

SANRAL

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD



Reg No: 1998/009584/30

BUILDING SOUTH AFRICA
THROUGH BETTER ROADS

THE SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONTRACT SANRAL C.002-025-2018/1S

**CONSULTING ENGINEERING SERVICES
FOR THE ADMINISTRATION AND
MONITORING OF A COMMUNITY
DEVELOPMENT PROJECT TO UPGRADE
ACCESS ROADS IN AND AROUND
KWAGGAFONTEIN B NEAR NATIONAL
ROAD R573, SECTION 2 FROM KM 24.70 TO
KM 36.20**

BASE DATE: NOVEMBER 2022

TENDER DOCUMENT
VOLUME 1
BOOK 1 of 1

**CHIEF EXECUTIVE OFFICER
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED
48 TAMBOTIE AVENUE
VAL DE GRACE
PRETORIA, 0184**

NAME OF TENDERER:

Set sequential number



THE SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

THIS DOCUMENT COMPILED BY:

The Regional Manager (Northern Region)

The South African National Roads Agency SOC Ltd

38 Ida street,

Menlo Park,

PRETORIA

0081

Tel: (012) 426 6200 Fax: (012) 348 0883

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PART T1: TENDERING PROCEDURES

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PART T1: TENDERING PROCEDURES

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T1.1 TENDER NOTICE AND INVITATION TO TENDER (Incorporating SBD1)

CLOSING DATE (AT 11:00): 9 December 2022

The South African National Roads Agency SOC Limited (SANRAL) invites tenders for the provision of Consulting Engineering Services for **THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20**. This project is in the Province of the Mpumalanga and in the District Municipality of Nkangala and the approximate programme is for supervision of 24 months, commencing May 2023

Preferences are offered to Tenderers who comply with the criteria stated in the Tender Data.

Only Tenderers with a valid B-BBEE contributor status level of 1, 2, 3 or 4 and who is an EME or a QSE ; who are registered on the National Treasury Central Supplier Database at the tender closing date; and who are registered as consulting engineering firm as stated in the Tender Data are eligible to tender.

It is a requirement of this project that the Tenderer sub-contract a minimum of thirty percent (30%) of the work to Targeted Enterprises as defined in the Contract Data, unless the Tenderer is an EME or QSE with a B-BBEE contributor status level of 1 or 2, in which case there are no sub-contracting requirements.

Joint Ventures (JVs) will be allowed on condition that 1 (one) JV partner is a Targeted Enterprise. The JV partner will, however, not contribute to the sub-contract target for Targeted Enterprises (if applicable).

TENDER DOCUMENTS

Tender documents are available at no cost in electronic format and can be downloaded from SANRAL's website by following the link <https://www.nra.co.za/service-provider-zone/tenders/open-tenders/>. Tenderers must have access to Microsoft © Office 2013 and Acrobat Adobe © 9.0 or similar compatible software.

Tenderers must submit, via email, the duly completed Form A1.1 Certificate of Intention to Submit a Tender prior to 21 November 2022. Failure to submit this certificate would result in the tenderer not receiving addenda or additional issued information and may result in the tenderer being non-responsive.

TENDERER'S MEETING

A Tenderer's clarification presentation is available to be downloaded from SANRAL's website at <https://www.nra.co.za/service-provider-zone/tenders/open-tenders/>. Any questions or clarifications can be e-mailed to ProcurementNR3@sanral.co.za

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COMPLETION AND DELIVERY OF TENDERS

The closing time for receipt of tenders is 11:00 on 9 December 2022

Telegraphic, telephonic, telex, e-mail, facsimile and late tenders will not be accepted.

Tenders may only be submitted in the format as stated in the Tender Data.

Requirements for completing, sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

Queries relating to issues arising from these documents may be addressed to:

Name: Procurement Office

e-mail: ProcurementNR3@sanral.co.za

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T1.2 CONDITIONS OF TENDER

Note to Tenderers:

The Conditions of Tender are the Standard Conditions of Tender as contained in SANS 10845-3:2015 Edition 1, which is obtainable from:

SABS Standards Division
1 Dr Lategan Road
Groenkloof

Or

Private Bag X191
Pretoria
0001

Tel: +27 12 428 7911
Fax: +27 12 344 1568
website: www.sabs.co.za

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T.1.3 TENDER DATA

T1.3 TENDER DATA

The Standard Conditions and the Employer's Special Conditions of Tender for Procurement make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard or Special Conditions of Tender.

Each item of data given below is cross-referenced to the clause in the Standard and Special Conditions of Tender to which it mainly applies.

CLAUSE NUMBER	TENDER DATA												
2.1	Wherever reference is made in the documentation to Bill of Quantities it shall also mean Pricing Schedule.												
2.7	Wherever reference is made in the documentation to Contractor it shall also mean Service Provider.												
3.1	<div>1. The Employer is The South African National Road Agency SOC Limited (SANRAL). The Employer's domicilium citandi et executandi (permanent physical business address) is:</div> <div>48 Tambotie Avenue VAL DE GRACE 0184</div> <div>2. The Employer's address for communication relating to this project is:</div> <table><tr><td>Postal</td><td>or</td><td>Delivery</td></tr><tr><td>Private X17</td><td></td><td>38 Ida street</td></tr><tr><td>Lynnwood ridge</td><td></td><td>Menlo Park</td></tr><tr><td>0040</td><td></td><td>0081</td></tr></table>	Postal	or	Delivery	Private X17		38 Ida street	Lynnwood ridge		Menlo Park	0040		0081
Postal	or	Delivery											
Private X17		38 Ida street											
Lynnwood ridge		Menlo Park											
0040		0081											
3.2	<div>1. The tender documents issued by the Employer will be in electric format on CD and comprise the following: (Specific colours only applicable to the final signed contract document.)</div> <div>Part T1: Tendering Procedures T1.1 Tender Notice and Invitation to Tender T1.2 Standard and Special Conditions of Tender T1.3 Tender Data</div> <div>Part T2: Returnable Schedules T2.1 List of Returnable Documents T2.2 Tender Schedules</div> <div>Part C1: Agreements and contract data C1.1 Form of Offer and Acceptance (Yellow) C1.2 Contract Data (Yellow) C1.3 Other contract forms (Yellow)</div>												

	<p>Part C2: Pricing data</p> <p>C2.1 Pricing instructions (Yellow)</p> <p>C2.2 Pricing Schedules / Bills of Quantities (Yellow)</p> <p>Part C3: Scope of work</p> <p>C3 Scope of Work (Blue)</p> <p>Part C4: Site Information</p> <p>C4 Site Information (Green)</p> <p>Part C5: Annexure (White)</p>
3.4	<p>1. The Employer's Agent is Procurement Office, who can be contacted at:</p> <p>38 Ida Street, Menlo Park, Pretoria, 0081.</p> <p>Tel.: (012) 426 6200</p> <p>Email: ProcurementNR3@sanral.co.za</p> <p>2. The language for communications is English.</p>
3.5	<p>1. The tender process may be cancelled if:</p> <p>a) due to changed circumstances, there is no longer a need for the goods or services specified in the invitation;</p> <p>b) funds are no longer available to cover the total envisaged expenditure;</p> <p>c) no acceptable tender is received; or</p> <p>d) there is a material irregularity in the tender process.</p> <p>2. The period of 6 (six) months is not applicable.</p>
4.1.1	<p>1. Only those Tenderers who satisfy the following criteria are eligible to submit tenders:</p> <p>a) Meet the minimum requirements for the Key Persons as stated in the Scope of Works in Clause C3.1.11: Personnel Requirements. If the Key Person does not meet the stipulated minimum requirement for the tender, the tenderer will be declared non-responsive. Where scoring is applicable, the tenderer will be scored 0 points.</p> <p>b) Is registered on the National Treasury Central Supplier Database at the tender closing date.</p> <p>Tenderers, or in the event of a Joint Venture (JV), each member of the JV, shall be registered on the National Treasury Central Supplier Database at the closing date for tender submissions. Tenders received from Tenderers who do not comply with this requirement will not be considered.</p> <p>c) Criteria for preferential procurement:</p> <p>i) Tenderers that have a B-BBEE contributor status level of 1, 2, 3 or 4 and who is an EME or QSE.</p> <p>ii) Tenderers shall submit a valid B-BBEE certificate in compliance with Tender Data 5.11.8 as proof of eligibility.</p> <p>iii) Tenderers sub-contracting a minimum of 30% to Targeted Enterprises (with a B-BBEE contributor status level 1 or 2) in terms of Clause 4(1)(c) of the 2017 regulations to the Preferential Procurement Policy Framework Act of 2000 shall submit a fully completed Returnable Schedule Form B7 signed by both the</p>

	<p>Tenderer and Targeted Enterprise as proof of eligibility.”</p> <p>iv) All sub-contractors must be appointed in terms of the General Conditions of Contract in terms of this tender, reading in the necessary changes.”</p> <p>This must be in accordance with PPPFA Regulations, Section 9. (1), (2) and (3).</p> <p>2. Failure to satisfy the eligibility criteria may result in a non-responsive tender.</p>
4.6	Failure to apply instructions contained in Addenda may render a Tenderer's offer non-responsive in terms of Condition of Tender 5.8.
4.7	<p>1. The tenderer's clarification presentation and/or pre-recorded video are available on the following link: https://www.nra.co.za/service-provider-zone/tenders/open-tenders/.</p> <p>2. The onus rests with the Tenderer to ensure that the representative reading or viewing the briefing clarification presentation is appropriately qualified to understand all directives and clarifications given in the clarification presentation.</p> <p>3. The signature on the duly completed and signed Form A1 shall be considered proof that the Tenderer read or viewed the whole presentation and clearly understood all directives and clarifications given in the presentation.</p>
4.8	Request clarifications at least 7 (seven) working days before the closing date.
4.9	No insurance is provided by the Employer.
4.10	Tenderers are required to state the rates and currencies in Rand.
4.12	<p>1. Alternative offers are generally not acceptable due to possible manipulation of the tender process and resulting complexity of the evaluation. Therefore, the submission of alternative tenders is strongly discouraged.</p> <p>2. The submission of alternative type of Key Persons will be declared non-responsive, even if submitted with an alternative financial offer.</p> <p>3. However, a Tenderer wishing to submit an alternative offer shall first apply to the Employer with full details of the principles of the alternative for confirmation that the Employer's standards and requirements are not compromised or reduced. Such confirmation must have been provided by the Employer in writing at least 5 (five) working days before the date of tender closing, or as extended by an Addendum sent to all Tenderers. The application shall not be submitted later than 7 (seven) working days before the date of tender closing given in Tender Data Clause 4.15.</p>
4.13.1	If a Tenderer, including Key Persons, a Joint Venture partner or a Targeted Enterprise, submits or participates in more than one tender for the same project, then all such tenders shall be disqualified.
4.13.1	The returnable documents shall be electronically completed in their entirety and submitted on the issued software or fully compatible format, unless otherwise specified.
4.13.1	Submit the tender offer electronically on Flash Drive and printed and bound hard copy in the relevant MS Word and MS Excel format as issued and not in .pdf format, except where so specified.
4.13.4	The Tenderer is required to submit all certificates as listed in the List of Returnable Schedules as scanned copies, in .pdf format, on the flash drive and printed and bound hard copy.
4.13.5	Wherever reference is made in the tender documentation for Non-financial Proposal it shall also mean Technical Proposal.

4.13.5	<p><i>A two-envelope procedure will apply as follows:</i></p> <p><i>A folder is provided marked “TECHNICAL PROPOSAL”</i></p> <p><i>Ensure that all returnable schedules listed in T2.1 List of Returnable Schedules for inclusion in the Technical Proposal and listed in the Technical Proposal folder are electronically completed on a Flash Drive (all A-Forms on the provided MS Word file and all B-Forms on the provided MS Excel file). Wherever it is a requirement to attach certificates or letters to the returnable schedules, these should be scanned in, on the Flash Drive in .pdf format. Contents of Flash Drive shall be printed and bound in hard copy.</i></p> <p><i>The completed Flash Drive, the printed and bound hard copy should be marked with the tenderer’s company name, the project number and description and marked “TECHNICAL PROPOSAL”.</i></p> <p><i>Scan and insert a valid B-BBEE certificate.</i></p> <p><i>Scan and insert a copy of the completed Form C2.4: Key Persons for this Project and Summary of Tendered fee (excl. provisional & prime cost sums).</i></p> <p><i>Electronically sign the declaration in the folder.</i></p> <p><i>Insert the electronically completed Flash Drive, the printed and bound hard copy in an envelope marked “TECHNICAL PROPOSAL”.</i></p> <p><i>2. A folder is provided marked “FINANCIAL PROPOSAL”</i></p> <p><i>a. Ensure that all returnable schedules listed in T2.1 List of Returnable Schedules for inclusion in the Financial Proposal and listed in the Financial Proposal folder are electronically completed on a Flash Drive (Contract Data and Pricing Schedule). Wherever it is a requirement to attach letters or certificates to the returnable schedules, these should be scanned in, on the CD/flash drive in .pdf format. Contents of Flash Drive shall be printed and bound in hard copy.</i></p> <p><i>The completed Flash Drive, the printed and bound hard copy should be marked with the tenderer’s company name, the project number and description and marked “FINANCIAL PROPOSAL”.</i></p> <p><i>b. Electronically sign the declaration in the folder.</i></p> <p><i>c. Complete and electronically sign the Form of Offer and scan into the folder. A draft copy of this form is provided.</i></p> <p><i>d. Scan and insert a copy of the Summary of Pricing Schedule into the folder.</i></p> <p><i>e. Insert the electronically completed Flash Drive and the printed and bound hard copy in an envelope marked “FINANCIAL PROPOSAL – DO NOT OPEN WITH TECHNICAL PROPOSAL”.</i></p> <p><i>3. Each envelope shall state on the outside the Employer’s address, contract number and title as well as the Tenderer’s name, authorised representative’s name, postal address and contact telephone numbers.</i></p> <p><i>4. Seal both envelopes in an outer envelope with the words “TENDER” clearly marked and bearing the Employer’s name, contract number and description as well as the Tenderer’s authorised representative’s name, postal address and contact details.</i></p> <p><i>If a tenderer submits:</i></p> <p><i>One envelope with one document or one Flash Drive (financial and technical); or</i></p> <p><i>Incorrectly labelled envelopes where the Financial Offer is labelled Technical and the Technical Offer is labelled financial.</i></p> <p><i>The tender will be declared non-responsive.</i></p> <p><i>a) .</i></p>
4.14	<p><i>1. Provided that the omission is not a material omission, the Employer reserves the right to condone the omission and may waive any nonconformities in the tender.</i></p>

	2. Provided that the omission is not a material omission, the Employer reserves the right to condone the omission and may request the tenderer to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the tender related to documentation requirements.
4.15	<p>1. The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p>The Regional Manager (Northern Region)</p> <p>The South African National Roads Agency SOC Ltd</p> <p>Location of tender box Reception Area - The South African National Roads Agency SOC Ltd</p> <p>Physical address 38 Ida Street, Menlo Park, Pretoria, 0081</p> <p>Identification details Place the signed original tender offer in a package marked: TENDER : C.002-025-2018/1S: CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20</p> <p>2. Tenders must be submitted during office hours (09:00 to 16:00) Monday to Friday at the Employer's address.</p> <p>3. It is in the Tenderer's interest to ensure that the delivery of the tender offer is recorded in the Employer's Tenders Received Register.</p>
4.15	The closing time for submission of tender offers is 11:00 on Friday, 9 December 2022.
4.16.1	The tender offer validity period is 180 days.
4.16.2	<p>1. Where a Tenderer, at any time after the opening of its tender offer, but prior to entering into a contract based on his tender offer:</p> <p>a) withdraws his tender;</p> <p>b) gives notice of his inability to execute the contract in terms of his tender; or</p> <p>c) fails to comply with a request made in terms of 4.17, 4.18 or 5.9 or 5.13;</p> <p>such Tenderer shall be barred from tendering on any of the Employer's tenders for a period to be determined by the Employer, but not less than 6 (six) months from a date determined by the Employer.</p> <p>2. This sanction also applies to tenders under evaluation and not yet awarded.</p> <p>3. This sanction does not apply to tenders under evaluation where a request for extension for the validity period was not accepted by the Tenderer.</p> <p>4. The Employer may fully or partly exempt a Tenderer from the provisions of these conditions if in his opinion that the circumstances justify the exemption.</p>

4.17	Any clarification requested under this clause must be provided within one (1) working day of date of request.
4.18	Any additional information requested under this clause must be provided within 5 (five) working days of date of request.
5.1	The Employer shall respond to clarifications received up to 7 (seven) working days before tender closing date.
5.2	The employer shall issue addenda until ten (10) working days before tender closing date.
5.4	The time for opening of the tender offers via live streaming shall be 11:00 on Friday, 2 December 2022.
5.5	The minimum percentages of evaluation points for quality is not less than 80%
5.7	<ol style="list-style-type: none"> 1. Prior to disqualification, the Employer shall inform the Tenderer and give the Tenderer an opportunity to make representations within 14 (fourteen) days as to why the tender submitted should not be disqualified and as to why the Tenderer should not be restricted by the National Treasury from conducting any business with any Organ of State for a period not exceeding 10 (ten) years. 2. In the event of disqualification, the Employer may, at its sole discretion, claim damages from the Tenderer and impose a specified period during which tender offers will not be accepted from the offending Tenderer and the Employer shall inform the National Treasury in writing. 3. Amongst reasons for tender cancellation, SANRAL will cancel the tender should all tenders be non-responsive in terms of Clause 3.5 and no negotiations will be conducted.
5.8	<ol style="list-style-type: none"> 1. A Substantially responsive tender is a tender in which all the material information and documentation submitted at close of tender contains non-material and non-conformities to the bid specifications but are not in no way whatsoever, related to price. The correction of any such documentation or information, or the condonement for the non-inclusion of any such document or information may not in no way whatsoever, be prejudicial towards the offer and claimed preference of any responsive bid/tender or be construed to be giving an unfair advantage to any bid/tender. 2. A responsive tender is also one that conforms to all the terms, conditions, and scope of work of the tender documents, without material omissions. The test for a material omission is the same as the test for a material deviation or qualification.
5.9	<ol style="list-style-type: none"> 1. Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in words and the amounts in figures, the amount appearing in the Summary to the Pricing Schedule shall govern. 2. Check responsive tender offers for: <ol style="list-style-type: none"> a) the gross misplacement of the decimal point in any unit rate; b) omissions made in completing the Pricing Schedule or Bills of Quantities; or c) arithmetic errors in: <ol style="list-style-type: none"> i) line item totals resulting from the product of a unit rate and a quantity in Bills of Quantities or Schedules of Prices; or ii) the summation of the prices; d) imbalanced unit rates.

	<p>3. Notify shortlisted Tenderers of all errors, omissions or imbalanced rates that are identified in their tender offers.</p> <p>4. Where the Tenderer elects to confirm the errors, omissions or re-balancing of imbalanced rates the tender offer shall be corrected as follows:</p> <p>a) if Bills of Quantities or Pricing Schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the unit rate shall govern and the line item total shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total quoted and the unit rate shall be corrected.</p> <p>b) Where there is an error in the total of the prices either due to other corrections required by this checking process or in the Tenderer's addition of prices, the total of the prices shall be corrected.</p> <p>c) Where the unit rates are imbalanced, adjust such rates by increasing or decreasing them and selected others while retaining the total of the prices derived after any other corrections made under (a) and (b) above.</p> <p>5. Where there is an omission of a line item, no correction is can be made and the offer may be declared non-responsive.</p> <p>6. Declare as non-responsive and reject any offer from a Tenderer who elects not to accept the corrections proposed and subject the Tenderer to the sanction under 4.16.2.</p> <p>7. The Tenderer is required to submit balanced unit rates for Rate Only items in the Pricing Schedule. The rates submitted for these items will be considered in the evaluation of tenders.</p>
5.11.1	<p>1. The procedure for the evaluation of responsive tenders is Method 3.</p> <p>2. If 2 (two) or more Tenderers score an equal total number of points, the contract must be awarded to the Tenderer that scored the highest points for preference.</p> <p>3. If functionality is part of the evaluation process and 2 (two) or more Tenderers score equal total points and equal preference points, the contract must be awarded to the Tenderer that scored the highest points for functionality.</p> <p>4. If 2 (two) or more Tenderers score equal total points in all respects, the award must be decided by the drawing of lots.</p>
5.11.7	<p>1. The value of W_1 is:</p> <p>a) 90 where the financial value, inclusive of VAT, of the lowest responsive tender offer received has a value more than R50 000 000.00; or</p> <p>b) 80 where the financial value, inclusive of VAT, of the lowest responsive tender offer has a value that equals or is less than R50 000 000.00.</p> <p>2. The value of A will be calculated utilizing the following formula:</p> $A = (1 - (P - P_m) / P_m)$ <p>Where:</p> <p>P is the comparative offer of the tender offer under consideration; and</p> <p>P_m is the comparative offer of the most favourable comparative offer.</p>

	3. If the calculated value is negative, the allocated score shall be 0 (zero).															
5.11.8	<div>1. Up to 100 minus W_1 tender evaluation points will be awarded to Tenderers who submit responsive tenders and who are found to be eligible for the preference claimed. Points are based on a Tenderer's scorecard measured in terms of the Broad-Based Black Economic Empowerment Act (Act 53 of 2003 as amended in Act 46 of 2013) and the Regulations (2017) to the Preferential Procurement Policy Framework Act (Act 5 of 2000).</div> <div>2. Points awarded will be according to a Tenderer's B-BBEE status level of contributor and summarised in the table below:</div> <table><tr><th>B-BBEE Status Level of Contributor</th><th>Number of Points for Financial value up to and including R50 000 000.00</th><th>Number of Points for Financial value above R50 000 000.00</th></tr><tr><td>1</td><td>20</td><td>10</td></tr><tr><td>2</td><td>18</td><td>9</td></tr><tr><td>3</td><td>14</td><td>6</td></tr><tr><td>4</td><td>12</td><td>5</td></tr></table> <div>3. Eligibility for preference points is subject to the following conditions:</div> <div><div>i) A tenderers' scorecard shall be a B-BBEE Verification Certificate issued in accordance with:<div><div>- the amended Construction Sector Codes published in Notice 931 of 2017 of Government Gazette No 41287 on 1 December 2017 by the Department of Trade and Industry.</div><div>- In the event that the Measured Entity operates in more than one sector or a sub-sector (e.g. Contractor or BEP) the scorecard for the sector or sub-sector in which the majority of its core activities (measured in terms of annual revenue) are lo-cated will be acceptable. The tenderer must comply with the annual revenue thresholds for EME or QSE or Generic in accordance with the amended Construction Sector Codes. published in Notice 931 of Government Gazette No 41287 on 1 December 2017 by the Department of Trade and Industry.</div></div></div><div>ii) The scorecard shall be submitted as a certificate attached to Returnable Schedule Form D1; and</div><div>iii) The certificate shall:<div><div>(i) Be valid at the closing date; and</div><div>(ii) Have been issued by a verification agency accredited by the South African National Accreditation System (SANAS); or</div><div>(iii) Be in the form of a sworn affidavit (accompanied by financial statement or Management Accounts on the latest financial year) in the case of an Exempted Micro Enterprise (EME) with a total annual revenue of less than R1.8 million, if issued in accordance with the amended Construction Sector Codes published in Notice 931 of Government Gazette No 41287 on 1 December 2017 by the Department of Trade and Industry; and</div><div>(iv) Have a date of issue less than 12 (twelve) months prior to the tender closing</div></div></div></div>	B-BBEE Status Level of Contributor	Number of Points for Financial value up to and including R50 000 000.00	Number of Points for Financial value above R50 000 000.00	1	20	10	2	18	9	3	14	6	4	12	5
B-BBEE Status Level of Contributor	Number of Points for Financial value up to and including R50 000 000.00	Number of Points for Financial value above R50 000 000.00														
1	20	10														
2	18	9														
3	14	6														
4	12	5														

