Employer recognises that key persons may for some or other reason not be available for the full duration of the project and any changes to those listed are, to all intents and purposes, a change or variation to the contract. Any proposed change should be handled formally by way of written request and approval, but does not require a Works Authorisation to be submitted. Replacement personnel shall be of same or better competence and experience as those initially accepted. Re-evaluation by the Employer of any replacement key persons shall be paid for by the Service Provider as specified in Section 3.8 unless the circumstances dictating the change are completely outside of the Service Provider's control.

The key persons required for this project are listed in Form C1.2.2 Contract Data: Information provided by the Employer. The tenderer must list proposed candidates for the prescribed positions in the core team in Form C1.2.3 Contract Data: Information provided by the Tenderer.

The key personnel required are project specific but will typically be comprised of:

- Project Leader
- Design Specialist (Pavement and materials engineer)
- Any additional design specialist if required (Project specific)

C3.1 GENERAL REQUIREMENTS

C3.7.3 Establishment of supervisory personnel on site

a) Supervisory team

The Service Provider shall be required to provide a team on site to monitor, administer and measure the Works in accordance with the requirements of the Works Contract, Employer's standard requirements and industry good practice.

Provision has been made in the Pricing Schedule for the envisaged staffing requirement. The establishment of such staff, however, shall be subject to the approval of the Employer. For the envisaged scope of the Works, the supervisory team will consist of at least the following:

- i) Resident Engineer
- ii) Assistant Resident Engineer/s
- iii) Materials Technician / Senior Materials Technician
- iv) Trainee Technician
- v) Trainee (student)
- vi) Project Liaison Officer
- vii) Administrative Assistants (data capture)
- viii) Mentors/Coaches for Targeted Enterprises (sub-contractors)

The minimum requirements for qualification and experience of the supervisory team are specified in Clause C3.1.11.

PART C4: SITE INFORMATION

Project specific details can be found under the site information section which include some of the following technical details pertaining to:

- Location of the project
- Geometric information
- Traffic information
- Pavement information
- Materials Sources
- Drainage
- Road Furniture

The as-built and historic data for each route section will be available on SARDS online (please refer to the SARDS Manual provided)

THANK YOU!

END