	<p>date (see Tender Data 4.15); and</p> <p>iv) Compliance with any other information requested to be attached to Returnable Schedule Form D1; and</p> <p>v) In the event of an un-incorporated Joint Venture (JV), a valid project specific consolidated B-BBEE Verification Certificate in the name of the JV shall be submitted; and</p> <p>vi) If the tender documents indicate that the tenderer intends sub-contracting more than 25% of the value of the contract to any other person not qualifying for at least the status level that the tenderer qualifies for, 0 (zero) points for preference will be awarded, unless the intended sub-contractor is an EME that has the capability to execute the sub-contract.</p> <p>e)</p>												
5.11.9	<p>1. The quality criteria and maximum score in respect of each of the criteria are as follows:</p> <table> <tr> <th>Description of Quality Criteria</th><th>Maximum Tender Evaluation Points</th></tr> <tr> <td>Technical experience in comparable projects</td><td>45</td></tr> <tr> <td>Managerial ability appropriate to the size and nature of the work</td><td>30</td></tr> <tr> <td>Quality assurance systems which ensure conformance to Employer's stated requirements</td><td>10</td></tr> <tr> <td>Past performance on reference projects</td><td>15</td></tr> <tr> <td>Total evaluation points for quality (M_s).</td><td>100</td></tr> </table> <p>2. The minimum number of evaluation points for quality is not less than 80. An explanation of the evaluation methodology is provided as part of Returnable Schedule Form B2.</p> <p>3. Key Persons</p> <p>a) As part of the quality criteria as specified above, Key Persons shall be used to calculate the technical experience and managerial ability score.</p> <p>b) The Tenderer may propose the same candidate for more than 1 (one) position simultaneously. If this is proposed and the evidence of the candidates' suitability is different for each position in the team, separate Returnable Schedules for each position must be completed.</p> <p>c) Each proposed candidate shall complete the relevant B1 and B2 forms included in the Returnable Schedules and the following limitations must be noted:</p> <p>i) The Project Leader (PL) will be limited to participate in a maximum number of 6 (six) contracts in active design phase with the Employer, which will be complete when the design development report is accepted.</p> <p>ii) The Contract engineer (CE) and the Assistant Contract Engineer (ACE), if applicable, will be limited to participate in a maximum number of 6 (six) contracts in the design phase with the Employer.</p> <p>iii) When a proposed candidate for any position is not in the permanent employ of the Tenderer, but a contract person, this must be indicated on Form B2 and a signed letter of consent from the candidate must be submitted with the relevant B-Forms. Where a proposed candidate for any position is a permanent staff member of the Tenderer - this must be indicated on form B2 and a signed letter of confirmation must be submitted with the relevant B-forms.</p> <p>d) The following Key Person(s) shall form part of the quality criteria:</p>	Description of Quality Criteria	Maximum Tender Evaluation Points	Technical experience in comparable projects	45	Managerial ability appropriate to the size and nature of the work	30	Quality assurance systems which ensure conformance to Employer's stated requirements	10	Past performance on reference projects	15	Total evaluation points for quality (M _s).	100
Description of Quality Criteria	Maximum Tender Evaluation Points												
Technical experience in comparable projects	45												
Managerial ability appropriate to the size and nature of the work	30												
Quality assurance systems which ensure conformance to Employer's stated requirements	10												
Past performance on reference projects	15												
Total evaluation points for quality (M _s).	100												

	<ul style="list-style-type: none"> i) Contract Engineer ii) Design Specialist: Pavement and Materials
5.13	<p>1. The conditions stated in Clauses 5.13(a) to (f) of the Conditions of Tender as well as the following additional Clauses 5.13(g) to (k) shall be applied as objective criteria in terms of Section 2(1)(f) of the Preferential Procurement Policy Framework Act, 2000 and as compelling and justifiable reasons in terms of Conditions of Tender, Clause 5.11:</p> <ul style="list-style-type: none"> g) The Tenderer or any of its Directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; and h) the Tenderer has not abused the Employer's supply chain management system; and i) the Tenderer has not failed to perform on any previous contract and has not been given a written notice to this effect. j) the Tenderer is tax compliant. The recommended Tenderer who becomes non-compliant, prior to award, shall be notified and must become compliant within 7 working days of the date of being notified. A recommended Tenderer who remains non-compliant after the 7 working days of being notified, shall be declared non-responsive. k) the Tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer. The licensed compensation insurer shall be approved by Department of Labour in terms of Section 80 of the Compensation for Injury and Disease Act, 1993 (Act No. 130 of 1993). <p>2. In addition to the requirements under paragraph (b) of the Conditions of Tender, if a risk assessment is performed as part of the tender evaluation, the risk assessment report will be used to evaluate the Tenderer's ability to perform the contract as stated in sub-clause (b).</p> <p>3. The risk assessment will evaluate the overall risk associated with the tender and will take into consideration the following:</p> <ul style="list-style-type: none"> a) Assessment of financial statements to assess the financial position of the Tenderer and its ability to obtain the necessary guarantees or insurances; b) Evaluation of managerial and technical ability and available resources in relation to the proposed tender; c) Integrity risk evaluation; d) Operations, activities, locations and key customers; e) Reference checks from previous clients; and f) Risk rating (i.e. high risk, medium to high risk, medium risk or low risk) of the Tenderer.
5.16	SANRAL will notify unsuccessful tenderers when the tender process has been concluded. Any unsuccessful tenderer may request a debriefing in writing as specified in clause 5.19.
5.17	The Employer will provide 1 (one) signed contract document to the Service Provider.
5.19	All requests shall be in writing.
ADDITIONAL CONDITIONS OF TENDER CLAUSES:	
CLAUSE	DATA

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NUMBER	
3.7	Jurisdiction Unless stated otherwise in the Tender Data, each Tenderer and the Employer undertake to accept the jurisdiction of the law courts of the Republic of South Africa.

PART T2: RETURNABLE SCHEDULES

T2.1 LIST OF RETURNABLE SCHEDULES

Notes to Tenderers:

1. Returnable schedules have been based on the CIDB Standard for Uniformity in Construction Procurement and incorporate National Treasury requirements within them. Returnable Schedules are separated into the following categories:
 - a) Forms, certificates and schedules for completion by the Tenderer for use in the quantitative and qualitative evaluation of the tender (Forms A, B, C and D).
 - b) A list of other returnable documents for completion by the Tenderer and which will subsequently be incorporated into the Contract (Section C1).
2. Failure to fully complete the relevant returnable documents shall render such a tender offer non-responsive.
3. Tenderers shall note that their signatures appended to each returnable form represents a declaration that they vouch for the accuracy and correctness of the information provided, including the information provided by candidates proposed for the specified key positions.
4. Notwithstanding any check or audit conducted by or on behalf of the Employer, the information provided in the returnable documents is accepted in good faith and as justification for entering into a contract with a Tenderer. If subsequently any information is found to be incorrect such discovery shall be taken as wilful misrepresentation by that Tenderer to induce the Contract. In such event the Employer has the discretionary right under Contract Condition 8.4 to terminate the Contract.

T2.1 LIST OF RETURNABLE SCHEDULES**Notes to Tenderers:**

1. This form has been created as an **aid** to ensure a Tenderer's compliance with the completion of the Returnable Forms and Schedules and subsequent placement in the correct envelope.
2. The electronic format for the submissions of the relevant forms is indicated in the schedule below.

FORM OR SBD NO	ELECTRONIC FORMAT	FORM DESCRIPTION	INITIAL IF COMPLETED	CD / FLASH DRIVE
A1:	PDF	CERTIFICATE OF CONFIRMATION THAT THE TENDERER READ THE PRESENTATION	*1	TECHNICAL PROPOSAL (1 ST ENVELOPE)
A1.1	PDF	CERTIFICATE OF INTENSION TO SUBMIT A TENDER	*1	
A2.1:	PDF	CERTIFICATE OF AUTHORITY FOR SIGNATORY	*1	
A2.2:	PDF	DECLARATION OF TENDERER'S STATUS OF ANY DEBT OUTSTANDING TO SANRAL	*1 & *2	
A2.3:	PDF	CERTIFICATE OF SINGLE TENDER SUBMISSION	*1 & *2	
A2.4:	PDF	CERTIFICATE OF FRONTING PRACTICES	*1 & *2 & *3	
A2.5	PDF	DECLARATION FORM – MANAGEMENT OF DOMESTIC PROMINENT INFLUENTIAL PERSONS, FOREIGN PROMINENT PUBLIC OFFICIALS AND FOREIGN INFLUENTIAL NATIONALS	*1 & *2	
A2.6	PDF	CERTIFICATE OF PERMISSION TO CONDUCT RISK ASSESSMENT	*1 & *2	
A2.7	PDF	DECLARATION OF INDEPENDENT TECHNOLOGY-BASED INTELLECTUAL SERVICE PROVIDER	*1 & *2	
A3.1/SBD4	PDF	COMPULSORY DECLARATION	*1 & *2	
A3.2/SBD9	PDF	CERTIFICATE OF INDEPENDENT TENDER	*1 & *2	
A3.3/SBD8	PDF	DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES	*1 & *2	
A3.4	PDF	REGISTRATION ON NATIONAL TREASURY CENTRAL SUPPLIER DATABASE	*1 & *2	
A4:	PDF	SCHEDULE OF DEVIATIONS OR QUALIFICATIONS BY TENDER	*1 & *2	
A5:	PDF	SCHEDULE OF ADDENDA TO TENDER DOCUMENTS	*1	
A6/SBD2	PDF	CERTIFICATES OF TAX COMPLIANCE	*1	
A7:	PDF	CERTIFICATE OF INSURANCE COVER	*1	
A8:	PDF	TENDERER'S REGISTERED FINANCIAL SERVICE PROVIDER LETTER AND BANK DETAILS	*1	

A9:	PDF	DECLARATION OF TENDERER'S LITIGATION HISTORY	*1	
A10:	PDF	SCHEDULE OF CURRENT COMMITMENTS	*1	
A11:	PDF	POSSIBLE COMMITMENTS OF KEY PERSONS	*1	
A12:	PDF	CERTIFICATE OF COMPLIANCE WITH OCCUPATION HEALTH AND SAFETY ACT, 1993 AND CONSTRUCTION REGULATIONS, 2014 AS WELL AS COID ACT, 1993	*1	
A13:	PDF	FORM SBD1 – INVITATION TO BID AND TERMS AND CONDITIONS FOR BIDDING	*1 & *2	
B1.1:	MS EXCEL	KEY PERSONS' TECHNICAL AND MANAGERIAL RECORD	*1	
B1.2:	MS EXCEL	ALTERNATE KEY PERSONS' TECHNICAL AND MANAGERIAL RECORD	*1	
B2.1:	MS EXCEL	KEY PERSONS' QUALIFICATION AND REGISTRATION RECORD	*1	
B2.2:	MS EXCEL	ALTERNATE KEY PERSONS' QUALIFICATION AND REGISTRATION RECORD	*1	
B3:	MS EXCEL	TENDERER'S PROJECT STRUCTURE	*1	
B4:	PDF	CERTIFICATE OF QUALITY SYSTEMS	*1	
B5:	PDF	PRELIMINARY PROGRAMME (INCLUDING UNDERSTANDING AND APPROACH)	*1	
B6:	PDF	PAST PERFORMANCE PROJECT REPORTS	*1	
B7	PDF	TARGETED ENTERPRISE OR SUB-CONTRACTOR DETAILS AND DECLARATION	*1 & *2	
D1/SBD6.1		TENDERER'S B-BBEE VERIFICATION CERTIFICATE	*1 & *2	

FORM OR SBD NO	ELECTRONIC FORMAT	FORM DESCRIPTION	INITIAL IF COMPLETED	CD / FLASH DRIVE
C1.1.1/SBD7	PDF	FORM OF OFFER	*2	FINANCIAL PROPOSAL (2 ND ENVELOPE)
C1.2.3	PDF	CONTRACT DATA – INFORMATION PROVIDED BY THE TENDERER	*2	
C2.2/SBD3	MS EXCEL	PRICING SCHEDULE	*1 & *2	
C2.3	MS EXCEL	SUMMARY OF PRICING SCHEDULE	*1 & *2	

Notes:

*1 - Schedules and/or documents required for tender evaluation purposes.

*2 - Schedules and/or documents that will be incorporated into the Contract.

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FORM A1: CERTIFICATE CONFIRMING THAT THE TENDERER READ THE PRESENTATION

Notes to Tenderers:

- 1. Scan a copy of completed and signed certificate on printed and bound hard copy and flash drive.**

This is to certify that I,
(insert name and surname)

Representative of
(insert name and surname)

of (address)

.....

.....

telephone number

fax number

e-mail

read the clarification presentation.

TENDERER'S REPRESENTATIVE (Signature)

FORM A1.1: CERTIFICATE OF INTENTION TO SUBMIT A TENDER

CONTRACT SANRAL C.002-025-2018/1S

Notes to Tenderer:

1. The duly completed Certificate of Intention to Submit a Tender **must** be submitted by whoever intends to tender for this particular tender within seven (7) days from the date the tender is advertised. **Failure to submit the Certificate of Intention to Submit a Tender within the required period may render the tenderer non-responsive and SANRAL does not accept responsibility for any communication not received by the tenderer timeously.**
2. Late notification of intention to tender by a prospective tenderer **will not** necessarily result in the tender closing date being extended.
3. Should you intend to submit a tender for this particular tender please sign the certificate, scan and email the completed document to the email address indicated in T1.1 of this tender document.
4. The Employer shall send all correspondence, including Addenda, only to the Tenderer's email address as provided herein.

This is to certify that I,

.....

representative of (insert name of tenderer)

of (address)

.....

.....

telephone number

fax number

e-mail

intends to submit a tender in response to the tender notice and invitation for tender this contract.

TENDERER'S REPRESENTATIVE Date
(Signature)

FORM A2.1: CERTIFICATE OF AUTHORITY FOR SIGNATORY

CONTRACT SANRAL C.002-025-2018/1S

Notes to Tenderers:

1. The signatory for the Tenderer shall confirm his/her authority thereto by attaching on a tendering company's letterhead a duly signed and dated copy of the relevant resolution of the Board of Directors or Partners. **Scan a copy of the resolution on printed and bound hard copy and flash drive.**
2. If the Tenderer is a Joint Venture (JV), a certificate is required from each member of the JV clearly setting out:
 - a) authority for signatory,
 - b) undertaking to formally enter into a JV contract should an award be made to the JV,
 - c) name of designated lead member of the intended JV, as required by Tender Condition 4.13.1.
3. The resolution below is given as an example of an acceptable format for authorisation, but submission of this page with the example completed shall not be accepted as authorisation of the Tenderer's signatory.

By resolution of the Board of Directors/Partners passed at a meeting held on

Mr/Ms whose signature appears below, has been duly authorised to sign all documents in connection with the tender for Contract SANRAL C.002-025-2018/1S - *CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT AND SMALL CONTRACTOR TRAINING AND DEVELOPMENT ON ACCESS ROADS IN AND NEAR KWAGGAFONTEIN B .)* and any contract which may arise therefrom on behalf of ... (*name of Tenderer*).

SIGNED ON BEHALF OF THE COMPANY:

IN HIS/HER CAPACITY AS:

DATE:

SIGNATURE OF SIGNATORY:

WITNESSES:

SIGNATURE

SIGNATURE

NAME (print)

NAME (print)

FORM A2.2: DECLARATION OF TENDERER'S STATUS OF DEBT OUTSTANDING TO SANRAL

Notes to Tenderers:

1. The signatory for the Tenderer (as per Form A2.1) shall complete and sign this form declaring the status of (any) debt outstanding to SANRAL.
2. If the Tenderer is a Joint Venture (JV), a declaration is required from each member of the JV.

I, the undersigned, declare that:

- a) the Tenderer or any of its Directors or Members do not have any debt outstanding to SANRAL, other than what is listed below (please provide details):

Please provide the details:

.....
.....
.....
.....

- b) the Tenderer and/or any of its Directors or Members freely, voluntarily and without undue duress unconditionally authorises SANRAL to set off any debts agreed to which is due and payable by the Tenderer or any of its Directors or Members in terms of this declaration against any moneys due to the Tenderer or any of its Directors or Members; and
- c) to the best of my knowledge the above information is true and accurate.

Signed and sworn before me at on the day of
..... 20.....

.....
SIGNATURE

The deponent having:

- i) acknowledge that he/she knows and understands the contents hereof;
- ii) confirmed that he/she has no objection to the taking of the prescribed oath;
- iii) considered the prescribed oath as binding upon his/her conscience; and
- iv) complied with the Regulations contained in the Government Gazette Notice R1258 of July 1972 and R1648 of August 1977 having been complied with.

.....
COMMISSIONER OF OATHS

FORM A2.3: CERTIFICATE OF SINGLE TENDER SUBMISSION

Notes to Tenderers:

1. This certificate serves as a declaration by the Tenderer that a single tender was submitted.
2. In the case of a Joint Venture (JV) a Targeted Enterprise or a sub-contracted Key Person(s), a separate certificate is to be completed and submitted by each JV member, Targeted Enterprise or sub-contracted Key Persons(s).

DECLARATION

I, the undersigned, in submitting the accompanying tender on behalf of the Tenderer do hereby make the following statements that I certify to be true and complete in every respect:

1. I have read and understand the notes to, and the contents of, this certificate.
2. I understand that the accompanying tender and any other tender shall be disqualified if I, including a JV, a Targeted Enterprise or a sub-contracted Key Person(s), participate in more than 1 (one) tender.

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A2.4: CERTIFICATE OF FRONTING PRACTICES

1. Fronting Practices

a) Window-dressing:

This includes cases in which black people are appointed or introduced to an enterprise based on tokenism and may be:

- i) discouraged or inhibited from substantially participating in the core activities of an enterprise; and
- ii) discouraged or inhibited from substantially participating in the stated areas and/or levels of their participation.

b) Benefit Diversion:

This includes initiatives implemented where the economic benefits received as a result of the B-BBEE Status of an enterprise do not flow to black people in the ratio as specified in the relevant legal documentation.

c) Opportunistic Intermediaries:

This includes enterprises that have concluded agreements with other enterprises with a view to leveraging the opportunistic intermediary's favourable B-BBEE status in circumstances where the agreement involves:

- i) significant limitations or restrictions upon the identity of the opportunistic intermediary's suppliers, service providers, clients or customers;
- ii) the maintenance of their business operations in a context reasonably considered improbable having regard to resources; and
- iii) terms and conditions that are not negotiated at arms-length on a fair and reasonable basis.

2. Responsibility to Report Fronting

To effectively deal with the scourge of fronting, verification agencies, and/or procurement officers and relevant decision makers are encouraged to obtain a signed declaration from the clients or entities that they verify or provide business opportunities to, which states that the client or entity understands and accepts that the verification agency, procurement officer or relevant decision maker may report fronting practices to **the dti**. Intentional misrepresentation by measured entities may constitute fraudulent practices, public officials and verification agencies are to report such cases to **the dti**.

3. Fronting Indicators

The situations listed in the table below are indicators of fronting;

a)	The black people identified by an enterprise as its shareholders, executives or management are unaware or uncertain of their role within an enterprise;
b)	The black people identified by an enterprise as its shareholders, executives or management have roles of responsibility that differ significantly from those of their non-black peers;
c)	The black people who serve in executive or management positions in an enterprise are paid significantly lower than the market norm, unless all executives or management of an enterprise are paid at a similar level;
d)	There is no significant indication of active participation by black people identified as top management at strategic decision-making level;
e)	An enterprise only conducts peripheral functions and does not perform the core functions reasonably expected of other, similar, enterprises;

f)	An enterprise relies on a third-party to conduct most core functions normally conducted by enterprises similar to it;
g)	An enterprise cannot operate independently without a third-party, because of contractual obligations or the lack of technical or operational competence;
h)	The enterprise displays evidence of circumvention or attempted circumvention;
i)	An enterprise buys goods or services at a significantly different rate than the market from a related person or shareholder;
j)	An enterprise obtains loans, not linked to the good faith share purchases or enterprise development initiatives, from a related person at an excessive rate; and
k)	An enterprise shares all premises and infrastructure with a related person, or with a shareholder with no B-BBEE status or a third-party operating in the same industry where the cost of such premises and infrastructure is disproportionate to market-related costs.

DECLARATION

I, the undersigned, in submitting the accompanying tender on behalf of the Tenderer do hereby make the following statements that I certify to be true and complete in every respect:

1. I have read and understand the contents of this certificate.
2. I accept that the Employer may report fronting practices to the Department of Trade and Industry and the B-BBEE Commissioner.
3. I accept that intentional misrepresentation by measured entities may constitute fraudulent practices that shall be reported to the Department of Trade and Industry and the B-BBEE Commissioner.

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A2.5: DECLARATION FORM – MANAGEMENT OF PROMINENT INFLUENTIAL PERSONS

Notes to Tenderers:

1. In line with a policy on the management of Prominent Influential Persons (PIP's), the purpose of this declaration form is to ensure maintenance and monitoring of the business relationships with prominent, influential stakeholders who have domestic and/or foreign influence as far as the procurement under the management of the Employer is concerned. This is done to mitigate the Employer's perceived association, reputational, operational or legal risk, as it strives to foster and maintain fair and transparent business relations. (This policy is available on the Employer's website: www.nra.co.za).
2. It is compulsory that all prospective and existing Tenderers conducting business with the Employer, who potentially meet the definition of DPIP's, FPPO's or FIN's, complete this form by supplying credible information as required and submit together with their tender document.
3. Tenderers are required at the tender stage to declare any DPIP's, FPPO's or FIN's involved in their tenders, as part of their submission.
4. Further, that Tenderers shall at the tender stage furnish the Employer of all information relating to namely, shareholders names, identity numbers and share certificates of the individual and/or transaction concerned using the form below, for verification purposes, including where applicable, confirmation as it relates to:
 - a) Knowledge of any offence within the meaning of Chapter 2, Section 12 and 13 of Prevention and Combating of Corrupt Practices Act No 4 of 2006; and/or
 - b) Knowledge of any offence within the meaning of Chapter 3 of Prevention of Organised Crime Act No 121 of 1998 as it relates to any of the shareholders, directors, owners and/or individual link to the Tenderer.
5. Tenderers undertake that should it be discovered that the information provided in the table below is fraudulently or negligently misrepresented, then Chapter 9, Section 214 and 216 of Companies Act No 17 of 2008 shall apply to shareholders, directors, owners and/or individual link to the Tenderer.
6. Should the Tenderer fail to declare or supply the Employer with credible information in the prescribed form, the tender may be rendered invalid.
7. Should the Employer, in the process of conducting verification and investigation of information supplied by the Tenderer find out that the information poses a reputational risk, the tender shall be rendered invalid.
8. The following definitions shall apply:
 - a) "Board" means the Board of Directors or the Accounting Authority of the Employer.
 - b) "Business relationship" means the connection formed between the Employer and external stakeholders for commercial purposes.
 - c) "DD" means Due Diligence.
 - d) "Domestic Prominent Influential Person" means an individual who holds an influential position, including in an acting position for a period exceeding 6 (six) months, or has held at any time in the preceding 12 (twelve) months, in the Republic, as defined in the Financial Intelligence Centre Amendment Act No 1 of 2017.
 - e) "DPIP" means a Domestic Prominent Influential Person.
 - f) "Family members and known close associates" means immediate family members and known close associates of a person in a foreign or domestic prominent position, as the case may be, as defined in the Financial Intelligence Centre Amendment Act No 1 of 2017.
 - g) "Foreign Influential National" means an individual who is not a South African citizen or does not have a permanent residence permit issued in terms of the Immigration Act No 13 of 2002, who possesses personal power that induces another person to give consideration or to act on any basis other than the merits of the matter.

- h) "Foreign Prominent Public Official" means (as defined in the Financial Intelligence Centre Amendment Act No 1 of 2017) an individual who holds or has held at any time in the preceding 12 (twelve) months, in any foreign country a prominent public function.
- i) "FPPO" means a Foreign Prominent Public Official.
- j) "Improper influence" means personal power that induces another person to give consideration or to act on any basis other than the merits of the matter.
- k) "The Employer" means the South African National Roads Agency SOC Limited (SANRAL) with registration number 1998/009584/30.
- l) "Senior Management" means the Executive Committee or its individual members.
9. A separate declaration is required from each DPIP, FPPO and FIN. If the Tenderer is a Joint Venture (JV), a separate declaration from each DPIP, FPPO and FIN from each of the JVs, is required.

Prominent Influential Persons (PIP's) Reporting Form

IDENTIFICATION PARTICULARS				
Primary Particulars	First Name	Surname	Middle Name	ID/Passport Number
Country Details	Country of Origin	Citizenship	Current Country of Residence	
STATUS AND BACKGROUND				
Current Occupation	Occupational Title		Status	
			Active	Non-active
Is the potential/business partner (mark with an "X" whichever is applicable):				
a DPIP	a FPPO	a FIN	Family member or Close Associate of a DPIP/FPPO/FIN?	
KNOWN BUSINESS INTERESTS				
No	Name of Entity	Role in Entity	Status	
1			Active	Non-active
2				
3				
4				
5				
6				
7				
8				
9				
10				

[illegible]

Full names:		
Designation:		
Department:		
Head of Department:		
Head of Department's signature:	Date:	
Reporting Person's signature:	Date:	

I, the undersigned, declare
that:

1. the information furnished on this declaration form is true and correct; and
2. I accept that, any action may be taken against me should this declaration prove to be false.

NAME OF TENDERER:

FORM A2.6: CERTIFICATE OF PERMISSION TO CONDUCT RISK ASSESSMENT

Notes to Tenderers:

1. The Tenderer shall complete the declaration below.
2. In the event of a Joint Venture (JV), each member of the JV shall comply with the above requirements.

I, (*insert name*),
the undersigned in my capacity as (*insert position*),
on behalf of (*insert name of company*),
herewith grant consent that SANRAL or any of their appointed Service Providers may conduct a risk
assessment on (*insert name of company*)
to evaluate our ability to perform the contract as stipulated in the Standard Conditions of Tender,
Clause 5.13(b).

In addition, any information in this regard requested by SANRAL or any of their appointed Service Providers, shall be submitted within the timelines of the request.

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A2.7: DECLARATION OF INDEPENDENT TECHNOLOGY-BASED INTELLECTUAL SERVICE PROVIDER

CONTRACT SANRAL C.002-025-2018/1S

Notes to tenderer:

- 1. The signatory for the tenderer (as per Form A2.1) shall complete and sign this form.**
- 2. In the event that the tenderer is a Joint Venture, a declaration is required from each member of the Joint Venture.**
- 3. Failure to declare may result in a non-responsive tender.**

I, the undersigned, declare that the tenderer including the Targeted Enterprise(s) (*note to compiler delete if TEs not applicable to this tender*): :

1. Is a natural person or legal entity which provides independent technology-based intellectual services in the built, human and natural environment to clients for a fee,
2. is not engaging in or is not a subsidiary or holding company of a company that engages in manufacturing or construction;
3. is not in substance owned by the State or a similar public body,
4. is not in substance the design department of a development, manufacturing or construction enterprise.

Signed and sworn before me at on the day of 20.....

.....

SIGNATURE

The deponent having:

1. Acknowledge that he/she knows and understands the contents hereof;
2. Confirmed that he/she has not objection to the taking of the prescribed oath;
3. That he/she considered the prescribed oath as binding upon his/her conscience; and
4. The Regulations contained in the Government Gazette Notice R1258 of July 1972 and R 1648 of August 1977 having been complied with.

FORM A3.1: COMPULSORY DECLARATION (INCORPORATING SBD4)

BIDDER'S DISCLOSURE (SBD4)

Notes to tenderer:

i. Definitions:

a. "State" means:

- any National or Provincial Department, National or Provincial Public Entity or Constitutional Institution within the meaning of the Public Finance Management Act, 1999 (Act No 1 of 1999);
- any Municipality of Municipal Entity;
- Provincial Legislature;
- National Assembly or the National Council of Provinces; or
- Parliament.

b. "Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

ii. In the case of a joint venture (JV), a separate declaration form is to be completed and submitted by each JV member.

iii. If the Form is omitted or blank; or if the tenderer found to have failed to declare conflict or declare false information, The tender will be declared non-responsive and should it be discovered after the award of a contract, contract may be terminated and tenderer will be ultimately restricted from doing business with the State.

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. BIDDER'S DECLARATION

- 2.1. Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state?**
YES/NO
- 2.1.1. If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.**

- 1. the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise**

Full Name	Identity Number	Name of State institution

2.2. Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution?

YES/NO

2.2.1. If so, furnish particulars.....

2.3. Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

YES/NO

2.3.1. If so, furnish particulars:
.....
.....

3. DECLARATION

I, the undersigned, (name)in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1. I have read and I understand the contents of this disclosure;
- 3.2. I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.

² Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract

3.4. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.5. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

3.6. There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

3.7. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....

.....

Signature

Date

...

Position

Name of Bidder

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONTRACT SANRAL C.002-025-2018/1S

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FORM A3.2: CERTIFICATE OF INDEPENDENT TENDER (INCORPORATING SBD9)

Repealed

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

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FORM A3.3: DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (INCORPORATING SBD8)

Repealed

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

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FORM A3.4: REGISTRATION ON NATIONAL TREASURY CENTRAL SUPPLIER DATABASE

Notes to Tenderers:

1. The Tenderer shall provide a printed copy of the Active Supplier Listing on the National Treasury Central Supplier Database (www.treasury.gov.za).
2. Tenderers who are not registered on the Central Supplier Database should attach proof of their application for registration (refer to Tender Data, Clause 4.1.1(b)).
3. In the case of a Joint Venture (JV), a printed copy of the Active Supplier Listing must be provided for each member of the JV.

Name of Service Provider:

Central Supplier Database Supplier Number:

Supplier Commodity:

Delivery Location:

SIGNATURE:

DATE:

NAME:

POSITION:

CONTRACT SANRAL C.002-025-2018/1S

FORM A4: SCHEDULE OF DEVIATIONS OR QUALIFICATIONS BY TENDERER

[illegible]

POSITION:

FORM A5: SCHEDULE OF ADDENDA TO TENDER DOCUMENTS

1. If an addendum containing material amendments is not incorporated by the tenderers in his tender offer. The tender will be declared non-responsive.

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
NO	DATE	TITLE OR DETAILS
1		
2		
3		
4		
5		
6		
7		
8		

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A6: CERTIFICATES OF TAX COMPLIANCE (INCORPORATING SBD2)

Note to Tenderers:

1. The Tenderer shall complete the declaration below.
2. In the event of a Joint Venture (JV) each member of the JV shall comply with the requirement below.

I, (name)

the undersigned in my capacity as (position)

on behalf of (company)

herewith grant consent that SARS may disclose to the South African National Roads Agency SOC Limited (SANRAL) our tax compliance status. Our unique security personal identification number (PIN) is

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A7: CERTIFICATE OF INSURANCE COVER

Notes to Tenderer:

1. Scan certificate of insurance cover on the printed and bound hard copy and flash drive.
2. If the Tenderer is a Joint Venture (JV) or a Consortium the details of the individual members must also be provided.

The Tenderer shall provide the following details of this insurance cover:

- a) Name of Tenderer:
- b) Period of Validity:
- c) Value of Insurance:
- Professional Indemnity (for each case)
Company:
Value:
 - Public Liability
Company:
Value:
 - Third Party Liability
Company:
Value:

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A8: TENDERER'S REGISTERED FINANCIAL SERVICE PROVIDER LETTER AND BANK DETAILS

Notes to Tenderers:

1. The successful Tenderer will be requested to demonstrate its financial capability to execute the contract prior to award at SANRAL's discretion.
2. The Tenderer shall attach to this form a letter (dated less than 3 months prior to the tender closing date) from the bank at which he declares he conducts his account. Tenderers that fails to comply may be declared non-responsive in terms of Tender Condition 5.8.
3. The Tenderer's banking details as they appear below shall be completed.
4. If the Tenderer is a Joint Venture (JV), details of all the members of the JV shall be provided and attached to this form.
5. Scan the relevant letter on the printed and bound hard copy and flash drive.
6. If the Tenderer does not have financial resources, the tender will be declared non-responsive.

The Tenderer shall provide the following:

- a) Name of account holder:
- b) Account number:
- c) Bank name:
- d) Branch number:
- e) Bank and branch contact details:

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A9: DECLARATION OF TENDERER'S LITIGATION HISTORY**Notes to Tenderers:**

1. The Tenderer shall list below details of any litigation with which the Tenderer (including its Directors, Shareholders or other senior members in previous companies) has been involved with any Organ of State or State Department within the last ten years.
2. The details must include the year, the litigating parties, the subject matter of the dispute, the value of any award or estimated award if the litigation is current and in whose favour the award, if any, was made.

CLIENT	OTHER LITIGATING PARTY	DISPUTE	AWARD VALUE	DATE RESOLVED

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A10: SCHEDULE OF CURRENT COMMITMENTS**Notes to Tenderers:**

1. The Tenderer shall list below all projects with which proposed personnel are currently involved.
2. The start date in column 4 of the table below is that date indicated in the tender documents as being the intended start of the duties of the Key Persona (i.e. expected start of design or supervisory duties).
3. If the Tenderer is a Joint Venture (JV), details of all the members of the JV shall be attached to this form.

NAME AND POSITION	PROJECT	CLIENT	START DATE (M/Y)	DURATION (MONTHS)	VALUE OF SERVICE

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A11: POSSIBLE COMMITMENTS OF KEY PERSON(S)

Notes to Tenderers:

1. Key Persons will be limited to participate in a maximum number of 6 (six) concurrent contracts with the Employer.
2. The purpose of this form is for the Tenderer to identify areas of conflict with respect to Key Persons proposed for the project.
3. Failure to identify where areas of conflict occur, or may occur, and which are subsequently discovered by the Employer shall render such offer as non-responsive, rejected and the Tenderer automatically barred from tendering on SANRAL projects for a period of at least 3 (three) months from the date of tender closure.
4. The Tenderer shall list below all projects or tenders for which the proposed Key Persons have been proposed, and for which results of an award are unknown at the date of tender closure of this project.
5. The start date in column 4 of the table below is that date indicated in the tender documents as being the intended start of the duties of the Key Persons (i.e. expected start of design or supervisory duties).
6. Tenderers must submit an alternative candidate for those positions identified as being possible areas of conflict by completing separate Returnable Schedules Forms B1 and B2 for the alternate.
7. The Employer will not request alternative candidates after tender closure and will interpret the lack of any alternative candidate as an indication that the Tenderer accepts that it will be impossible to be awarded this project as well as one of the others listed on this form.
8. The Employer reserves the right to select according to its best interest and not the Tenderers.

NAME AND POSITION	PROJECT	CLIENT OR REGION	START DATE (M/Y)	DURATION (MONTHS)

SIGNATURE:

DATE:

NAME:

POSITION:

FORM A12: CERTIFICATE OF COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 AND CONSTRUCTION REGULATIONS, 2014 AS WELL AS COID ACT, 1993

Notes to Tenderers:

1. Discovery that the Tenderer has failed to make proper disclosure may result in the Employer terminating a contract that flows from this tender on the ground that it has been rendered invalid by the Tenderer's misrepresentation.
2. The Tenderer shall attach to this form evidence that he is registered and in good standing with the Compensation Fund in terms of Section 80 of the Compensation for Injury and Disease Act (COID) (Act 130 of 1993).
3. The Tenderer is required to disclose, by also attaching documentary evidence to this form, all inspections, investigations and their outcomes conducted by the Department of Labour into the conduct of the Tenderer at any time during the 36 (thirty-six) months preceding the date of the tender closure.
4. If the Tenderer is a Joint Venture (JV), all members of the JV shall comply with the above requirements.

SIGNATURE:

DATE:

NAME:

POSITION:

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONTRACT SANRAL C.002-025-2018/1S

CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

FORM A13: FORM SBD1 – INVITATION TO BID AND TERMS AND CONDITIONS FOR BIDDING

PART A: INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED					
BID NUMBER:	CONTRACT SANRAL C.002-025- 2018/1S	CLOSING DATE:	9 December 2022	CLOSING TIME:	11:00
DESCRIPTION	CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT: The South African National Roads Agency SOC Ltd 38 Ida Street, Menlo Park, Pretoria, 0081					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Procurement Office		CONTACT PERSON	Procurement Office	
FACSIMILE NO	(012) 348 0883		FACSIMILE NO	(012) 348 0883	
E-MAIL ADDRESS	procurementNR3@sanral.co.za		E-MAIL ADDRESS	procurementNR3@sanral.co.za	
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELL PHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT <input type="checkbox"/> Yes <input type="checkbox"/> No		
A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE (FOR EMEs AND QSEs) MUST BE SUBMITTED TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE.					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS OR SERVICES OR WORKS	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS OR SERVICES OR WORKS OFFERED?		<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]

OFFERED?			
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS			
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
DOES THE ENTITY HAVE A BRANCH IN THE RSA?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<p>IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.</p>			

PART B: TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:
<p>1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.</p> <p>1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.</p> <p>1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER LEGISLATION OR SPECIAL CONDITIONS OF CONTRACT.</p> <p>1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).</p>
2. TAX COMPLIANCE REQUIREMENTS
<p>2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.</p> <p>2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.</p> <p>2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) OR PIN MAY ALSO BE MADE VIA E-FILING. THROUGH THE SARS WEBSITE, WWW.SARS.GOV.ZA.</p> <p>2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS TOGETHER WITH THE BID.</p> <p>2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS / PIN / CSD NUMBER.</p> <p>2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.</p> <p>2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE.</p>

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:
 (Proof of authority must be submitted, e.g. Company Resolution)

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED
CONTRACT SANRAL C.002-025-2018/1S
CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY
DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL
ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

DATE:

FORM B1.1: CANDIDATE'S TECHNICAL AND MANAGERIAL RECORD**Notes to Tenderer:**

- a) If the Form is omitted or incomplete or proposed candidate does not meet the minimum experience. The tender will be declared non-responsive.

Personal Details of Candidate

Name	Date of Birth	Position in Team

Technical and Managerial Experience of Candidate *(List only the most recent 3 (three) projects that the Tenderer considers relevant to the specified scope of works.)*

Client and Project No.	Project Type	Relevant Experience Started	Relevant Experience Ended	Value	Position Held	Contact Person and Position	Contact No.

Comments

FORM B1.2: ALTERNATE CANDIDATE'S TECHNICAL AND MANAGERIAL RECORD**Notes to Tenderer:**

- a) If the Form is omitted or incomplete or proposed candidate does not meet the minimum experience. The tender will be declared non-responsive.

Personal Details of Alternate Candidate

Name	Date of Birth	Position in team

Technical and Managerial Experience of Alternate Candidate *(List only the most recent 3 (three) projects that the Tenderer considers relevant to the specified scope of works.)*

Client and Project No.	Project Type	Relevant Experience Started	Relevant Experience Ended	Value	Position Held	Contact Person and Position	Contact No.

Comments

FORM B2.1: CANDIDATE'S QUALIFICATION AND REGISTRATION RECORD**Notes to Tenderer:**

- a) If the qualification and registration record are not submitted; or
 b) If the proposed key person does not have appropriate qualification; or
 c) If the proposed key person is not registered.
 d) Attach letter confirming permanent or contract employment / letter of consent.

The tender will be declared non-responsive.

Personal Details of Candidate

Name	Position in Team	Position in Tendering Entity	Employment Status- state "Permanent" or "Contract"

Candidates Registration with Professional Bodies

Professional Registration Body	ECSA	SACPCMP	Highest Engineering Qualification	Institution	Date Graduated
Level of Registration					
Registration Number			Initial Relevant Tertiary Qualification	Institution	Date Graduated
Date of Registration					

Comments

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONTRACT SANRAL C.002-025-2018/1S

CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND
KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

FORM B2.2: ALTERNATE CANDIDATE'S QUALIFICATION AND REGISTRATION RECORD**Notes to Tenderer:**

- a) If the qualification and registration record are not submitted; or
- b) If the proposed key person does not have appropriate qualification; or
- c) If the proposed key person is not registered.
- d) Attach letter confirming permanent or contract employment / letter of consent.

The tender will be declared non-responsive.

Personal Details of Candidate

Name	Position in Team	Position in Tendering Entity	Employment Status- state "Permanent" or "Contract"

Candidates Registration with Professional Bodies

Professional Registration Body	ECSA	SACPCMP	Highest Engineering Qualification	Institution	Date Graduated
Level of Registration					
Registration Number			Initial Relevant Tertiary Qualification	Institution	Date Graduated
Date of Registration					

Comments

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

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CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND
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Explanation of Consultant Tender Evaluation Scoring for Community Development Projects

Notes to Tenderers:

1. These notes do not consider the Tenderer's eligibility, compliance and responsive requirements, but merely explains the scoring methodology that is applied to tenders deemed compliant and responsive.
2. The criterion for scoring is made up as follows:

Evaluation Criteria	Points
Technical Knowledge	45
Management Knowledge	30
Quality System	10
Past Performance	15
TOTAL	100

3. Dependent on the degree of complexity of the type of project and service requirements, the threshold is either a Category 1 or 2 project, which equates to 70% or 80% respectively. The project Category is determined before the tender is let and is indicated in the tender document. Typically, a Community Development Project (CDP) is a Category 1 type project and therefore has a technical criteria threshold of 70%.
4. Technical Knowledge (max 45 points):
 - a) For each Key Person identified, the Tenderer may supply the 3 (three) most recent relevant project experiences to that which the tender is let for. This is done in the form of returnable schedules (see example below).

FORM B1:		POSITION = PL1		MANAGERIAL POSITION		CANDIDATE'S TECHNICAL/MANAGERIAL RECORD			
Personal Details of Candidate									
NAME		DATE OF BIRTH (yyyy/mm/dd)		POSITION IN TEAM		Description			
		Year ▼ Month ▼ Day ▼		▼ Project Leader					
TECHNICAL / MANAGERIAL EXPERIENCE									
(List only the most recent 3 projects that the tenderer considers relevant to the specified scope of works)									
CLIENT & PROJECT NUMBER (Note 2)	CLIENT (coded)	PROJECT TYPE (coded) (Note 3) * Add additional info in Comments box below if required.	RELEVANT KEY PERSONS EXPERIENCE STARTED (yyyy/mm/dd) (Note 4)	RELEVANT KEY PERSONS EXPERIENCE ENDED (yyyy/mm/dd) (Note 4)	VALUE (in millions of Rand) (* ,000,000) (note 5)	POSITION HELD (Note 6)	POSITION HELD (coded)	Contact Person & Position (Note 7)	Contact Number
	Other ▼	NONE ▼	▼ Year ▼ Month ▼ Day ▼	▼ Year ▼ Month ▼ Day ▼			Undefined ▼		
	Other ▼	NONE ▼	▼ Year ▼ Month ▼ Day ▼	▼ Year ▼ Month ▼ Day ▼			Undefined ▼		
	Other ▼	NONE ▼	▼ Year ▼ Month ▼ Day ▼	▼ Year ▼ Month ▼ Day ▼			Undefined ▼		

- b) Three areas of Technical Knowledge are evaluated, i.e.
 - i) Project type relevance (max 15 points);
 - ii) Period relevance (max 15 points); and
 - iii) Position held (max 15 points).

b) Project Type Relevance:

- i) The relevance of the project type is evaluated against a pre-determined Key Person specific matrix. For a comprehensive list of matrixes please refer to the Consultant Technical Submission Spreadsheet.
- ii) The points allocated, out of a maximum 5 (five) from the matrix per project relevancy experience, and 15 (fifteen) points overall for project type relevancy can be scored.
- iii) Below is a list of typical (**example**) Key Persons, with abbreviations, from which a Tenderer may select; and
- iv) A list of typical (**example**) project types, with abbreviations, from which a Tenderer may select; and
- v) A typical (**example**) Key Person experience vs Project Type Relevance matrix.

Typical Key Persons

Abbreviation	Definition
PL	Project Leader
DS	Design Specialist
CE	Contracts Engineer
RE	Resident Engineer
ARE	Assistant Resident Engineer
RM	RRM Route Manager
SMT	Senior Materials Technician
CM	Contracts Manager
SA	Site Agent
MT	Materials Technician

Typical Project Types

Abbreviation	Definitions
RRM	Routine Road Maintenance
MO/MA	Maintenance Operations and Ad hoc Maintenance
MP/MS	Periodic Maintenance and Special Maintenance
DS	Development Strengthening
DI	Development Improvement
DN	Development New Facilities
CD	Community Development
MSS	Maintenance Special Structures
DIS	Development Improvement Structures
DNS	Development New Structures

Typical Key Person Experience vs Project Type Relevance Matrix

Project Type Experience	MO/MA	MP/MS	DS	DI	DN	CD
NONE	0	0	0	0	0	0
MO/MA	5	3	1	1	1	2
MP/MS	5	5	2	2	2	3
DS	5	5	5	3	3	4
DI	5	5	5	5	4	5
DN	5	5	5	5	5	5
CD	4	3	2	2	2	5

c) Period Relevance

- For each project experience listed, a point is allocated for the time lapse between the experience gained and the tender closing date.
- If the experience is within 10 (ten) years of the tender closing a point of 5 (five) is allocated.
- If the experience is beyond 10 (ten) years, but less than 15 (fifteen) years, half points, or 2.5 (two and a half) points are allocated.
- If the experience is longer than 15 (fifteen) years ago, 0 (zero) points are allocated.
- If the experience is less than 6 (six) months, a pro-rata point is allocated to that of the point that would have been achieved as the experience is of a limited duration.
- A maximum of 5 (five) points per project period relevancy experience and 15 (fifteen) points overall for project type relevancy can be scored.

d) Position Experience

- The relevance of the position held during the technical experience against the position that is tendered for is evaluated.
- A maximum score out of 5 (five) is available per project relevancy technical experience and 15 (fifteen) points overall for position held relevancy can be scored.
- A total of 45 (forty-five) points can thus be scored for each Key Person listed in the tender document.
- Below is a typical (**example**) of the position experience vs the position required matrix.

Typical Position Experience vs Position Required Matrix

Position Required Position Experience	PL	APL	DS	DA	CE	ACE
PL	5	5	2.5	5	5	5
APL	2.5	5	2.5	5	3.75	5
DS	2.5	2.5	5	5	3.75	5
DA	0	0	2.5	5	2.5	2.5
CE	5	5	2.5	5	5	5
ACE	2.5	5	2.5	5	3.75	5

5. Management Knowledge (max 30 points):

- a) The same returnable schedules as for the Technical Knowledge is used to evaluate the Managerial Knowledge.
- b) For Management Knowledge, up to 2 (two) areas are evaluated, i.e.:
 - i) Client (max 15 points); and
 - ii) Position Held (max 15 points) (only for managerial positions, e.g. PL, CE, RE).
- c) Client
 - i) The tender is allocated points based on the client for which the work was done for:
 - ii) A maximum of 5 (five) points are available per project relevancy experience and 15 (fifteen) points overall for client relevancy can be scored.
 - iii) Below is a typical (example) client code and points allocation.

Typical Client Code and Points Allocation

Client Code	Point
National Roads Authority	5.00
Concessionaire	5.00
Provincial Authority	5.00
Relevant SOE	4.50
Metro Council	4.50
Municipality	4.00
Private	3.75
Other	3.75

- d) Position Held (only for managerial positions)
 - i) This is only used for certain Key Persons that are expected to perform a managerial function during the contract.
 - ii) The relevance of the position held during the managerial experience, against the position that is tendered for, is evaluated.
 - iii) For CDP contracts only PL, CE and RE positions are considered:
 - iv) A maximum of 5 (five) points are available per project relevancy managerial experience and 15 (fifteen) points overall for position held relevancy can be scored.
 - v) A total of 30 (thirty) points can thus be scored for each Key Person listed in the tender document.

6. Quality System (max 10 points):

- a) The quality assurance system offered by the Tenderer is evaluated as indicated below:
- b) For full ISO certification, a Tenderer is awarded 10 (ten) points.
- c) For a quality assurance system that has been submitted to ISO for certification, but not yet certified, 6 (six) points are allocated.
- d) If the Tenderer's quality assurance system is an in-house system, 4 (four) points are allocated.

Quality Assurance System Type	Available Points
System has ISO Certification.	10
System has been registered for certification.	6
System is an in-house production.	4

7. Past Performance (max 15 points):

- a) The Past Performance Score is aligned to CIDB procedures and the Form below must be submitted by the Tenderer for any 3 (three) projects completed by the tenderer.
- b) For a completed project: ANNEX 1 – PSP PERFORMANCE REPORT.
- c) A maximum of 5 (five) past performance points are available per project with a total maximum of 15 (fifteen) for the 3 (three) projects.
- d) For tenderers with less than 3 (three) completed projects, a sworn affidavit (refer to Returnable Schedule B6) shall be submitted stating that the tenderer has in the last 10 (ten) years only completed either 0 (zero), 1 (one) or 2 (two) projects, and as a result cannot submit the required 3 (three) past performance project reports. If a sworn affidavit is submitted, the following will apply:
 - i) Submission of 0 (zero) past performance project reports, a rating of “Adequate” or 3 (three) points will be applied for all 3 (three) projects.
 - ii) Submission of 1 (one) past performance project reports, the rating as submitted will be applied, and a rating of “Adequate” or 3 (three) points will be applied for each of the other 2 (two) projects.
 - iii) Submission of 2 (two) past performance project reports, the ratings as submitted will be applied, and a rating of “Adequate” or 3 (three) points will be applied for the other 1 (one) project.

CIDB Rating	Poor $x < 0.1$	Adequate $- 0.1 \leq x < 0.9$	Good $0.9 \leq x < 1.8$	Excellent $x \geq 1.8$
SANRAL score	1	3	4	5

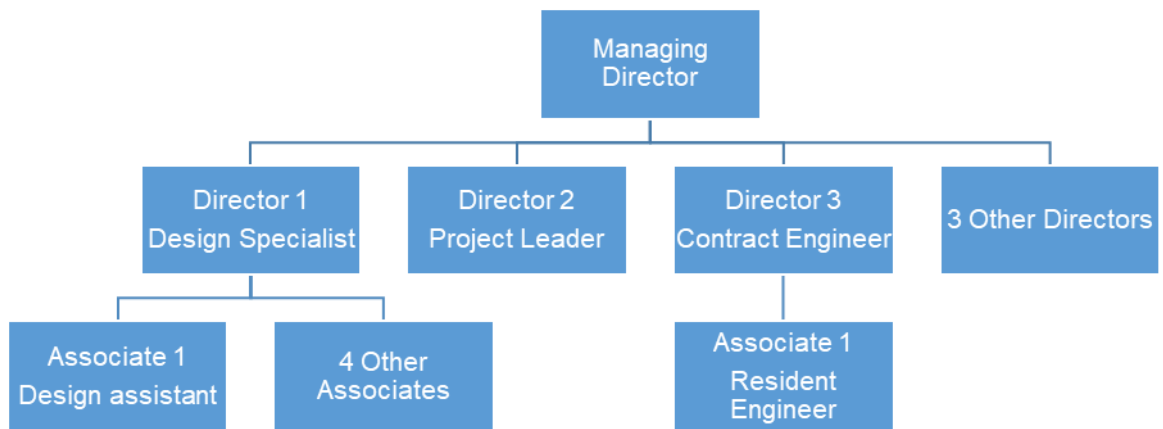
8. Conclusion

The various scores for the 4 (four) criteria are added together to establish the final score for the Tenderer and whether the tender makes the required threshold allocated to this project.

FORM B3: TENDERER'S PROJECT STRUCTURE**Notes to Tenderers:**

1. The intention of this form is to demonstrate the Tenderer's Project Structure, as well as the lines of responsibility between members of the project team and between the project team and the overall company structure. The Tenderer must attach his own organogram to this form.
2. Tenderers which are large companies may simplify the organogram by 'rolling up' portfolios e.g. combining directors and/or associates into one box of the organogram. However, the individual positions of the Key Persons within the structure must still be shown.
3. Joint Venture (JV) tenders will require each partner to the JV to submit separate organograms that show the individual structure of each partner company and the lines of responsibility of the proposed personnel involved in the project. In addition, there must also be a combined organogram that indicates how the JV itself will function and the proposed share of the work. JV Tenderers shall note that the share of work indicated will be used in the analysis of such a Tenderer's preference proposed on returnable Form D1, and that if awarded the share of work shall become a contractual obligation between the partners of the JV. A JV Agreement shall be submitted as part of this Returnable Schedule.
4. State the city or town where the company's head office is located. The locality of regional or satellite office, regardless of degree of autonomy or size is not required. Only submit the number of offices other than the head office. Do not count offices outside the RSA.
5. Registered professional engineers, technicians or technologists means those who are involved in the road construction or transport industry, as well as allied fields such as environmental professionals. Registered professionals of other disciplines (e.g. mechanical) are considered as employees only.

Head Office	<i>State City/Town</i>
Other Offices	<i>Only list number; localities not required.</i>
Registered Professionals: ECSA	<i>List only in road construction/transport industry.</i>
Registered Professionals: SACPCMP	
Total Employees	
Percentage (%) share in JV agreement	



Project Structure - *Example*

FORM B4: CERTIFICATE OF QUALITY SYSTEMS

Notes to Tenderers:

1. Attach to this form a current ISO, or similar system, certificate or summary of the in-house systems used.
2. Sufficient detail must be provided to clearly identify management systems for which accreditation has been issued, in the case of a certificate, or are being applied in the case of in-house programmes.
3. Summaries shall not be more than 2 x A4 pages.
4. Only relevant ISO accreditation contemplated for the work specified shall score maximum points.
5. Scan relevant certificate to the printed and bound hard copy and flash drive.

Refer to EXCEL file provided

FORM B5: PROJECT MANAGEMENT PROPOSAL (INCLUDING UNDERSTANDING AND APPROACH)

Notes to Tenderers:

1. The Tenderer is required to attach his Project Management Proposal (limited to 3 x A4 pages) to this page.
2. The Project Management Proposal, including a description of the methodology and workplan for performing the duties, shall follow the headings listed below:
 - a) Design Methodology
Provide information on the process that will be followed to arrive at a suitable design that promotes the purposes and objectives of the Small Contractor Development Programme and Community Development Project.
 - b) Supervision Methodology
Provide a breakdown of the personnel and time allocation to ensure that the requirements of Clause C3.7 of the Scope of the Work are met.
 - c) Supervision Structure
Provide an organogram indicating staff that will be permanently allocated to this project, as well as ad-hoc specialists that will be available to provide support.
3. The Tenderer shall also attach a Preliminary Programme (limited to 2 x A3 pages) reflecting the proposed sequences and tempo of execution of the various activities.

FORM B6: PAST PERFORMANCE PROJECT REPORTS

Notes to Tenderers:

1. The Tenderer is required to submit completed Annex 1 – PSP Past Performance Reports for any 3 (three) projects completed by the tenderer in the last 10 (ten) years.
2. The completed Annex 1 – PSP Past Performance Report must be signed by the client or the client's representative.
3. For Tenderers with less than 3 (three) completed projects, a sworn affidavit shall be submitted as per the template below.
4. Failure to submit a completed and signed Annex 1 – PSP Past Performance Report or a sworn affidavit will result in 0 (zero) points for past performance on the projects.

Refer to EXCEL file provided

AFFIDAVIT FOR PAST PERFORMANCE REPORTS ON COMPLETED PROJECTS

I, the undersigned,

Full name and surname	
Identity number	

hereby declare under oath as follows:

- a) The contents of this statement are to the best of my knowledge a true reflection of the facts.
- b) I am the authorised signatory for the tendering entity.

Enterprise name (Tendering entity)	
Trading name (if applicable)	

- c) I hereby declare under oath, by ticking the applicable box below, that the Enterprise has only previously completed:

0 (zero) projects	
1 (one) project	
2 (two) projects	

and as a result, cannot submit Past Performance Reports for the required 3 (three) projects.

- d) I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise which I represent in this matter.

Signed and sworn before me at on the day of
..... 20.....

.....
SIGNATURE OF DEPONENT

The deponent having:

- 1. Acknowledge that he/she knows and understands the contents hereof;
- 2. Confirmed that he/she has no objection to the taking of the prescribed oath; and
- 3. That he/she considered the prescribed oath as binding upon his/her conscience.

.....
COMMISSIONER OF OATHS

FORM B7: TARGETED ENTERPRISE OR SUB-CONTRACTOR DETAILS AND DECLARATION

Notes to Tenderers:

1. Complete and sign a declaration for every Targeted Enterprise and/or Sub-contractor to be utilised.
2. When selecting a Targeted Enterprise and/or Sub-contractor, ensure that the following requirements are adhered to:
 - a) Compliance with the definition of a Targeted Enterprise as stated in the Conditions of Contract in Clause 1: Definitions.
 - b) Compliance with Treasury Regulations – refer to Clause 11.2 of the Contract Data.
 - c) Targeted Enterprises from the Province in which the project is located must participate in a minimum of $\frac{1}{3}$ (one third) of the specified requirement for sub-letting as per Clause 5.1.7 of Contract Price (excluding provisional and prime cost sums and the respective mark-up but including provision for site staff salaries and the respective mark-up).
 - d) Compliance with Clause 4.13.1 of Tender Data with regards to a single tender submission.
 - e) Limiting the same Targeted Enterprise and/or Sub-contractor to participate in a maximum of 6 (six) concurrent projects with the Service Provider and the Employer.

Name of Targeted Enterprise or Sub-contractor.

Location of Head Office and other office if any (provide address).

Contact numbers (provide telephone numbers of above offices).

B-BBEE status level of Targeted Enterprise or Sub-contractor (provide scorecard or sworn affidavit as proof).

State whether the Targeted Enterprise or Sub-contractor is an EME or QSE.

Percentage (%) of Contract Price to be performed by this Targeted Enterprise or Sub-contractor

% of Contract Price (excl provisional & prime cost sums and the respective mark-up (if any)) but including provision for site supervision staff (Payment Item 3.7.4 (a) and (b)) to be performed by this Targeted Enterprise

Is the Targeted Enterprise a Consulting Engineering Firm as stated in the Conditions of Contract in Clause 1: Definitions?

☐

Provide SARS Tax Reference Number (attach scanned copy of current valid Tax Clearance Certificate as proof or refer to Form C1.1.5).

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONTRACT SANRAL C.002-025-2018/1S

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Comments:

I declare that the information furnished by me is to my knowledge true and correct in all respects. Any false declarations will constitute a breach of the contract and the relevant person(s) will be disqualified from any further tender related matters, or if it becomes evident during contract stage that false information has been included, the contract will be terminated with immediate effect.

SIGNATURE:
TARGETED ENTERPRISE/SUB-CONTRACTOR

NAME:

POSITION:

DATE:

SIGNATURE:
TENDERER

NAME:

POSITION:

DATE:

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONTRACT SANRAL C.002-025-2018/1S

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PART C1: AGREEMENTS AND CONTRACT DATA

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C1.1 FORMS OF OFFER AND ACCEPTANCE

Notes to Tenderers:

1. Should a Tenderer wish to offer a different period of completion than that specified by the Employer, it shall be submitted as an alternative offer on a separate Form of Offer.
2. If more than one alternative tender is submitted each shall be numbered and submitted on a separate Form of Offer duly completed and signed.

C1.1.1 FORM OF OFFER (INCORPORATING SBD7)

Notes to Tenderer:

1. If a tenderer submits an alternative offer, but
 - i. Permission was not granted, where applicable; or
 - ii. Postulated offer is not submitted.

The tender shall be declared non-responsive tender offer.

The South African National Roads Agency SOC Limited
PO Box 415
PRETORIA
0001

Sir,

CONTRACT SANRAL C.002-025-2018/1S

CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

I/we, by signing this part of the forms of offer and acceptance, confirm that I/we practise the principles of corporate governance that abhors corruption and fraud and that we have examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules and am/are duly authorised to represent and commit the Tenderer to the contractual obligations contained therein.

I/we further confirm that by submitting this offer the Tenderer accepts the conditions of tender and offers to perform all the obligations and liabilities of the Service Provider under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of tender and the conditions of contract identified in the contract data.

A. PRICE OFFERED

THE OFFERED TOTAL OF THE PRICES (INCLUSIVE OF VALUE ADDED TAX) BROUGHT FORWARD FROM PART C2.3: SUMMARY OF PRICING SCHEDULE, IS:

.....

..... (in words)

(R in figures)

I/we confirm that if any difference between the total of the Summary of Pricing Schedule and the amounts stated above exists, the total in the Summary of Pricing Schedule shall apply.

B. PREFERENCE CLAIMED

I/we claim the following B-BBEE contributor status level as per Returnable Schedule Form D1: Tenderer's B-BBEE Verification Certificate subject to Tender Data 5.11.8. In the event of any difference between the above stated status level and the Verification Certificate attached to Form D1, the Verification Certificate shall apply.

You may accept this offer by signing and returning to the Tenderer one copy of the acceptance part of the forms of offer and acceptance before the end of the period of validity stated in the tender data, (or at the end of any agreed extension thereof), whereupon the Tenderer becomes the party named as the service provider in the conditions of contract identified in the contract data.

Notwithstanding anything contained in a covering letter to this tender, I/we declare this offer is submitted entirely without deviations or qualifications other than those stipulated in Form A4: Schedule

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of Deviations or Qualifications by the Tenderer and that it is made free from any fraud, corruption and misrepresentation.

Yours faithfully

SIGNATURE: DATE:

NAME (IN CAPITALS):

CAPACITY:

Date and minute reference of Board resolution if different from returnable schedule Form A2.1:

Certificate of Authority for signature

NAME AND ADDRESS OF ORGANISATION:

.....

NAME AND SIGNATURE OF WITNESSES:

SIGNATURE: DATE:

NAME (IN CAPITALS):

SIGNATURE: DATE:

NAME (IN CAPITALS):

C1.1.2 FORM OF ACCEPTANCE (INCORPORATING SBD7)

(Note to Compiler: Form to be printed on SANRAL letterhead.)

To **(Name of successful Tenderer)**

Dear Sir,

CONTRACT SANRAL C.002-025-2018/1S

CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT AND SMALL CONTRACTOR TRAINING AND DEVELOPMENT ON ACCESS ROADS IN AND NEAR KWAGGAFONTEIN B ACCEPTANCE OF OFFER

1. It is our pleasure to inform you that the South African National Roads Agency SOC Ltd (the Employer) accepts your **(select if applicable corrected or corrected alternative or alternative)** offer in the amount of R ... **(insert amount)** (i.e. including VAT, but excluding CPA and any contingent sum not in the priced schedule).
2. The amount due may not be the accepted price but payment shall be made in accordance with the Conditions of Contract identified in the Contract Data, including the set-off of any debt agreed to which is due and payable as per Returnable Schedule Form A2.2.
3. Acceptance shall form an agreement between us according to the terms and conditions contained in this form and in the Contract which comprises of:

Part C1: Agreements and Contract Data (including this Form of Acceptance),
Part C2: Pricing Data,
Part C3: Scope of the Work,
Part C4: Site Information and
Part C5: Annexure

together with issued drawings and other documents, or parts thereof, which may be incorporated by reference into Parts C1 to C5 listed above.
4. Deviations and/or qualifications included in your offer as well as any changes to the terms of the offer agreed by us during the process of offer and acceptance shall not be valid unless contained in the appended schedule of deviations. **(Note to Compiler: If no deviation state: "There are no deviations, qualifications or changes to the documents.")** Addenda issued during the tender period are deemed not to be deviations to the tender documents and schedules.
5. Notwithstanding the need to agree the mandate required by Section 37 of the Occupational Health and Safety Act (Act 85 of 1993), of which a pro-forma is attached for your reference, we hereby appoint you as our Agent in terms of Regulation 5(5) of the Construction Regulations, GNR 84 of 2014.
6. In terms of the Employer's Supply Chain Management (SCM) Policy for Infrastructure Procurement and Delivery Management we hereby appoint you as a member and/or technical advisor of the following committees:
 - a) Project Document Review Committee and
 - b) Bid Evaluation Committee (BEC).
7. A SARS compliance check has been done on you and you are found to be ... **(Select: "compliant" or "non-compliant")**.

(Note to Compiler: Check SARS website for compliance. If not compliant add the following sentence: Within 7 (seven) working days of the date of this Form of Acceptance you shall

provide proof that you are SARS compliant. Failure to fulfil this obligation shall constitute a repudiation of this Agreement.”)

8. Within 14 calendar days of the date of this Form of Acceptance (including the schedule of deviations if any) you shall deliver to us:
- i) Proof of insurance in terms of the information provided in the Contract Data and clause 5.4 of the General Conditions of Contract. Proof of validity of insured cover shall be provided monthly until contract completion.
 - ii) Completed Form of Banking Details which is attached hereto (Form C.1.1.4).
 - iii) Completed Tax Compliance Permission Declaration which is attached hereto (Form C.1.1.5).
 - iv) Proof of registration on the Employer's Project Information Module (ITIS).
 - v) Proof that your OHS Specialist is registered with the South African Council for Project and Construction Management Professions (SACPCMP) as a Professional Construction HSE Agent for the Design Phase and as a Construction HSE Manager for the Construction Phase.
 - vi) Proof that other required resources (additional design specialists other than Key Persons, and if applicable, assistants to the PL, DS and CE) meet the minimum requirements in terms of professional registration and experience as stated in the Scope of Works.
 - vii) Copy of the Joint Venture Agreement. *(Note to Compiler: Delete if JV is not applicable.)*

Failure to fulfil this obligation shall constitute a repudiation of this agreement. In addition to any other rights of remedy the Service Provider shall, if (a) above has not been met, be automatically barred from tendering on any of our future tenders for a period to be determined by us, but not less than twelve (12) months, from the date of tender closure.

9. The effective date of the contract shall be the date of this Form of Acceptance unless you, within seven (7) calendar days of the effective date, notify us in writing of any justification why you cannot accept the contents of this agreement.
10. The commencement date of the performance of the Service shall be ... *(Note to Compiler: Insert the date, which is 14 calendar days after the date of this Form of Acceptance.)*
11. The Project Hand-over meeting date shall be ... *(Note to Compiler: Determine the period required for a desktop assessment depending on the complexity of the project and the volume of information available, but it shall not be less than 28 calendar days after the commencement date.)* The requirements for the Project Hand-over meeting is specified in Clause C3.1.12(a). For this meeting, you are provided with a CD/DVD containing the available historic information to aid you to perform the desktop assessment. A draft Agenda for the hand-over meeting is also provided to aid you in preparing for the meeting. *(Note to Compiler: Use draft Agenda as per #1758485 and Notes to Agenda #1758693.)*
12. Notwithstanding that a full, original-signed copy of the contract document containing all Contract Data and Schedules (including that of accepted deviations) will be delivered to you, this Form of Acceptance constitutes the binding contract between us.
13. The approved Key Person(s) for this project is(are):

(Note to Compiler: List all relevant approved Key Positions and enter name of person.)

Key Position

Name

.....
.....
.....
.....

SIGNATURE:DATE:

NAME:

CAPACITY: Regional Manager

EMPLOYER'S NAME AND ADDRESS: South African National Roads Agency SOC Limited
38 Ida Street.....

Menlo Park.....
Pretoria
0081

NAME AND SIGNATURE OF WITNESSES:

SIGNATURE:DATE:

NAME:

SIGNATURE:DATE:

NAME:

AUTHORITY TO ACT: SANRAL's Delegation of Powers 2.4.1.2

C1.1.3 APPENDIX TO FORM OF ACCEPTANCE – SCHEDULE OF DEVIATIONS

Notes to Tenderer:

1. The extent of deviations from the tender documents issued by the Employer before the tender closing date is limited to those permitted in terms of the Conditions of Tender.
2. A Tenderer's covering letter shall not be included in the final contract document. Should any such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the Contract and shall also be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporate into the final draft of the Contract.

The deviations listed below constitute agreed variations and/or amendments to the tender document negotiated between the Tenderer and the Employer based on information provided in Form A4: Schedule of Variations or Deviations by Tenderer or imposed conditions of award. Addenda issued during the tender period are deemed not to be variations to the tender.

1. Subject:
Details:
2. Subject:
Details:
3. Subject:
Details:
4. Subject:
Details:

By the duly authorised representatives signing this agreement, the Employer and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from, and amendments to, the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this agreement shall have any meaning or effect in the Contract between the Parties arising from this agreement. **(Note to Compiler: If an alternative offer has been accepted by the Employer, the various elements of the alternative offer must be listed in this appendix.)**

C1.1.4 FORM OF BANKING DETAILS

Notes to Tenderer:

1. The Employer applies an Electronic Funds Transfer system for all payments.
2. If you are already registered as a vendor with the Employer, you are not required to submit the documentation as per note 3.
3. If you are not registered as a vendor with the Employer, you are required to supply a completed SANRAL Vendor Application Form (a copy of the Application Form is provided below).



APPLICATION FOR VENDOR REGISTRATION

Vendor Name as per Company Registration

Joint Venture (JV)	Yes	No	*If yes provide JV Agreement.
Business Physical Address		Business Postal Address	
Town/City		Town/City	
Country		Country	
Postal Code		Postal Code	
Tel. No.		Fax No.	
Company Registration Number		B-BBEE Status Level	
Income Tax Number		VAT Registration Number	
CSD Registration Number		CSD Unique Code	

THIS SECTION MUST BE COMPLETED FOR ALL ELECTRONIC PAYMENTS

Name of Bank

Account Number	Account Type
Branch Name	Branch Code
Applicant's Authorisation Officer: PRINT NAME	
Applicant's Authorisation Officer: SIGNATURE	

The following documentation must be submitted with this form:

1. Full Central Supplier Database (CSD) Report.
2. If a Joint Venture is registered, provide all JV partners' CSD Reports.
3. If a Joint Venture is registered, provide the JV agreement.
4. An indemnity letter on your letterhead stating your bank details as per CSD Report (use the pro-forma supplied).
5. in case of a Joint Venture, confirmation of the Leading Partner's bank detail or the JV bank detail.
6. A sworn affidavit or a B-BBEE Certificate as per the amended construction sector codes.

The above should be e-mailed to the relevant office as indicated:

	Head Office: procurementho@nra.co.za
X	Northern Region: procurementnr@nra.co.za
	Eastern Region: procurementnr@nra.co.za
	Southern Region: procurementsr@nra.co.za
	Western Region: procurementwr@nra.co.za

OFFICIAL USE ONLY

Region:

HO	NR X	ER	SR	WR
-----------	-----------------	-----------	-----------	-----------

Type of Vendor:

CONTRACT	SUNDRY	PERSONNEL
-----------------	---------------	------------------

Status of Vendor:

NEW	CHANGE	BLOCK	UNBLOCK: REASON
------------	---------------	--------------	------------------------

AUTHORISING OFFICER REGION:

AUTHORISING OFFICER HO:

--	--

VENDOR NUMBER ALLOCATED:

REFER TO EXISTING VENDOR NUMBER:

--	--

INDEMNITY LETTER

SERVICE PROVIDER'S LETTER HEAD
AND ADDRESS

... (insert date)

The South African National Roads Agency SOC Limited
P O BOX 415
PRETORIA
0001

Attention: Chief Financial Officer

Dear Madam

In consideration of your request to furnish your company with our banking details, we hereby undertake and agree to indemnify SANRAL in full against all consequences, liabilities of any kind whatsoever directly arising from or relating to the said request. This shall include but not limited to any incorrect information or details provided by us.

We further confirm that the below are (insert company's name)'s correct bank account details, as per the attached CSD Report.

Account Name:

Bank:

Branch Name:

Branch Code:

Account No:

Please note that the undersigned is an authorised signatory of the company.

Kind Regards

..... (signature)

..... (insert name)

..... (insert designation)

..... (insert ID number)

C1.1.5 TAX COMPLIANCE PERMISSION DECLARATION

Note to Tenderer:

1. In terms of National Treasury Instruction, No. 9 of 2017/2018 with reference to the Public Finance Management Act, 1999 (Act No 1 of 1999) and Regulations, the Service Provider and sub-contractors are required to provide the Employer with written confirmation to access the SARS Electronic Tax Compliance Status (TCS) system to verify and continuously track the tax compliance status of all persons conducting business with the State.

The Service Provider shall complete the declaration below.

I, (name)
the undersigned in my capacity as (position)
on behalf of (name of company)
herewith grant consent that SARS may disclose to the South African National Roads Agency SOC Limited (SANRAL) our tax compliance status on an ongoing basis for the contract term. Our unique security personal identification number (PIN) is

In addition, the Service Provider shall obtain written consent from each of its sub-contractors, undisclosed principals and partners involved in this contract confirming that SARS may, on an ongoing basis during the contract term disclose the sub-contractors' tax compliance status to the Employer. The Service Provider shall provide the Employer with the unique security personal identification number (PIN) for each of its sub-contractors, undisclosed principals and partners involved in this contract.

If the Tenderer is a Joint Venture (JV), each member shall comply with the above requirement.

SIGNATURE:

DATE:

NAME:

POSITION:

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONTRACT SANRAL C.002-025-2018/1S

CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

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C1.2.1 CONDITIONS OF CONTRACT

Note to Tenderers:

The legislated Standard Conditions of Contract for Professional Services (as published and amended from time to time by the Construction Industry Development Board) are included together with SANRAL's special conditions of contract where the former is shown in standard format and SANRAL's amendments (i.e. special conditions) shown in italics. SANRAL's special conditions of contract are shown in italics as amending clauses of the Standard Conditions.

1. DEFINITIONS

In the Contract, the following words and expressions shall have the meanings indicated, except where the context otherwise requires. Defined terms and words are signified in the text of the Contract by using capital initial letters.

Agent

The Service Provider appointed in terms of the Occupational Health and Safety Act No. 85 of 1993, including the relevant Regulations.

Black People

Black people has the meaning assigned to it in section 1 of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003).

Construction Monitoring/Supervision

The process of managing and coordinating the Training and Development Works Contract and over-seeing and/or inspecting the Works in accordance with the Employer's requirements.

Consulting Engineering Firm

A natural person or legal entity which provides independent technology-based intellectual services in the built, human and natural environment to clients for a fee, and does not engage in or is not a subsidiary or holding company of a company that engages in manufacturing or construction and is not in substance owned by the State or a similar public body or is not in substance the design department of a development, manufacturing or construction enterprise.

Contract

The Contract signed by the Parties and of which these General Conditions of Contract form part.

Contractor

The contracting party named as Contractor in the Letter of Tender of the *Training and Skills Development Works Contract accepted by the Employer. Reference to the Training and Construction Manager is interchangeable with reference made to the Contractor.*

The contracting party named as Contractor in the Letter of Tender of the Works Contract accepted by the Employer.

Contract Data

Specific data, which together with these General Conditions of Contract, collectively describe the risks, liabilities and obligations of the contracting Parties and the procedures for the administration of the contract.

Contract Price

The price to be paid for the performance of the Services in accordance with the Pricing Data.

Day

A calendar day.

Defect

A part of the Services, as performed, which does not comply with the requirements of the Contract.

Deliverable

Any measurable, tangible, verifiable outcome, result or item that must be produced or completed.

EME

EME is an exempted micro enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003).

Employer

The contracting party named in the Contract who employs the Service Provider.

Engineer

The natural or juristic person, partnership, Incorporated Company, Propriety Limited Company or Close Corporation appointed in writing by the Employer for the construction monitoring and management of the engineering Works undertaken by the Training and Construction Manager.

Force Majeure

"For this Contract, the expression 'Force Majeure' shall mean an event or circumstance described in clause 8.3.1.

Key Persons

Persons who are named as such in the Contract Data who will be engaged in the performance of the Services.

Others

Persons or organizations who are not the Employer, the Service Provider or any employee, sub-contractor, or supplier of the Service Provider.

Parties

The Employer and the Service Provider.

People with Disabilities

People with Disabilities has the meaning assigned to it in section 1 of the Employment Equity Act, 1998 (Act No. 55 of 1998).

Period of Performance

The period within which the Services are to be performed and completed.

Personnel

Persons hired by the Service Provider as employees and assigned to the performance of the Services or any part thereof.

Personnel Schedule

A schedule naming all personnel and key persons.

Pricing Data

Data that establishes the criteria and assumptions that were taken into account when developing the Contract Price and the record of the components that make up of the Contract Price.

Project

The project named in the Contract Data for which the Services are to be provided.

QSE

QSE is a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003).

Scope of Work

The document which defines the Employer's objectives and requirements and specifies the Services which must, or may, be provided under the Contract.

Service Provider

The contracting party named in the Contract Data who is employed by the Employer to perform the Services described in the Contract, and legal successors to the Service Provider and legally permitted assignees.

Services

The work to be performed by the Service Provider pursuant to the Contract as described in the Scope of Work.

Sub-contractor

A person or body corporate who enters into a sub-contract with the Service Provider to perform part of the Services.

Targeted Enterprise

A Consulting Engineering Firm who is an EME (BEP)* or QSE (BEP)*, contracted by the Service Provider to perform a specified percentage of work stated in the Contract Data under his guidance and which complies with the following:

- a) is at least 51% owned by black people; and
- b) has a B-BBEE status* of 'level one or level two contributor'; and
- c) does not share equity holding with the Service Provider; and
- d) is registered in terms of the Company's Act, 2008 (Act No. 71 of 2008) or Close Corporation Act, 1984 (Act No. 69 of 1984); and
- e) is registered on the National Treasury's Central Supplier Database (CSD).

*** NOTE:**

All references to EME, QSE, B-BBEE status are in terms of the amended Construction Sector Codes published in Notice 931 of 2017 in Government Gazette No 41287 on 1 December 2017.

Technical Proposal

The Key Persons proposed by the Service Provider to undertake the respective functions/duties as defined under the Contract.

Works or Training and Development Works Contract

That project or part of a project that the employer wishes to have delivered and for which the Service Provider has been appointed for the performance of the services specified in this contract.

Youth

For purposes of this contract, Youth means persons between the ages of 18 (eighteen) and 35 (thirty-five).

2. INTERPRETATION

2.1 Unless inconsistent with the context, an expression which denotes:

- a) any gender includes the other genders;
- b) a natural person includes a juristic person and vice versa;
- c) the singular includes the plural and vice versa.

2.2 *The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of documents shall be in accordance with the following sequence:*

- a) *the Form of Acceptance*
- b) *the Form of Offer*
- c) *the Contract Data*
- d) *the General Conditions of Contract*
- e) *the Scope of Work*
- f) *the Pricing Schedule and any other documents forming part of the Contract.*

2.3 The clause headings shall not limit, alter or affect the meaning of the Contract.

3. GENERAL

3.1 Governing laws

“Law” means all national (or other spheres of Government) legislation, statutes, ordinances and other laws including the South African Common Law, and regulations and by-laws of any legally constituted public authority.

3.2 Change in legislation

If after the commencement of the Contract, the cost or duration of the Services is altered as a result of changes in, or additions to, any statute, regulation or bye-law, or the requirements of any authority having jurisdiction over any matter in respect of the Project, then the Contract Price and time for completion shall be adjusted in order to reflect the impact of those changes, provided that, within 14 days of first having become aware of the change, the Service Provider furnished the Employer with detailed justification for the adjustment to the Contract Price.

3.3 Language

3.3.1 The language of the Contract and of all communications between the Parties shall be English.

3.3.2 All reports, recommendations and reports prepared by the Service Provider under the Contract shall be in English.

3.4 Notices

3.4.1 Any notice, request, consent, or other communication made between the Parties pursuant to the Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when *delivered* to such Party at the address *stated* in the Contract *Data*, or one week after having been sent by registered post.

3.4.2 If the sender requires evidence of receipt, he shall state such requirement in his communication and, wherever there is deadline for the receipt of the communication, he may demand evidence of receipt of his communication. In any event, the sender shall take all the necessary measures to ensure receipt of communications.

3.4.3 A Party may change its address for receipt of communications by giving the other Party 30 days advance notice of such change.

3.5 Location

The Services shall be performed at such locations as are specified in the Contract Data, and where the location of a particular task is not so specified, at such locations as the Employer may approve.

3.6 Publicity and publication

Unless otherwise agreed, the Service Provider shall not release public or media statements or publish material related to the Services or Project within two (2) years of completion of the Services without the written approval of the Employer, which approval shall not be unreasonably withheld.

3.7 Confidentiality

Both Parties shall keep all commercially sensitive information obtained by them in the context of the Contract confidential and shall not divulge it without the written approval of the other Party except to the *extent strictly necessary to carry out obligations under this Contract or to comply with applicable laws*.

3.8 Variations

3.8.1 The Employer may, without changing the objectives or fundamental scope of the Contract, order variations to the Services or may request the Service Provider to submit proposals, including the time and cost implications, for variations to the Services. *No variation shall have any force or effect unless reduced to writing and signed by both Parties.*

3.8.2 The reasonable cost of preparation and submission of such proposals and the incorporation into the Contract of any variations to the Services ordered by the Employer, including any change in the Contract Price, shall be agreed in writing between the Service Provider and the Employer, *prior to the change being implemented.*

3.8.3 Where a variation is necessitated by default or breach of Contract by the Service Provider, any additional cost attributable to such variation shall be borne by the Service Provider.

3.9 Sole agreement

The Contract constitutes the sole agreement between the Parties for the performance of the Services and no representation not contained therein shall be of any force or effect. No amendments will be of any force or effect unless reduced to writing and signed by both Parties.

3.10 Indemnification

The Service Provider shall, at his own expense, indemnify, protect and defend the Employer, its agents and employees, from and against all actions, claims, losses and damage arising from any *wilful or negligent act or omission* by the Service Provider *or his sub-contractors* in the performance of the Services, including any violation of legal provisions, or rights of others, in respect of patents, trademarks and other forms of intellectual property such as copyrights.

3.11 Penalty

3.11.1 In the event that due to his negligence, or for reasons within his control, the Service Provider does not perform the Services within the Period of Performance, the Employer shall without prejudice to his other remedies under the Contract, be entitled to levy a penalty for every day or part thereof, which shall elapse between the end of the period specified for performance, or an extended Period of Performance, and the actual date of completion, at the rate and up to the maximum amount stated in the Contract Data.

3.11.2 If the Employer has become entitled to the maximum penalty amount referred to in 3.11.1, he may after giving notice to the Service Provider:

- a) terminate the Contract; or
- b) complete the Services at the Service Provider's cost.

3.11.3 *In the event that due to his negligence or for reasons within his control, the Service Provider does not meet the specified target of work stated in the Contract Data to the Targeted Enterprise the Employer shall be entitled to levy a penalty as stated in the Contract Data.*

3.11.4 *In the event that due to his negligence or for reasons within his control, the Service Provider does not disclose subcontracting arrangements the Employer may be entitled to levy a penalty as stated in the Contract Data.*

3.11.5 *In the event that due to his negligence or for reasons within his control, the Service Provider does not perform the service of capturing structures inventory and condition updates within the specified period of time, the Employer shall be entitled to levy a penalty as stated in the Contract Data.*

3.12 Equipment and materials furnished by the Employer

3.12.1 Equipment and materials made available to the Service Provider by the Employer, or purchased by the Service Provider with funds provided by the Employer for the performance of the Services shall be the property of the Employer and shall be marked accordingly. Upon termination or expiration of the Contract, the Service Provider shall make available to the Employer an inventory of such equipment and materials and shall dispose of them in accordance with the Employer's instructions.

3.12.2 *Unless otherwise stated in the Contract Data, the Service Provider shall, at his own expense, insure the equipment and materials referred to in 3.12.1 for their full replacement value.*

3.13 Illegal and impossible requirements

The Service Provider shall notify the Employer immediately, should he become aware that the Contract requires him to undertake anything which is illegal or impossible.

3.14 Programme

3.14.1 The Service Provider shall, within the time period set out in the Contract Data, submit to the Employer a programme for the performance of the Services which shall, *inter alia*, include:

- a) the order and timing of operations by the Service Provider and any actions required of the Employer and Others;
- b) the dates by which the Service Provider plans to complete work needed to allow the Employer and Others to undertake work required of them; and
- c) other information as required in terms of the Scope of Work or Contract Data.

3.14.2 The Employer may, during the course of the Contract, request the Service Provider to amend the programme. Where this is not practicable, the Service Provider shall advise the Employer accordingly and advise him of alternative measures, if any, which might be taken.

3.14.3 The Service Provider shall regularly update the programme to reflect actual progress to date and expected future progress.

3.15 Severability

If a court of competent jurisdiction holds that any provision of this Contract is severable because of it being invalid, illegal, unlawful or unenforceable and as a consequence of which prevents the accomplishment of the purpose of this Contract, the Employer and the Service Provider shall meet and review the matter to adopt means to fulfil the purpose of the Contract.

3.16 Waiver

No defense of a waiver of any of the provisions of this contract shall be effective unless it is expressly stated in writing, by the Party against whom such defense is raised, to be a waiver

of such provisions and is communicated to the other Party in writing in accordance with the provisions of Clause 3.4.

4. EMPLOYER'S OBLIGATIONS

4.1 Information

- 4.1.1 The Employer shall timeously provide to the Service Provider, free of cost, all available information and data in the Employer's possession which may be required for the performance of the Services.
- 4.1.2 The Employer shall provide the Service Provider with any assistance required in obtaining other relevant information that the latter may require in order to perform the Services.
- 4.1.3 The Service Provider shall be entitled to rely on the accuracy and completeness of all information furnished by or on behalf of the Employer.

4.2 Decisions

The Employer shall, within a reasonable time, give his decision on any matter properly referred to him in writing by the Service Provider so as not to delay the performance of Services.

4.3 Assistance

The Employer shall co-operate with the Service Provider and shall not interfere with or obstruct the proper performance of the Services. The Employer shall as soon as practicable:

- 4.3.1 authorise the Service Provider to act as his agent insofar as may be necessary for the performance of the Services;
- 4.3.2 provide all relevant data, information, reports, correspondence and the like, which become available;
- 4.3.3 procure the Service Provider's ready access to premises, or sites, necessary for the performance of the Services;
- 4.3.4 assist in the seeking of all approvals, licenses and permits from state, regional and municipal authorities having jurisdiction over the Project, unless otherwise stated in the Contract Data;
- 4.3.5 designate in writing a person to act with his complete authority in giving instructions and receiving communications on his behalf and interpreting and defining his policies and requirements in regard to the Services.

4.4 Services of others

- 4.4.1 The Employer shall, at his own cost, engage such others as may be necessary for the execution of work necessary for the completion of the Project, but not included in the Services.
- 4.4.2 The Employer shall not enter into an agreement or contract with others which describes any of the duties and responsibilities of the Service Provider in terms of the Contract or which imposes obligations on him, without first obtaining the Service Provider's written agreement thereto.

4.5 Notice of change by Employer

On becoming aware of any matter which will materially change, or has changed, the scope, cost or timing of the Services, or on becoming aware of any defect or deficiency in the Services, the Employer shall immediately advise the Service Provider thereof.

4.6 Issue of instructions

Where the Service Provider is required to administer the work or services of Others, or any contract or agreement, on behalf of the Employer, then the Employer shall issue instructions related to such work, services, contract or agreement only through the Service Provider.

4.7 Payment of Service Provider

The Employer shall pay the Service Provider the Contract Price in accordance with the provisions of the Contract.

5. SERVICE PROVIDER'S OBLIGATIONS

5.1 General

5.1.1 The Service Provider shall perform the Services in accordance with the Scope of Work with all reasonable care, diligence and skill in accordance with generally accepted professional techniques and standards *and shall be responsible for breach of professional duty because of any error, omission or neglect in connection with delivering the services*

5.1.2 Where the Services include the exercise of powers to certify, decide or otherwise exercise discretion in regard to a contract or agreement between the Employer and Others, then the Service Provider shall act in respect of that contract or agreement as an independent professional.

5.1.3 If the Service Provider is a joint venture or consortium of two or more persons, the Service Provider shall designate one person to act as leader with authority to bind the joint venture or consortium. Neither the composition nor the constitution of the joint venture or consortium shall be altered without the prior consent in writing of the Employer, which shall not be unreasonably withheld.

5.1.4 *Unless specifically instructed differently, the Service Provider is delegated as the Employer's "Mandatory" in terms of the Occupational Health and Safety Act (Act no. 85 of 1993), and as the Employer's Agent as defined in Construction Regulations 5(5), (6) and (7) of the said Act.*

5.1.5 *The Service Provider, if requested by the Employer, shall provide any plans and calculations for checking by others.*

5.1.6 *All design calculations shall be kept and safeguarded for the duration of the insurance(s) required in terms of Clause 5.4.1.*

5.1.7 *The Service Provider shall enter into a contract over the full contract duration (either through partnership, joint venture or sub-contracting) with a Targeted Enterprise(s) to perform a percentage of work as stated in the Contract Data.*

5.1.8 *The Service Provider undertakes to pay the Targeted Enterprise(s) the full value due in each interim fee claim. The Service Provider further undertakes to make payment within 30 (thirty) days of presentation by the Service Provider of the interim fee claim to the Employer for payment, or by the 30th of the month following that in which the Targeted Enterprise(s) completed the work, whichever date is earlier.*

5.2 Exercise of authority

1.2.1 The Service Provider shall have no authority to relieve others appointed by the Employer to undertake work on the Project of any of their duties, obligations, or responsibilities under their respective agreements or contracts, unless expressly authorised by the Employer in response to an application by the Service Provider in writing to do so.

1.2.2 *Whenever necessary to enter upon land for the performance of the Contract the Service Provider shall do so in accordance with the provisions of the SANRAL Act, (Act 7 of 1998)*

and shall indemnify the Employer from all costs arising from any transgression committed by the Service Provider.

1.3 Designated representative

The Service Provider shall designate in writing a person to act as his representative and such person shall have complete authority to receive instructions from and give information to the Employer on behalf of the Service Provider.

1.4 Insurances to be taken out by the Service Provider

1.4.1 The Service Provider shall, at his own cost, unless otherwise agreed, take out and maintain in force such insurance policies in respect of their own risks in performing the Services as are stipulated in the Contract Data, subject to the approval of the Employer, which approved shall not be unreasonably withheld.

1.4.2 The Service Provider shall, at the Employer's request, provide evidence to the Employer showing that the insurance required in terms of Clause 5.4.1 has been taken out *with an insurance company registered in the Republic of South Africa, or as otherwise approved by the Employer* and maintained in force.

1.5 Service Provider's actions requiring Employer's prior approval

The Service Provider shall obtain the Employer's prior approval in writing before taking, inter alia, any of the following actions:

- a) appointing Sub-contractors for the performance of any part of the Services,
- b) appointing Key Persons not listed by name in the Contract Data.
- c) any other action that may be specified in the Contract Data.

1.6 Co-operation with Others

If the Service Provider is required to perform the Services in co-operation with Others he may make recommendations to the Employer in respect of the appointment of such Others. The Service Provider shall, however, only be responsible for his own performance and the performance of Sub-contractors unless otherwise provided for.

1.7 Notice of change by Service Provider

On becoming aware of any matter which will materially change or has changed the scope, cost or timing of the Services, the Service Provider shall give notice thereof to the Employer, save that the Service Provider is empowered to make minor changes or variations within the overall programme or budget and within such parameters as are defined by the Employer, provided that such changes are reported timeously to the Employer.

1.8 Safeguarding the Employer's data

1.8.1 *The Parties shall take reasonable precautions (each having regard to the nature of the others' respective obligations under the Contract) to preserve the integrity of the Employer's data including appropriate back-up procedures.*

5.8.2 *If the Employer's data is corrupted or lost due to any default by the Service Provider, the Employer shall at the Service Provider's expense, have the option to:*

- a) *require the Service Provider to restore or procure the restoration of such data; or;*
- b) *itself restore or procure restoration of such data.*

5.9 Performance Security

Where required, the Service Provider shall obtain (at his cost) a Performance Security for proper performance in the amount and currencies stated in the Contract Data. If an amount is not stated in the Contract Data, this sub-clause shall not apply.

The Service Provider shall deliver the Performance Security to the Employer within 14 days of the date of issue of the Letter of Acceptance. The Performance Security shall be issued by an insurance company or bank registered or licensed as an insurance company or bank to do business in the Republic of South Africa and approved by the Employer and having an office or banking facility in the Republic of South Africa. The Performance Security shall be subject to approval by the Employer and shall be in the form prescribed in the tender documents.

2. CONFLICTS OF INTEREST, CORRUPTION AND FRAUD

1.1 Service Provider not to benefit from commissions, discounts, etc.

The remuneration of the Service Provider under the Contract shall constitute the Service Provider's sole remuneration in connection with the Contract, or the Services, and the Service Provider shall not accept for his own benefit any trade commission, discount, or similar payment in connection with activities pursuant to the Contract, or in the discharge of his obligations under the Contract, and shall use his best efforts to ensure that the Personnel, any sub-contractors, and agents of either of them shall, similarly, not receive any additional remuneration.

1.2 Royalties and the like

The Service Provider shall not have the benefit, whether directly or indirectly, of any royalty or of any gratuity or commission in respect of any patented or protected article or process used in or for the purposes of the Contract, or Project, unless so agreed by the Employer in writing.

1.3 Independence

The Service Provider shall refrain from entering into any relationship which could be perceived as compromising his independence of judgment, or that of Subcontractors or Personnel.

1.4 Corruption and Fraud

1.4.1 The Service Provider shall neither:

- a) *Offer or give or agree to give any person of the Employer any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forebore to do any act in relation to the obtaining or performance of this contract or any other contract with the Employer or for showing or forbearing to show favour or disfavour to any person in relation to this contract; nor*
- b) *Enter into this contract if, in connection with it, commission or a reward of any type has been paid, offered or agreed to be paid to any person of the Employer by the Service Provider or on his behalf or knowledge.*

1.4.2 If the Employer, in good faith and on reasonable grounds, comes to the opinion, that a breach of any of the provisions of Clause 6.4.1 has been perpetrated by the Service Provider or anyone employed by him or acting on his behalf in relation to this contract or any other agreement with the Employer, the Employer may:

- a) *summarily suspend the operation of this Contract by notice in writing to the Service Provider, informing him of the Employer's opinion and the grounds and reasons upon which it is based, and calling upon the Service Provider to show cause, in writing, within fourteen (14) days of receipt of the written notice why the Employer should not terminate this Contract on the grounds of the alleged breach(es) of Clause 6.4.1 of this Contract; and/or*

- b) *withhold all payments due; and/or*
- c) *terminate this Contract by notice in writing to the Service Provider, if the Service Provider fails to respond to the Employer's written response, to satisfy the Employer that his opinion is unfounded. Provided always that such termination shall not prejudice or affect any right of action or remedy, which shall have accrued or shall accrue thereafter to the Employer and provided also that the Employer may recover from the Service Provider such sum as the Employer deems equivalent to the amount or value of any such gift, consideration or commission.*

1.4.3 *In the event that the Employer, in good faith and on reasonable grounds, comes to the opinion that any contract with a Government or public sector body has been or was obtained by the Service Provider through actions that mutatis mutandis are similar in nature to those barred in terms of Clause 6.4.2 by the Service Provider or by anyone employed by the Service Provider or acting on the Service Provider's behalf in relation to such Contract, the Employer may:*

- a) *summarily suspend the operation of this Contract by notice in writing to the Service Provider, informing him of the Employer's opinion and the grounds and reasons upon which it is based, and calling upon the Service Provider to show cause, in writing within fourteen (14) days of receipt of the written notice why the Employer should not terminate this Contract on the grounds of the alleged breach(es) of Clause 6.4.1 of this contract; and/or*
- b) *withholds all payments due; and/or*
- c) *terminate this Contract by notice in writing to the Service Provider, if the Service Provider fails to respond to the Employer's written notice within the prescribed time, or fails, in his written response, to satisfy the Employer that this opinion is unfounded. Provided always that such termination shall not prejudice or affect any right of action or remedy, which shall have accrued or shall accrue thereafter to the Employer.*

2. SERVICE PROVIDER'S PERSONNEL

2.1 Provision of Personnel

2.1.1 The Service Provider shall provide appropriate Personnel for such time periods as required in terms of the Contract and shall enter all data pertaining to Personnel including titles, job descriptions, qualifications and estimated periods of engagement on the performance of the Services in the Personnel Schedule.

2.1.2 The Services shall be performed by the Personnel listed in the Personnel Schedule for the periods of time indicated therein. The Service Provider may, subject to the approval of the Employer, make such adjustments to the data provided in terms of Clause 7.1.1 above as may be appropriate to ensure the efficient performance of the Services, provided that the adjustments will not cause payments to exceed any limit placed on the Contract Price.

2.1.3 The Service Provider shall:

- a) forward to the Employer for approval, within 15 days of the award of the Contract, the Personnel Schedule and a timetable for the placement of Personnel.
- c) inform the Employer of the date of commencement and departure of each member of Personnel during the course of the Project.
- d) submit to the Employer for his approval a timely request for any proposed change to Personnel, or timetables.

2.2 Staff and equipment

2.2.1 The Service Provider shall employ and provide all qualified and experienced personnel required to perform the Services.

2.2.2 Where required in terms of the Contract, the Service Provider shall provide Key Persons as listed in the Contract Data to perform specific duties. If at any time, a particular Key Person cannot be made available, the Service Provider may engage a replacement who is equally or

better qualified to perform the stated duty, subject to the Employer's approval, which approval shall not be unreasonably withheld.

- 2.2.3 Where the Service Provider proposes to utilise a person not named in the Personnel Schedule, he shall submit the name, relevant qualifications and experience of the proposed replacement person to the Employer for approval.
- 2.2.4 Where the fees for the Services are time-based, the fee payable for a person provided as a replacement shall not exceed that which would have been payable to the person replaced.
- 2.2.5 Except in the case of replacement resulting from death or where the Employer requests a replacement not provided for by the Contract, the Service Provider shall bear all additional costs arising out of or incidental to such replacement.
- 2.2.6 The Service Provider shall take all measures necessary and shall provide all materials and equipment necessary to enable Personnel to perform their duties in an efficient manner.

2.3 Working hours, overtime and leave

Where the fee for the Services are time-based, working hours, leave entitlement and holidays for Personnel provided in terms of Clause 7 are to be as stated in the Contract Data, or, if not stated, to be determined by the Service Provider. The Employer will not be responsible for overtime payments to Personnel *unless so specifically provided for in the Pricing Schedule*.

3. COMMENCEMENT, COMPLETION, MODIFICATION SUSPENSION AND TERMINATION OF THE CONTRACT

3.1 Commencement

The effective date of the contract shall be the date of the Form of Acceptance. Contract shall come into effect on the date that it is signed by both Parties or such later date as may be stated in the Contract Data. The Service Provider shall commence the performance of the Services within thirty (30) days after the date that the Contract becomes effective, or such date as may be specified in the Contract Data.

3.2 Completion

- 3.2.1 Unless terminated in terms of the Contract, or otherwise specified in the Contract Data, the Contract shall be concluded when the Service Provider has completed all Deliverables in accordance with the Scope of Work.
- 3.2.2 The Service Provider, may request an extension to the Period of Performance if he is or will be delayed in completing the Contract by any of the following causes:
 - a) *variations to Services* ordered by the Employer.
 - b) failure of the Employer to fulfil his obligations under the Contract.
 - c) any delay in the performance of the Services which is not due to the Service Provider's default.
 - e) *Force Majeure*.
- 3.2.3 The Service Provider shall within 14 days of becoming aware that a delay may occur, notify the Employer of his intention to make a request for the extension of the Period of Performance to which he considers himself entitled and shall within 30 days thereafter deliver to the Employer full and detailed particulars of the request, in order that it may be investigated at the time.
- 3.2.4 The Employer shall, within 30 days of receipt of a detailed request, grant such extension to the Period of Performance as may be justified, either prospectively or retrospectively, or inform the Service Provider that he is not entitled to an extension. Should the Service Provider find the decision of the Employer to be unacceptable he shall, nevertheless, abide

by such decision in the performance of the services and the matter shall be dealt with as a dispute in terms of Clause 12.

3.3 Force Majeure

3.3.1 *In this clause "Force Majeure" means an exceptional event or circumstance:*

- a) *which is beyond party's control,*
- b) *which such a party could not reasonably have provided against before entering into the Contract,*
- c) *which, having arisen, such Party could not reasonably have avoided or overcome, and*
- d) *which is not substantially attributable to the other Party*

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below:

- i) *natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity*
- ii) *war, hostilities (whether war to be declared or not), invasion, act of foreign enemies,*
- iii) *rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war,*
- iv) *riot, commotion, disorder, strike or lockout by persons other than the Service Provider's Personnel or other employees of the Service Provider and Sub-contractors,*

An event or circumstance which is attributable to a wilful act, neglect or failure to take reasonable precautions by the affected party, his employees agents, sub-contractors or others shall, under no circumstances, be considered Force Majeure.

3.3.2 The failure of a Party to fulfil any of its obligations under the Contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of *Force Majeure*, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures in order to meet the terms and conditions of this Contract, and has *notified* the other Party within 10 days of its occurrence and within a reasonable time of *its estimated duration and consequences*. *Failure to so notify shall terminate that Party's right to release from his obligations.*

3.3.3 In the event that the performance of the Services has to be suspended on the grounds of *Force Majeure*, the time for completion shall be extended by the extent of the delay plus a reasonable period for the resumption of work or, if the speed of performing certain Services has to be reduced, the time for their completion shall be extended as may be necessary in the circumstances.

8.3.4 During the period of his inability to perform the Services as a result of an event of Force Majeure, the Service Provider shall be entitled to continue to be paid under the terms of the Contract and shall be reimbursed for additional costs reasonably and necessarily incurred by him in suspending, delaying and re-activating the performance of the Services.

8.3.5 *If the Force Majeure event continues for more than 90 (ninety) days, either Party shall have the right to terminate this Contract with immediate effect.*

8.4 Termination

8.4.1 The Employer may in addition to his rights under sub-clauses 6.4.2, 6.4.3 and 10.5 terminate the Contract by giving not less than thirty (30) days written notice thereof to the Service Provider after the occurrence of any of the following events:

- a) if the Service Provider does not remedy a failure in the performance of his obligations under the Contract within thirty (30) days after having been notified thereof, or within any further period as the Employer may have subsequently approved in writing;
- b) if the Service Provider becomes insolvent or bankrupt;
- c) if, as the result of *Force Majeure*, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days;
- d) *Committing an offence in terms of clauses 6.1 and/or 6.4;*

- e) *if the Service Provider acts in such a way, under this contract or any other contract with the Employer, that a statute relating to the combating of fraud, corruption, uncompetitive practice and the like can be invoked; or*
- f) *if the Employer, at any time in its sole discretion determines that it no longer requires the completion of the Service by the Service Provider."*

Upon delivery of such notice by the Service Provider he shall immediately vacate the site and deliver to the Employer all drawings, documents and papers relating to the Services and shall within fourteen (14) days after the date of termination submit an account for the Services satisfactorily performed prior to the date of notice. The Employer shall not be liable to the Service Provider for any loss of profit or damages suffered as a result of cancellation of the contract as contemplated in this clause.

8.4.2 The Service Provider may terminate the Contract, by giving not less than thirty (30) days written notice to the Employer after the occurrence of any of the following events:

- a) if the Employer fails to pay any monies due to the Service Provider in terms of the Contract and not subject to dispute pursuant to Clause 12 within forty-five (45) days after receiving written notice from the Service Provider that such payment is overdue; or
- b) if, as the result of *Force Majeure*, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- c) when the Services have been suspended under Clause 8.5 and the period of suspension exceeds 6 months, or it is clear to the Service Provider that it will be impossible or impractical to resume the suspended Services before the period of suspension has exceeded 6 months; or
- d) if the Employer is in material breach of a term of the Contract and fails to rectify such breach within 30 days of the receipt of written notice requiring him to do so.

8.4.3 Upon termination of this Contract pursuant to Clauses 8.4.1 or 8.4.2, the Employer shall make the following payments to the Service Provider:

- a) remuneration in terms of the Contract for Services satisfactorily performed prior to the effective date of termination *less any costs arising from termination.*
- b) except in the case of termination pursuant to events (a) and (b) of Clause 8.4.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract.

8.4.4 Should the Service Provider, being an individual or the last surviving principal of a partnership or body corporate, die or be prevented by illness or any other circumstances beyond his control from performing the obligations implied by the Contract, the Contract shall be terminated without prejudice to the accrued rights or either Party against the other.

8.4.5 *Where required in terms of the contract data the surety delivered by the Service Provider in terms of this Contract shall remain in force until the completion of the project.*

8.5 Suspension

8.5.1 The Employer may temporarily suspend all or part of the Services by notice to the Service Provider who shall immediately make arrangements to stop the performance of the Services and minimise further expenditure.

8.5.2 When Services are suspended, the Service Provider shall be entitled to pro-rata payment for the Services carried out and reimbursement of all reasonable cost incident to the prompt and orderly suspension of the Contract.

8.6 Rights and liabilities of the Parties

Completion, suspension or termination of the Contract shall not prejudice or affect the accrued rights or liabilities of the Parties.

4. OWNERSHIP OF DOCUMENTS AND COPYRIGHT

- 4.1 Copyright of all documents prepared by the Service Provider in accordance with the relevant provisions of the copyright Act (Act 98 of 1978) relating to Project shall be vested in the party named in the Contract Data. Where copyright is vested in the Service Provider, the Employer shall be entitled to use the documents or copy them only for the purposes for which they are intended in regard to the Project and need not obtain the Service Provider's permission to copy for such use. Where copyright is vested in the Employer, the Service Provider shall not be liable in any way for the use of any of the information other than as originally intended for the Project and the Employer hereby indemnifies the Service Provider against any claim which may be made against him by any party arising from the use of such documentation for other purposes.
- 4.2 The ownership of data and factual information collected by the Service Provider and paid for by the Employer shall, after payment by the Employer, lie with the Employer. This shall include intellectual property gained during the project and any research work, papers and presentations done using the Employer's resources and information.
- 4.3 The Employer shall have no right to use any documents prepared by the Service Provider whilst the payment of any fees and expenses due to the Service Provider in terms of the Contract is overdue.

5. SUCCESSION AND ASSIGNMENT

- 5.1 Except as defined in Clause 8.4.4 above, each Party binds itself and its partners, successors, executors, administrators, assigns and legal representatives to the other Party and to the other partners, successors, executors, administrators, assigns and legal representatives of the other Party in respect of all obligations and liabilities of the Contract.
- 5.2 An assignment including that of a sub-contractor, shall be valid only if it is a written agreement, by which the *Parties* transfer *their rights* and obligations under the Contract, or part thereof, to others.
- 5.3 The Service Provider shall not, without the prior written consent of the Employer, assign the Contract or any part thereof, or any benefit or interest there under, except in the following cases:
- a) by a charge in favour of the Service Provider's bankers of any monies due or to become due under the Contract; or
 - b) by assignment to the Service Provider's insurers of the Service Provider's right to obtain relief against any other person liable in cases where the insurers have discharged the Service Provider's loss or liability.
- 5.4 The approval of an assignment by the Employer shall not relieve the Service Provider of his obligations for the part of the Contract already performed or the part not assigned.
- 5.5 If the Service Provider has assigned his Contract or part thereof without authorization, the Employer may forthwith terminate the Contract.

6. SUB-CONTRACTING

- 6.1 A sub-contract shall be valid only if it is a written agreement by which the Service Provider entrusts performance of a part of the Services to others.
- 6.2 The Service Provider shall not sub-contract to nor engage a Sub-contractor to perform any part of the Services without the prior written authorization of the Employer. The services to be sub-contracted and the identity of the Sub-contractor shall be notified to the Employer. The Employer shall, within 14 days of receipt of the notification and a full motivation why such services are to be sub-contracted, notify the Service Provider of his decision, stating reasons, should he withhold such authorization, failing which the Sub-contractor shall be

deemed to be approved by the Employer. If the Service Provider enters into a sub-contract with a Sub-contractor without prior approval, the Employer may forthwith terminate the Contract.

- 6.3 The Employer shall have no contractual relationships with Sub-contractors. However, if a Sub-contractor is found by the Employer to be incompetent, the Employer may request the Service Provider either to provide a Sub-contractor with qualifications and experience acceptable to the Employer as a replacement, or to resume the performance of the relevant part of the Services himself.
- 6.4 The Service Provider shall advise the Employer without delay of the variation or termination of any sub-contract for performance of all or part of the Services.
- 6.5 The Service Provider shall be responsible for the acts, defaults and negligence of Sub-contractors and their agents or employees in the performance of the Services, as if they were the acts, defaults or negligence of the Service Provider, his agents or employees. Approval by the Employer of the sub-contracting of any part of the Contract or of the engagement by the Service Provider of Sub-contractors to perform any part of the Services shall not relieve the Service Provider of any of his obligations under the Contract.
- 6.6 *The Service Provider undertakes to pay the sub-contractor the full value as certified as being due in each interim monthly account. The Service Provider further undertakes to make payment within 7 (seven) days after payment by the Employer or by the 25th of the month following that in which the sub-contractor invoiced for the work, whichever date is earlier.*

7. RESOLUTION OF DISPUTES

7.1 Settlement

- 7.1.1 Any dispute between the Parties shall arise by either party presenting to the other in writing the nature of the dispute and the facts to be dealt with. The Parties shall negotiate in good faith with a view to settling any dispute or claim arising out of or relating to the Contract and may not initiate any further proceedings until either Party has, by written notice to the other, declared that such negotiations have failed.
- 7.1.2 Any dispute or claim arising out of or relating to the Contract which cannot be settled between the Parties shall in the first instance be referred by the Parties to either mediation or adjudication as provided for in the Contract Data.

7.2 Mediation

- 7.2.1 If the Contract Data does not provide for dispute resolution by adjudication, not earlier than ten working days after having advised the other Party, in terms of Clause 12.1, that negotiations in regard to a dispute have failed, an aggrieved Party may require that the dispute be referred, without legal representation, to mediation by a single mediator. The mediator shall be selected by agreement between the Parties, or, failing such agreement, by the person named for this purpose in the Contract Data. The costs of the mediation shall be borne equally by the Parties.
- 7.2.2 The mediator shall convene a hearing of the Parties and may hold separate discussions with any Party and shall assist the Parties in reaching a mutually acceptable settlement of their differences through means of reconciliation, interpretation, clarification, suggestion and advice. The Parties shall record such agreement in writing and thereafter they shall be bound by such agreement.
- 7.2.3 The mediator is authorised to end the mediation process whenever in his opinion further efforts at mediation would not contribute to a resolution of the dispute between the Parties and shall do so, if after a period of 90 (ninety) days from entering into the mediation process, no resolution has been achieved.

- 7.2.4 If either Party is dissatisfied with the opinion expressed by the mediator or should the mediation fail, then such Party may require that the dispute be referred to arbitration or litigation in a competent civil court, as provided for in the Contract *Data*; *provided that the dissatisfied Party notifies the other in writing* within 28 Days of mediator's decision being issued or the mediator declaring the mediation to have ended, as provided for in the Contract Data. Claims not brought within the time periods set out herein will be deemed to be waived.

7.3 Adjudication

- 7.3.1 If the Contract Data does not provide for dispute resolution by mediation, an aggrieved Party may refer the dispute to adjudication. Adjudication shall be in accordance with the latest edition of the separately published CIDB Adjudication Procedures.
- 7.3.2 The adjudicator shall be appointed in terms of the Adjudicator's Agreement bound in the Construction Industry Development Board's Adjudication Procedure.
- 7.3.3 The Adjudicator shall be any person agreed to by the parties or, failing such agreement, shall be nominated by the person named in the Contract Data. The Adjudicator shall be appointed in accordance with the Adjudicator's Agreement contained in the CIDB Adjudication Procedure.
- 7.3.4 If a Party is dissatisfied with the decision of the Adjudicator, the Party may give the other Party *written* notice of dissatisfaction within 28 days of the receipt of that decision and refer the dispute to arbitration or litigation in a competent civil court as provided for in the Contract Data. If notice of dissatisfaction is *not* given within the specified time, the decision shall be final and binding on the Parties.

7.4 Arbitration

- 7.4.1 Arbitration, where provided for in the Contract Data, shall be by a single arbitrator in accordance with the provisions of the Arbitration Act of 1965 as amended and shall be conducted in accordance with such procedure as may be agreed between the Parties or, failing such agreement, in accordance with the Rules for the Conduct of Arbitrations, current at the date of the contract, published by the Association or Arbitrators.
- 7.4.2 The arbitrator shall be mutually agreed upon or, failing agreement, to be nominated by the person named in the Contract Data.

8. LIABILITY

8.1 Liability of the Service Provider

- 8.1.1 The Service Provider shall be liable to the Employer arising out of or in connection with the Contract if a breach of Clause 5.1 is established against him.
- 8.1.2 The Service Provider shall correct a Defect on becoming aware of it. If the Service Provider does not correct a Defect within a reasonable time and the Defect arose from a failure of the Service Provider to comply with his obligation to provide the Services, the Service Provider shall pay to the Employer the amount which the latter assesses as being the cost of having such Defect corrected by Others.

8.2 Liability of the Employer

The Employer shall be liable to the Service Provider arising out of or in connection with the Contract if a breach of an obligation of his in terms of the Contract is established. The Service Provider shall have no separate delictual right of action against the Employer.

8.3 Compensation

If it is established that either Party is liable to the other, compensation shall be payable only on the following terms:

- a) Compensation shall be limited to the amount of reasonably foreseeable loss and damage suffered as a result of the breach.
- b) The compensation payable by either Party shall be reduced by the arbitrator/mediator/adjudicator to such extent as is deemed just and equitable having regard to the degree in which the other Party or any third party was at fault in relation to the loss or damage. The liability of the Parties is not joint and each Party shall only be liable for that proportion of the compensation which is attributable to his fault.
- c) In any event, the amount of compensation will be limited to the amount specified in Clause 13.5.

8.4 Duration of Liability

Notwithstanding the terms of the Prescription Act No. 68 of 1969 (as amended) or any other applicable statute of limitation neither the Employer nor the Service Provider shall be held liable for any loss or damage resulting from any occurrence unless a claim is formally made within the period stated in the Contract Data or, where no such period is stated, within a period of three years from the date of termination or completion of the Contract.

8.5 Limit of Compensation

8.5.1 The maximum amount of compensation payable by either Party to the other in respect of liability under the Contract is limited to:

- a) the sum insured in terms of 5.4. in respect of insurable event; or
- b) the sum stated in the Contract Data or, where no such amount is stated, to an amount *equal to twice the Contract Price (inclusive of VAT) payable to the Service Provider under the Contract.*

8.5.2 Each Party agrees to waive all claims against the other insofar as the aggregate of compensation which might otherwise be payable exceeds the aforesaid maximum amount payable.

8.5.3 If either Party makes a claim for compensation against the other Party and this is not established, the claimant shall reimburse the other for his reasonable costs incurred as a result of the claim or if proceedings are initiated in terms of Clause 12 for such costs as may be awarded.

8.6 Indemnity by the Employer

The Employer shall indemnify the Service Provider against all claims by third parties which arise out of or in connection with the performance of the Services save to the extent that such claims do not in the aggregate exceed the limit of compensation in Clause 13.5 or are covered by the insurances arranged under the terms of Clause 5.4.

8.7 Exceptions

8.7.1 Clauses 13.5 and 13.6 shall not apply to claims arising from deliberate misconduct.

8.7.2 The Service Provider shall have no liability whatsoever for actions, claims, losses or damages occasioned by:

- a) the Employer omitting to act on any recommendation, or overriding any act, decision or recommendation, of the Service Provider, or requiring the Service Provider to implement a decision or recommendation with which the Service Provider disagrees or on which he expresses a serious reservation; or
- b) the improper execution of the Service Provider's instructions by agents, employees or independent contractors of the Employer.

9. REMUNERATION AND REIMBURSEMENT OF SERVICE PROVIDER

The Employer shall remunerate and reimburse the Service Provider for the performance of the Services as set out in the Pricing Data *and Scope of Works*. If not otherwise stated in the Pricing Data, the following shall apply:

- 9.1 The Service Provider shall be entitled to render interim monthly accounts for fees and reimbursements throughout the duration of the Contract. Interim amounts of lump sum fees due *(or any specified fixed-progressed payments due that have been delayed by the acts of the Employer)* shall be based on progress.
- 9.2 Amounts due to the Service Provider shall be paid by the Employer within thirty (30) days of receipt by him of the relevant invoices. If the Service Provider does not receive payment by the due date, he shall be entitled to charge interest on the unpaid amount, which is payable by the Employer on receipt by him of the relevant invoice for interest, at the Prime overdraft rate plus 2% per annum, compounded monthly and calculated from the due date of payment.
- 9.3 If any item or part of an item in an invoice submitted by the Service Provider is disputed by the Employer, the latter shall, before the due date of payment, give notice thereof with reasons to the Service Provider, but shall not delay payment of the balance of the invoice. Clause 14.2 shall apply to disputed amounts which are finally determined to be payable to the Service Provider.
- 9.4 In respect of Services charged for on a time basis and all other reimbursable expenses the Service Provider shall maintain records in support of such charges and expenses for a period of six months after the completion or termination of the Contract. Within this period the Employer may, on not less than 14 days' notice, require that a reputable and independent firm of accountants, nominated by him at his expense, audit any claims made by the Service Provider for time charges and expenses by attending during normal working hours at the office where the records are maintained.
- 9.5 *All accounts presented for payment shall be according to the Employers prescribed format with proof of ITIS data capture and shall be submitted to the Employer electronically and when required, delivered in hard copy to the Employer's relevant regional office.*
- 9.6 *Payments due shall be subject to the deduction of retention monies as stated in the Contract Data. The retention monies so deducted shall be released in accordance with the phases and conditions stated in the Contract Data.*
- 9.7 *If applicable, Contract Price Adjustment will be paid according to the method stated in the Contract Data.*

C1.2.2 CONTRACT DATA – INFORMATION PROVIDED BY THE EMPLOYER

CLAUSE NO	CONTRACT DATA
1	<div>1. The Employer is the South African National Roads Agency SOC Limited (SANRAL).</div> <div>2. The Employer's domicilium citandi et executandi (permanent physical business address) is: 48 Tambotie Avenue VAL DE GRACE 0184</div>
	<div>The authorised and designated representative of the Employer is:</div> <div><div>Name</div><div>Procurement Office</div><div>Telephone</div><div>(012) 426 6200</div><div>Facsimile</div><div>(012) 348 0883</div><div>E-mail address</div><div>ProcurementNR3@sanral.co.za</div></div>
3.4	<div>The address for receipt of communications is:</div> <div><div><div>Postal</div><div>Private X17</div><div>Lynnwood ridge</div><div>0040</div></div><div>or</div><div><div>Delivery</div><div>38 Ida street</div><div>Menlo Park</div><div>0081</div></div></div>
3.5	<div>1. The project is Consulting Engineering Services for THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20</div> <div>2. The location for the performance of the Project is Mpumalanga Province, Nkangala District Municipality, Thembisile Hani Local Municipality, Access Roads adjacent to R.573 Section 2 between km 27.4 to km 36.2.</div>
3.6	The Service Provider may only release public or media statements or publish material related to the Services or Project subject to the approval of the Employer.
3.11.1	<div>The penalty payable for poor performance will be applied over the full-time duration of the Contract. Penalty charges shall be as follows:</div> <div><div>a)</div><div>Failure to meet milestone dates in the Project Programme is R 1 000.00 per day (excluding VAT) subject to a maximum of 10% of the Contract Value (excluding all Prime Cost and Provisional Sums).</div><div>b)</div><div>Failure to disclose Sub-contractors is up to 10% of the Contract value.</div><div>c)</div><div>Failure to meet the specified target of work for Targeted Enterprises is 30% of the value by which the cumulative value of payments to the Targeted Enterprises fails to meet the specified percentage.</div></div>
3.14	The Project Programme shall be submitted within 14 days of the award of the Contract.
5.1.7	The amount of work expressed as a percentage of the tendered contract value (incl VAT, excl provisional and prime cost sums and the respective tendered mark-up (if any), but including provision made for site supervision staff (payment item 3.7.4(a) and (b))) that will be undertaken by a Targeted Enterprise(s) selected by the Service

	<p>Provider, shall be 30% (thirty percent).</p> <p>1. Targeted Enterprises from the Province in which the project is located shall participate in a minimum of $\frac{1}{3}$ (one-third) of the specified requirement.</p>
5.4	<p>The Service Provider is required to provide the Service with all reasonable care, diligence and skill in accordance with generally accepted professional techniques and standards.</p>
	<p>The Service Provider is required to provide the following insurances:</p> <p>a) Insurance against Professional indemnity Cover is: R 3 million without a limit on the number of claims. The limit of liability is only provided to cover the Employer's damages and does not allow for the Service Provider's costs for defending any claim.</p> <p>Period of cover: Structures – 25 years: all other instances – 10 years</p> <p>b) Insurance against Public Liability Cover is: R 5 million Period of cover: Structures – 25 years: all other instances – 10 years</p> <p>c) Third Party Liability Cover is: R 3 million Period of cover: Duration of contract only.</p>
5.5	<p>The Service Provider is required to obtain the Employer's prior approval in writing before taking any of the following actions:</p> <p>a) Appointing Key Personnel not listed by name in the Contract Data.</p> <p>b) Appointing sub-contractors for the performance of any part of the Service.</p> <p>c) Expending any Prime Cost and/or Provisional Sum in the Contract or Training and Development Works Contract.</p> <p>d) Authorising any work under a Variation (Works Authorisation) for the Training and Development Works Contract.</p> <p>e) Authorising any work outside the Contract limits.</p> <p>f) Over-expenditure on the Training and Development Works Contract.</p> <p>g) Changing the scope of work for the Training and Development Works Contract.</p> <p>h) Acceptance of sub-standard work and/or reduced payments under the Training and Development Works Contract.</p> <p>i) All requirements in the relevant documents listed in Clause C3.1.6.</p> <p>j) Making statements to the media regarding the project.</p>
5.9	<p>The provision of a Performance Security will not be required under this Contract.</p>
7.2	<p>The Key Persons required for this project are:</p> <p>a) Contract Engineer</p> <p>b) Design Specialist (Pavement and Material)</p>

7.3	<p>The working hours and holiday for site staff are:</p> <ol style="list-style-type: none"> site working hours; and annual leave shall be taken during the recognized construction industry shutdown period.
8.1	<ol style="list-style-type: none"> The effective date of the contract shall be the date of the Form of Acceptance. The time to commence the performance of the Services is 8 (eight) calendar days after the date that the Contract becomes effective.
8.2	The Contract is concluded on the date when the Service Provider has completed all deliverables in accordance with the Scope of Work.
9.1	Copyright of documents prepared for the Project shall be vested with the Employer.
11.2	<ol style="list-style-type: none"> The Service Provider shall not sub-contract more than 25% of the tendered contract value (including value of work allocated to Targeted Enterprise(s), but excluding any services specified in the Scope of Works to be procured under a Provisional Sum through the Employer's Supply Chain Procurement process) to any other enterprise that does not have an equal or higher B-BBEE contributor level, unless the intended sub-contractor(s) is an EME that has the capability and ability to execute the sub-contract. The Targeted Enterprise(s) shall not be allowed to sub-contract any work that forms part of the specified participation percentage without the Employer's approval. All Targeted Enterprise(s) and/or sub-contractor(s) shall be registered on the National Treasury's Central Supplier Database (CSD) The Service Provider shall disclose all subcontracting arrangements. If the Service Provider fails to disclose, he shall be given 14 days to make representation as to why: <ol style="list-style-type: none"> the contract shall not be terminated; the Service Provider shall not be penalised up to 10% of the value of the contract.
12.	<ol style="list-style-type: none"> Interim settlement of disputes is to be by mediation. Final settlement is by litigation. If the parties fail to agree on a mediator, the mediator is to be nominated by the President of the South African Institution of Civil Engineering.
13.4	Neither the Employer nor the Service Provider is liable for any loss or damage resulting from any occurrence unless a claim is formally made within 36 months from the date of termination or completion of the Contract.
13.5	The maximum amount of compensation payable by either Party to the other in respect of liability under the Contract is limited to R 3 million.
14.6	<ol style="list-style-type: none"> Retention monies shall be 10% of the value of completed works up to a maximum of R150 000.00 (excluding VAT). Such retention monies shall be released by the Employer as follows: <ol style="list-style-type: none"> 60% on receipt of approved draft Contract Report and As-built material

	<p>records and drawings within 3 (three) months of issue of the Taking-over Certificates of the Training and Development Works Contract.</p> <p>b) 40% on receipt of approved final copies of the above within 1 (one) month of the issue of the Performance Certificate for the Training and Development Works Contract.</p>
14.7	<p>1. Contract Price Adjustment: Refer to pricing instructions in clause C2.1.6 of the pricing schedule.</p> <p>2. Base date shall be the date 28 days prior to the latest date for submission of tenders.</p> <p>3. Base date for this contract is November 2022.</p>

C1.2.3 CONTRACT DATA – INFORMATION PROVIDED BY THE TENDERER

A: CONTACT DETAIL

Name of Service Provider	
Address	
Telephone	
Facsimile	
Authorised and designated representative	
Postal address for receipt of communication	
Telephone	
Facsimile	
E-mail address	

B: KEY PERSONS

Key Persons	Name	Indicate whether permanent or not permanent*
Contract Engineer		
Design Specialist (Pavement and Materials)		
Alternate to Contract Engineer		
Alternate to Design Specialist (Pavement and Materials)		

* Attach letter confirming permanent or contract employment / signed letter of consent.

C: INFORMATION REQUIRED FOR THE PUBLICATION OF AWARD AS PER NATIONAL TREASURY NOTE

Name of Partners, Members or Directors	Appointment Date	Designation	Professional Registration Number

**C1.3.2 AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
(ACT NO 85 OF 1993) AND CONSTRUCTION REGULATIONS 2014**

This AGREEMENT made at
on this the day of in the year
between THE SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED (hereinafter called "the
Employer") on the one part, herein represented by **(Insert name)**
in his capacity as **(insert title)**
and delegate of the Employer in terms of the Employer's standard powers of delegation pursuant to
the provisions of Act No. 7 of 1998, and
(hereinafter called "the Mandatary") on the other part, herein represented by
.....
in his capacity as

WHEREAS the Employer is desirous that certain works be designed, viz **CONTRACT SANRAL
C.002-025-2018/1S : CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND
MONITORING OF A COMMUNITY DEVELOPMENT AND SMALL CONTRACTOR TRAINING AND
DEVELOPMENT ON ACCESS ROADS IN AND NEAR KWAGGAFONTEIN BKWAGGAFONTEIN
BKWAGGAFONTEIN B**

and has accepted a tender by the Mandatary for the design and construction supervision of such
works and has appointed the Mandatary in terms of Regulation 5(5) of the Construction Regulations
2014, and whereas the Employer and the Mandatary have agreed to certain arrangements and
procedures to be followed in order to ensure compliance by the Mandatary with the provisions of the
Occupational Health and Safety Act 1993 (Act 85 of 1993);

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. The Mandatary shall execute the work in accordance with the contract documents
pertaining to this contract.
2. This Agreement shall hold good from its commencement date, to either:
 - a) the date of the construction contract Performance Certificate issued in terms of
sub-clause 11.9 of the Conditions of Contract for Construction for Building and
Engineering Works designed by the Employer (1999) published by Federation
Internationale des Ingenieurs-Conseils (FIDIC), as contained in Volume 1 of the
contract documents pertaining to this contract, or
 - b) the date of termination of this contract in terms of Clause 8 of the CIDB's Standard
Conditions of Contract for Professional Services.
3. The Mandatary declares himself to be conversant with the following:
 - c) All the requirements, regulations and standards of the Occupational Health and
Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its
amendments and with special reference to the following Sections of The Act.

- i) Section 8: General duties of employers to their employees.
 - ii) Section 9: General duties of employers and self-employed persons to persons other than employees.
 - iii) Section 37: Acts or omissions by employees or mandataries and
 - iv) Sub-section 37(2) relating to the purpose and meaning of this Agreement.
 - b) The procedures and safety rules of the Employer as pertaining to the Mandatary and to all his sub-Service Providers.
4. In addition to the requirements of the agreed contract, the Mandatary further agrees to strictly adhere to his duties and responsibilities as set out in Regulation 6 of the Construction Regulations 2014.
5. The Mandatary is responsible for the compliance with the Act by all his sub-Service Providers, whether or not nominated and/or approved by the Employer.
6. The Mandatary warrants that all his and his sub-Service Provider's' employees are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993, which cover shall remain in force whilst any such employees are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
7. The Mandatary undertakes to ensure that he and/or his sub-Service Providers and/or their respective employees will at all times comply with the following conditions:
- a) The Mandatary shall assume the responsibility in terms of Section 16.1 of The Act. The Mandatary shall not delegate any duty in terms of Section 16.2 of The Act without the prior written approval of the Employer. If the Mandatary obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
 - b) All incidents referred to in Section 24 of The Act shall be reported by the Mandatary to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
 - c) The Employer hereby obtains an interest in the issue of any formal enquiry conducted in terms of section 32 of The Act into any incident involving the Mandatary and/or his employees and/or its sub-Service Providers.

In witness thereof, the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

SIGNED FOR AND ON BEHALF OF EMPLOYER:

WITNESS 1:

NAME (IN CAPITALS)

WITNESS 2:

NAME (IN CAPITALS)

SIGNED FOR AND ON BEHALF OF THE MANDATARY

WITNESS 1:

NAME (IN CAPITALS):

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED
CONTRACT SANRAL C.002-025-2018/1S
CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY
DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL
ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

WITNESS 2:

NAME (IN CAPITALS)

PART C2: PRICING DATA

PART C2: PRICING DATA

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C2.1 PRICING INSTRUCTIONS

C2.1.1 For the purposes of this Pricing Schedule, the following words shall have the meanings hereby assigned to them.

Unit:	The unit of measurement for each item of work as defined in the Scope of Works.
Quantity:	The number of units of work for each item as provided by the Employer or as tendered by the Service Provider.
Rate:	The payment per unit of work for which a rate has been provided by the Employer or for which the Service Provider tenders to do the work.
Amount:	The product of the quantity and the rate tendered for an item.
Lump Sum:	An amount tendered for an item, the extent of which is described in the Pricing Schedule, the Scope of Work or elsewhere, but of which the quantity of work is not measured in units.
Provisional Sum:	An amount allowed for in the Pricing Schedule, for which the quantity of work is not known.
Prime Cost:	Is a specific type of Provisional Sum where payment is made on the production of invoices showing the cost price of the implementation or installation of the service required. Services rendered in this manner carry a cost for which a rate or a lump sum is offered at tender stage to cover all the tenderer's handling, supervision and liability costs in providing the item or services.

C2.1.2 The quantities provided by the Employer in the Pricing Schedule are only approximate quantities. The quantities of work finally accepted and certified for payment, and not the quantities given in the Pricing Schedule, will be used to determine payments to the Service Provider.

The validity of the Contract shall in no way be affected by differences between the quantities in the Pricing Schedule and the quantities finally certified for payment. Work is valued at the rates or lump sums tendered.

C2.1.3 Rates and lump sums shall include full compensation for overheads, profits, incidentals, tax (other than VAT), etc., and for the completed items of work as specified in the Scope of Works and Contract Data and for all the risks, obligations and responsibilities specified in the General Conditions of Contract or Special Conditions of Contract, except in so far as the quantities given in the Pricing Schedule are only approximate.

C2.1.4 The Tenderer shall fill in a quantity or a rate or a lump sum for each item where provision is made. Items against which no rate or lump sum has been entered in the tender will not be paid for when the work is executed, as payment for such work will be regarded as being covered by other rates or lump sums in the pricing schedule.

The Tenderer shall fill in a rate against all items where the words "rate only" appears in the amount column. Although no work is foreseen under such item and no quantities are consequently given in the quantity column, the tendered rate shall apply should work under this item be required. Tenders should note the provisions of clause C2.1.10 of this preamble.

The tendered lump sums and rates shall be valid irrespective of any change in the quantities during the execution of the contract.

C2.1.5 The short descriptions of the payment items in the Pricing Schedule are only given to identify the items and to provide specific details. Reference shall, *inter alia*, be made to the Contract Data, General Conditions of Contract and Particular/Special Conditions of Contract and

Scope of Works for more detailed information regarding the extent of work entailed under each item.

C2.1.6 Where so indicated under measurement and payment, prices or rates will be subject to adjustment for escalation as provided for below:

- a) The prices or rates shall be fixed for the first 12-month period determined from the tender base date and no change during this period will be allowed for escalation.
- b) On the 12-month anniversary date of the Contract base date the rates or sums shall be adjusted by the 12-month year on year CPI index (as published in the monthly bulletin PO141. of Statistics South Africa under table B) and fixed at this value for the following 12-month period. Subsequent 12-month periods shall be dealt with on the same basis.
- c) Adjustment of lump sum prices for escalation shall only be applicable to that portion of the relevant Service which is incomplete at the end of the 12-month anniversary date and shall not be applicable to any progress payments already claimed.

Adjustment for escalation shall only be applicable for services or portions thereof, that are still within the prescribed programme and any approved extensions of time.

C2.1.7 Interim payments for lump sum payment items may be permitted. Such interim payments shall however be limited to proven progress achieved for that service deliverable. The sum of any progress payments made under a lump sum payment item shall be deducted prior to calculating any adjustments for escalation as described in clause C2.1.6 above.

C2.1.8 Provisional and Prime Cost Sums: Each Sum shall only be used, in whole or in part, in accordance with the Employer's instructions and the Contract Price shall be adjusted accordingly. The total sum paid to the Service Provider shall include only such amounts, for the work, supplies or services to which the Sum relates, as the Employer shall have instructed.

For each Sum, the Employer may instruct plant, materials or services to be procured by the Service Provider in accordance with the Employer's policies, and for which there shall be included in the Contract Price:

- a) The actual amounts paid (or due to be paid) by the Service Provider under the Sum, and
- b) An item for compilation and printing of procurement documentation, quotation/tender process and evaluation, and all overhead charges and profit, tendered in the Pricing Schedule. Provided that for Prime Cost Sums only, where a percentage mark-up or lump sum mark-up is tendered, which shall exclude profit.

The Service Provider shall produce all quotations, invoices, vouchers and accounts or receipts in substantiation of any claim under a Sum.

Any percentage adjustment or lump sum mark-up against the Sum for handling fee, profits, etc. shall not be negative.

C2.1.9. Subject to the conditions stated in Clause C2.1.10 below, the rates and lump sums filled in by the tenderer in the pricing schedule shall be final and binding and may not be adjusted should there be any mistakes in the extensions thereof and in the total sums appearing in the tender. Should there be any discrepancies between the tender sum and the correctly extended and totalled pricing schedule, the rates and the lump sums will be regarded as being correct, and the Employer shall have the right to adjust the tender sum to reconcile the tender sum with the total of the pricing schedule. In such an event, the Tenderer will be consulted but, failing agreement between the parties, the decision of the Employer shall be final and binding. Adjustment of the tender sum will take place prior to the signing of the contract. In their own interest tenderers must make doubly sure of the correctness of their tendered rates and lump sums, the extensions and the tender sum.

- C2.1.10 A tender shall be deemed non-responsive if the unit rates or lump sums for some of the items in the Pricing Schedule are, in the opinion of the Employer, unreasonable or out of proportion, and if the Tenderer fails, within a period of seven (7) days of having been notified in writing by the Employer to adjust the unit rates or lump sums for such items, to make such adjustments.
- C2.1.11 All rates and sums of money quoted in the Pricing Schedule shall be in South African Rand and whole cents.
- C2.1.12 The item numbers appearing in the Pricing Schedule refer to the corresponding item numbers in the Scope of Work.

C2.2 PRICING SCHEDULE (INCORPORATING SBD3)

Item No.	Description	Unit	Quantity	Rate	Amount (R)
3.2	PROJECT ASSESSMENT STAGE	-	-	-	-
3.2.1	Initial Assessment	-	-	-	-
-	(a) Initial Assessment	Lump Sum			
-	(b) Disbursements	Lump Sum			-
3.2.2	Visual Survey	-	-	-	-
-	(a) Visual survey	Lump Sum			
-	(b) Disbursements	Lump Sum			-
3.2.3	Project Assessment Report	-	-	-	-
-	(a) Project assessment report	Lump Sum			
-	(b) Disbursements	Lump Sum			-
-	TOTAL CARRIED FORWARD TO SUMMARY				
3.3	DESIGN DEVELOPMENT INVESTIGATIONS	-	-	-	-
3.3.1	Survey Services	-	-	-	-
-	(a) Survey Services when procured by Service Provider	Prime Cost			-
-	(b) Cost for procuring and managing sub-service provider under sub-item 3.3.1(a)	Lump Sum			-
-	(c) Cost when making use of SANRAL's Property Service Providers	Lump Sum			-
3.3.2	Traffic Monitoring Services	-	-	-	-
-	(a) Traffic monitoring services when procured by Service Provider	Prime Cost			-
-	(b) Cost for procuring and managing sub-service provider under sub-item 3.3.2(a)	Lump Sum			-
-	(c) Cost when making use of SANRAL's Traffic Monitoring Service Provider (TMSP)	Lump Sum			-
3.3.3	Environmental Services	-	-	-	-
-	(a) Environmental services during design stage	Prime Cost			
-	(b) Cost for procuring and managing sub-service provider under sub-item 3.3.3(a)	Lump Sum			
3.3.4	Geotechnical and Drilling Services	-	-	-	-
-	(a) Geotechnical and/or Drilling investigations	Prime Cost			
-	(b) Handling costs for planning, procuring	Lump Sum			

Item No.	Description	Unit	Quantity	Rate	Amount (R)
	geotechnical and/or drilling services i.r.o. item 3.3.4(a)				
-	(c) Administration and monitoring of the geotechnical and/or drilling contract by the Engineer	Month			
-	(d) Supervision of the work	-			
-	(i) Full time supervision	Prov. Sum			
-	(ii) Engineering Geologist for logging of cores and profiling of test pits	Month			
-	(iii) Accommodation costs	Prov. Sum			
-	(iv) Occupational Health and Safety obligations (continuous compliance and monthly audits)	Month			
-	(e) Geotechnical and drilling contract	-			
-	(i) Geotechnical and drilling contractor	Prime Cost			
-	(ii) Handling cost for planning, procuring geotechnical and drilling contractor i.r.o item 3.3.4(e)(i)	Lump Sum			
3.3.5	Pavement Investigation and Sampling	-	-	-	-
-	(a) Establishment of personnel and equipment for test pitting	Lump Sum			
-	(b) Pavement test pit, sampling and profiling	Number			
-	(c) Dynamic Cone Penetration (DCP)	Number			
-	(d) Cores in asphalt layers (100/150mm dia)	Number			
-	(e) Cores in concrete layers (100/150mm dia)	Number			
-	(f) Transport of samples to laboratory:	-			
-	(i) Large bags	Number			
-	(ii) Small bags or cores	Number			
3.3.6	Laboratory Testing and Reporting	-			
-	(a) Standard tests	-	-	-	-
-	(i) In-situ density	Number			
-	(ii) Moisture content	Number			
-	(iii) Sieve analysis	Number			
-	(iv) Atterberg limits	Number			
-	(v) M.D.D + OMC (Mod AASHTO) natural	Number			
-	(vi) M.D.D + OMC (Mod.AASHTO) stab.	Number			

Item No.	Description	Unit	Quantity	Rate	Amount (R)
-	(vii) — CBR	Number			
-	(viii) — ITS (stabilised) (set of 3)	Number			
-	(ix) — UCS (stabilised) (set of 3)	Number			
-	(x) — PH value	Number			
-	(xi) — Wet/dry durability (150mm) (set of 3)	Number			
-	(xii) — Initial consumption lime/cement (ICL)	Number			
-	(xiii) — Ethylene glycol Durability Index	Number			
-	(xiv) — ACV	Number			
-	(xv) — 10% FACT (dry)	Number			
-	(xvi) — 10% Fact (wet)	Number			
-	(xvii) — 10% Fact (ethylene glycol)	Number			
-	(xviii) — Aggregate grading	Number			
-	(xix) — Aggregate Flakiness Index	Number			
-	(xx) — Aggregate Average Least Dimension	Number			
-	(xxi) — Polished Stone Value	Number			
-	(xxii) — Sand Equivalent	Number			
-	(xxiii) — Bitumen content and grading	Number			
-	(xxiv) — Asphalt void content (cores)	Number			
-	(xxv) — Binder recovery (Absom)	Number			
-	(xxvi) — Bitumen penetration	Number			
-	(xxvii) — Bitumen softening point	Number			
-	(xxviii) — Sand Patch	Number			
-	(b) — Laboratory testing where no schedule is available, or specialised testing	Prime Cost			
-	(c) — Handling costs i.r.o. pay item 3.3.6(b)	Percentage (%)			
	TOTAL CARRIED FORWARD TO SUMMARY				
3.4	DESIGN DEVELOPMENT STAGE				
3.4.1	Concept Design	-			
-	(a) — Road works	Lump Sum			
-	(b) — Structures	Lump Sum			
-	(c) — Electrical	Lump Sum			
-	(d) — Buildings	Lump Sum			

Item No.	Description	Unit	Quantity	Rate	Amount (R)
-	(e) Mechanical	Lump Sum			
-	(f) Other	Lump Sum			
3.4.2	Preliminary Design	-			
-	(a) Road works	Lump Sum			
-	(b) Structures	Lump Sum			
-	(c) Electrical	Lump Sum			
-	(d) Buildings	Lump Sum			
-	(e) Mechanical	Lump Sum			
-	(f) Other	Lump Sum			
3.4.3	Detailed Design	-			
-	(a) Road works	Lump Sum			
-	(b) Structures	Lump Sum			
-	(c) Electrical	Lump Sum			
-	(d) Buildings	Lump Sum			
-	(e) Mechanical	Lump Sum			
-	(f) Other	Lump Sum			
3.4.4	Disbursements	-			
-	(a) Concept design	Lump Sum			
-	(b) Preliminary design	Lump Sum			
-	(c) Detailed design	Lump Sum			
3.4.5	Land Requirements	-			
-	(a) Compilation of Property Report for each individual property (or portion thereof) required	Number			
-	(b) Conclusion of SPLUMA Agreement with relevant Municipality(ies)	Number			
-	(c) Conclusion of addenda to the SPLUMA Agreement(s)	Number			
3.4.6	Road Safety Audit: Feasibility and/or Preliminary and/or Detail	-			
-	(a) Road Safety Audit	Prime Cost			
-	(b) Handling costs i.r.o. sub item 3.4.6(a)	Lump Sum			
3.4.7	Road Safety Audit: Construction and/or Pre-opening	-			
-	(a) Road Safety Audit	Prime Cost			
-	(b) Handling costs i.r.o. sub item 3.4.7(a)	Lump Sum			
3.4.8	Occupational Health and Safety	Lump Sum			

Item No.	Description	Unit	Quantity	Rate	Amount (R)
	requirements				
3.4.9	Training	-			
-	(a) Service Provider's staff and Targeted Enterprises	-			
-	(i) Assistant Project Leader (APL)	Prov. Sum			
-	(ii) Assistant Design Specialist(s) (ADS)	Prov. Sum			
-	(iii) Disbursements	Prime Cost			
	(b) Employer's Trainees	-			
	(i) Candidate engineers	Person Month			
	(ii) Students experiential training	Person Month			
	(iii) Student stipend	Prov. Sum			
3.4.10	Phase or Stage Discontinuity	-			
	(a) Review of previous phase or stage	Lump Sum			
	(b) Review of tender documentation by original Designer	Prime Cost			
	(c) Visit to construction site by original Designer	Prime Cost			
	(d) Handling cost i.r.o. sub-items 3.4.10(b) and 3.4.10(c)	Percentage (%)			
3.4.11	Field work for identification of material sources by Service Provider	-			
	(a) Personnel cost	Prov. Sum			
	(b) Disbursements	Prime Cost			
	(c) Handling cost i.r.o. sub-item 3.4.11(b)	Percentage (%)			
3.4.12	Investigation and sampling for roadbed, borrow pits, quarries, structure founding materials and other areas, e.g. Cuttings	-			
	(a) Establishment of personnel and equipment for test pitting	Lump Sum			
	(b) Hire and operation of excavator	Prime Cost			
	(c) Handling costs in respect of 3.4.12(b)	Percentage (%)			
	(d) Test pit excavation by hand	Number			
	(e) Sampling and profiling of test pits	Number			
	(f) DCP	Number			
	(g) Transport of samples to laboratory	-			
	(i) Large bags	Number			

Item No.	Description	Unit	Quantity	Rate	Amount (R)
-	(ii) Small bags	Number			
3.4.13	Laboratory Testing and Reporting	-			
-	(a) Standard tests	-			
-	(i) In-situ density	Number			
-	(ii) Moisture content	Number			
-	(iii) Sieve analysis	Number			
-	(iv) Atterberg limits	Number			
-	(v) M.D.D + OMC (Mod AASHTO) natural	Number			
-	(vi) M.D.D + OMC (Mod.AASHTO) stab.	Number			
-	(vii) CBR	Number			
-	(viii) ITS (stabilised) (set of 3)	Number			
-	(ix) UCS (stabilised) (set of 3)	Number			
-	(x) PH value	Number			
-	(xi) Wet/dry durability (150mm) (set of 3)	Number			
-	(xii) Initial consumption lime/cement (ICL)	Number			
-	(xiii) Ethylene glycol Durability Index	Number			
-	(xiv) ACV	Number			
-	(xv) 10% FACT (dry)	Number			
-	(xvi) 10% Fact (wet)	Number			
-	(xvii) 10% Fact (ethylene glycol)	Number			
-	(xviii) Aggregate grading	Number			
-	(xix) Aggregate Flakiness Index	Number			
-	(xx) Aggregate Average Least Dimension	Number			
-	(xxi) Polished Stone Value	Number			
-	(xxii) Sand Equivalent	Number			
-	(xxiii) Bitumen content and grading	Number			
-	(xxiv) Asphalt void content (cores)	Number			
-	(xxv) Binder recovery (Absom)	Number			
-	(xxvi) Bitumen penetration	Number			
-	(xxvii) Bitumen softening point	Number			
-	(xxviii) Sand Patch	Number			

Item No.	Description	Unit	Quantity	Rate	Amount (R)
-	(b) Laboratory Testing where no schedule is available, or specialised testing	Prime Cost			
-	(c) Handling costs i.r.o. pay item 3.4.13(b)	Percentage (%)			
3.4.14	Protection, removal, realignment and replacement of services prior to construction phase	-			
-	(a) Services	Prime Cost			
-	(b) Handling costs i.r.o. pay item 3.4.14(a)	Percentage (%)			
3.4.15	Employer's Gateway Review Process	Lump Sum			
TOTAL CARRIED FORWARD TO SUMMARY					
3.5	TENDER DOCUMENTATION	-			
3.5.1	Tender Documentation	-			
-	(a) Preparation of tender documentation	Lump Sum			
-	(b) Disbursements	Lump Sum			
-	(c) Tender Documents on CD/DVD	Number			
TOTAL CARRIED FORWARD TO SUMMARY					
3.6	CLARIFICATION MEETING, TENDER PERIOD AND TENDER EVALUATION	-			
3.6.1	Clarification Meeting and Tender Period	-			
-	(a) Service Provider's cost	Lump Sum			
-	(b) Hiring of venue, providing refreshments and coach (if required)	Prime Cost			
-	(c) Handling costs i.r.o. pay item 3.6.1(b)	Percentage (%)			
3.6.2	Tender Evaluation	-			
-	(a) Tender evaluation and report	Lump Sum			
-	(b) Disbursements	Lump Sum			
3.6.3	Preparation of Training and Development Works Contract Documents	Lump Sum			
-	TOTAL CARRIED FORWARD TO SUMMARY				
3.7	ADMINISTRATION AND MONITORING OF THE TRAINING AND DEVELOPMENT WORKS CONTRACT				
3.7.1	Administration and Monitoring of the Works Contract				
	(a) Road works:	Lump Sum			
	(b) Structures	Lump Sum			
	(c) Electrical	Lump Sum			

Item No.	Description	Unit	Quantity	Rate	Amount (R)
	(d) Buildings	Lump Sum			
	(e) Mechanical	Lump Sum			
	(f) Other	Lump Sum			
	(g) Disbursements	Month			
	(h) Administration and Monitoring of the Works Contract for extended Works Contract period from the original Employer's estimate	Month			
	(i) Administration and Monitoring of the Works Contract for prolonged site stoppages not under the control of the Employer	Month			
	(j) Training of Service Provider's staff and Targeted Enterprises:				
	(i) Assistant Contract Engineer	Prov. Sum			
	(ii) Disbursements	Prime Cost			
3.7.2	Occupational Health and Safety Obligations				
	(a) Continuous compliance and monthly internal audits	Month			
	(b) External site audits	Prov. Sum			
	(c) Handling costs i.r.o. pay item 3.7.2 (b)	Percentage (%)			
3.7.3	Establishment of Supervisory Personnel on Site				
	(a) Relocation costs of individual site personnel	Prime Cost			
	(b) Handling costs i.r.o. sub item 3.7.3(a)	Percentage (%)			
	(c) Establishment of office equipment	Lump Sum			
3.7.4	Provision of Supervisory Staff and Equipment				
	(a) Site supervision staff	Prov. Sum			
	(b) Mark up i.r.o sub item 3.7.4 (a)	Percentage (%)			
	(c) Surveyor and assistants	Prime Cost			
	(d) Handling costs i.r.o. sub item 3.7.4(c)	Percentage (%)			
	(e) Provision and monthly cost of office equipment	Month			
	(f) Project Liaison Officer (PLO)	Prov.Sum			
	(g) Mark up i.r.o sub item 3.7.4 (f)	Percentage (%)			
	(h) Accommodation for supervisory staff	Prov. Sum			

Item No.	Description	Unit	Quantity	Rate	Amount (R)
	(i) Mark up i.r.o sub item 3.7.4 (h)	Percentage (%)			
3.7.5	Training				
	(a) Employer's candidate engineers	Person Month			
	(b) Students (engineering or surveying) receiving experiential training	Person Month			
	(c) Student stipend	Prov. Sum			
3.7.6	Transport for Site Supervisory Staff and for Additional Services				
	(a) Travelling to perform duties	Prov. Sum			
	(b) Mark up i.r.o sub item 3.7.6 (a)	Percentage (%)			
	(c) Toll fees	Prime Cost			
3.7.7	Assistance at Clarification Meeting, Tender Period and Tender Evaluation of Sub-contract Packages				
	(a) Service Provider's cost	Number			
	(b) Tender Evaluation	Number			
	(c) Evaluation Report	Number			
3.7.8	Environmental Services During Construction Phase				
	(a) Environmental services	Prime Cost			
	(b) Cost for procuring and managing sub-service provider under sub-item 3.7.8(a)	Lump Sum			
	TOTAL CARRIED FORWARD TO SUMMARY				
3.8	ADDITIONAL DUTIES, SPECIAL SERVICES AND SPECIALIST ADVICE				
3.8.1	Additional Duties by Service Provider				
	(a) Personnel cost				
	(i) Category A	Hour		R1 980,00	
	(ii) Category B	Hour		R1 780,00	
	(iii) Category C	Hour		R1 131,00	
	(iv) Category D	Hour		R 881,00	
	(b) Disbursements	Prime Cost			
	(c) Handling cost i.r.o. sub-item 3.8.1(b)	Percentage (%)			
3.8.2	Additional Duties by the Employer	Hour		R-1500,00	RATE ONLY
3.8.3	Special Services and Specialist Advice				

Item No.	Description	Unit	Quantity	Rate	Amount (R)
	(a) Special service and special advice provided by the Service Provider				
	(i) Personnel - Category A	Hour		R1 980,00	
	(ii) Personnel - Category B	Hour		R1 780,00	
	(iii) Personnel - Category C	Hour		R1 131,00	
	(iv) Personnel - Category D	Hour		R 881,00	
	(b) Special service and special advice procured by Service Provider	Prime Cost			
	(c) Handling costs i.r.o. pay item 3.8.3(b)	Percentage (%)			
3.8.4	Training of Targeted Enterprise Understudy	Prov. Sum			
3.8.5	Monthly Reporting Cost	Month			
3.8.6	Engagement with Project Liaison Committee (PLC), Project Stakeholders and Affected Communities				
	(a) Establishment of PLC	Lump Sum			
	(b) Liaison and meetings with the PLC during all project phases	Prov. Sum			
	(c) PLC stipend	Prov. Sum			
	(d) Handling cost i.r.o. item 3.8.6 (c)	Percentage (%)			
	(e) Training of PLC members	Prov. Sum			
	(f) Handling cost i.r.o. item 3.8.6 (e)	Percentage (%)			
3.8.7	Skills and Resources Audit, Market Analysis and Compilation of Databases				
	(a) Skills and Resources Audit and Market Analysis	Lump Sum			
	(b) Establish and maintain Targeted Enterprise database(s)	Lump Sum			
	(c) Establish and maintain Labour database(s)	Lump Sum			
3.8.8	Provision of Social Facilitation Services				
	(a) Social Facilitator	Prov. Sum			
	(b) Mark-up costs i.t.o. sub-item 3.8.8 (a)	Percentage (%)			
TOTAL CARRIED FORWARD TO SUMMARY					
3.9	QUALITY CONTROL OF THE TRAINING AND DEVELOPMENT WORKS CONTRACT				
3.9.1	Laboratory Testing				
	(a) Provision of a fully operational laboratory	Prime Cost			

Item No.	Description	Unit	Quantity	Rate	Amount (R)
	(b) Handling cost i.r.o. sub item 3.9.1(a)	Percentage (%)			
	(c) Off-site materials testing	Prime Cost			
	(d) Handling cost i.r.o. sub item 3.9.1(c)	Percentage (%)			
	TOTAL CARRIED FORWARD TO SUMMARY				
3.10	PROJECT CLOSE OUT				
3.10.1	Project Close Out				
	(a) Road works	Lump Sum			
	(b) Structures (bridges and other major structures)	Lump Sum			
	(c) Electrical	Lump Sum			
	(d) Buildings	Lump Sum			
	(e) Mechanical	Lump Sum			
	(f) Electronic	Lump Sum			
	(g) Other	Lump Sum			
	TOTAL CARRIED FORWARD TO SUMMARY				

C2.3 SUMMARY OF PRICING SCHEDULE

3.2	Project Assessment Stage	R
3.3	Design Development Investigations	R
3.4	Design Development Stage	R
3.5	Tender Documentation	R
3.6	Clarification Meeting, Tender Period and Tender Evaluation	R
3.7	Administration and Monitoring of the Training and Development Works Contract	R
3.8	Additional Duties, Special Services and Specialist Advice	R
3.9	Quality Control of the Training and Development Works Contract	R
3.10	Project Close Out	R

SUB-TOTAL	R
PLUS: VAT (15%)	R

TENDER SUM CARRIED FORWARD TO FORM OF OFFER (C1.1.1) R.....

SIGNATURE:

DATE:

NAME:

POSITION:

**C2.4 KEY PERSONS FOR THIS PROJECT AND SUMMARY OF TENDERED FEE
(EXCLUDING PROVISIONAL AND PRIME COST SUMS)**

SIGNATURE:

DATE:

NAME:

POSITION:

Refer to EXCEL file provided

FORM D1: PREFERENCE SCHEDULE: TENDERER'S B-BBEE VERIFICATION CERTIFICATE (INCORPORATING SBD6.1)

Notes to Tenderers:

1. The Tenderer shall attach to this form a valid copy of the B-BBEE Verification Certificate issued in accordance to the following:
 - a) The amended Construction Sector Codes published in Notice 931 of 2017 of Government Gazette No 41287 on 1 December 2017 by the Department of Trade and Industry.
 - b) If the Measured Entity operates in more than one sector or sub-sector (e.g. Contractor or BEP) the scorecard for the sector or sub-sector in which the majority of its core activities (measured in terms of Annual Revenue) are located will be acceptable, on condition that it complies with the annual revenue thresholds for EME or QSE or Generic in accordance with the Construction Sector Codes.
2. The certificate shall:
 - a) have been issued by a Verification Agency accredited by the South African National Accreditation System (SANAS); or
 - b) be in the form of a sworn affidavit or a certificate issued by the Companies and Intellectual Property Commission in the case of an Exempted Micro Enterprise (EME) with a total annual revenue of less than R1.8 million if issued in accordance with the amended Construction Sector Codes published in Notice 931 of 2017 of Government Gazette No 41287 on 1 December 2017 by the Department of Trade and Industry; and
 - c) be valid at the tender closing date; and
 - d) have a date of issue less than 12 (twelve) months prior to the tender closing date (see Tender Data 4.15).
3. In the event of a Joint Venture (JV), a consolidated B-BBEE Verification Certificate in the name of the JV shall be attached, as well as a valid B-BBEE verification certificate for each member of the JV on which the JV certificate was calculated.
4. The attached Verification Certificate and the associated Assessment Report shall comply with the requirements of Tender Data, Clause 5.11.8 and shall identify:
 - a) The name and domicilium citandi et executandi of the Tenderer.
 - b) The registration and VAT number of the Tenderer.
 - c) The dates of granting of the B-BBEE score and the period of validity.
 - d) The expiry date of the Verification Certificate.
 - e) A unique identification number.
 - f) The standard and/or normative document, including the issue and/or revision used to evaluate the Tenderer.
 - g) The name and/or mark/logo of the B-BBEE Verification Agency.
 - h) The scorecard (GENERIC, QSE, Exempt) against which the Tenderer has been measured.
 - i) The B-BBEE status level.
 - j) The South African National Accreditation System (SANAS) logo on the Verification Certificate once verification agencies have been accredited.
 - k) The B-BBEE procurement recognition level.
 - l) The score achieved per B-BBEE element.
 - m) The % black shareholding.
 - n) The % black women shareholding.
 - o) The % black persons with disabilities shareholding.
 - p) The % black youth shareholding.
 - q) the % black people living in rural or under-developed areas or s shareholding.
 - r) The % black military veterans' shareholding.
 - s) The value-added status of the Tenderer.

5. The Employer will not be responsible to acquire data that it needs for its own reporting systems and which may not form part of a Verification Agency's standard certificate format. The Tenderer, at its own cost, must acquire the specified data listed in 3 above from its selected Verification Agency and have it recorded on the certificate. Alternatively, such missing data must be supplied separately, but certified as correct by the same Verification Agency and attached to this form.

PART C3: SCOPE OF WORK

PART C3: SCOPE OF WORK

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C3 SCOPE OF WORKS

The Service Provider's Scope of Work entails the design of infrastructure to serve an identified Community and to oversee the implementation and/or construction thereof. However, other than addressing the needs of the identified Community, the purpose of this project and the related infrastructure is to facilitate the training and skills development of the identified Community and Targeted Enterprises.

The Service Provider is thus expected to be mindful during the design and all other project phases, that the Works must be designed and constructed in such a way to enhance the training and skills development opportunities of the identified Community and Targeted Enterprises.

C3.1 GENERAL REQUIREMENTS

C3.1.1 Scope

This section covers matters that relate to the project in totality. Definitions, phrases or wording that would otherwise require repetition in other sections of this document are also covered in this section. Matters covered by the General and/or Special Conditions of Contract are not repeated in this section, except to provide more detailed information.

C3.1.2 Location of the Project

The proposed project is located between in and near Kwaggafontein B which is within the jurisdiction of the Thembisile Hani Local Municipality in the Mpumalanga Province. It is near to National Road R.573), Section 2 between (km 24.7 and (km 36.2. A locality plan is available in Appendix A in Part C4 of this document.

C3.1.3 Description of the Project

a) Introduction

Training and skills development forms an integral part of the Employer's Transformation Policy and Community Development Strategy and hence, it is important to the Employer that Communities and small, medium and micro enterprise (SMME) Contractors within local Communities are trained and be equipped with skills that can be used to gain meaningful employment and secure subcontracting opportunities.

The purpose of this project is thus for a Training Service Provider and a Construction Manager to provide accredited training through a structure learnership programme/ skills programme to grade 1 or/and 2 and utilise the trainees in the upgrade of existing gravel access road to a low volume surfaced standard by utilizing labour enhanced construction methods. The scope of the works will include the relevant ancillary works. E.g. drainage provision.

The training and development programme shall comprise of, amongst others, structured theoretical training with an extensive practical and developmental implementation component.

b) Theoretical (Classroom) Training

The theoretical training shall be a SAQA accredited, full learnership programme that includes multiple, but related, Unit Standards which are relevant to the practical implementation component, i.e. the Works to be constructed. The theoretical, together with the practical, component of the project is aimed at achieving the training and skills development objectives of the Employer to lead towards Targeted Enterprises obtaining a formal qualification in the Construction Industry.

c) Practical (Workplace) Training and Development

During the practical, developmental component of the project, a Construction Management Service Provider shall closely monitor and supervise Targeted Enterprises and shall train, coach, guide, mentor and assist each Targeted Enterprise in all aspects of the management, execution and completion of a typical construction project. Amongst others, Targeted Enterprises shall be developed in the planning of the Works, sourcing and ordering of materials, labour relations, monthly measurements and invoicing procedures.

d) The Construction Project

A Community Development Project has been identified to facilitate the training and development programme.

This Community Development Project entails the upgrading of approximately 7km of access roads in and near Kwaggafontein B from gravel to surface standards as part of the implementation of the Access Management Plans for the upgrade of National Road R.573 Section 2 between km 24.7 to km 36.2

The Works consists, amongst others, of the following:

- i) Surfacing of the existing gravel road to low traffic volume standards
- ii) Improvement of road surface stormwater drainage.
- iii) Provision of new road signs and markings.
- iv) Construction of pedestrian facilities.
- v) Facilitate partnerships with learning institutions where possible, e.g. TVET
- vi) Identify economic development opportunities.
- vii) Training programs, e.g. SMME development, training and support.

The minimum design period shall be 20 years.

e) Project Approach and Execution

The Service Provider shall be required to approach and execute this project as follows:

- i) Assess and review the provided site information (see Part C4: Site Information) to derive a solution that will advance the employers objectives for this project, which includes, amongst others
 - a. a theoretical, SAQA accredited, full learnership training programme for Targeted Enterprises;
 - b. a practical, developmental component where Targeted Enterprises shall be trained, coached, guided, mentored and assisted in all aspects of the management, execution and completion of a typical construction project; and
 - c. construction methods that embrace the principles of labour enhanced construction methods (LECM) to maximise the participation of the local community in the project.
- ii) The highest applicable design standards and requirements for the infrastructure type and level of service shall be applied in the assessment. However, the Service Provider shall consider possible constraints such as limited road space, budget constraints, economic viability, LECM etc. and apply value engineering solutions to ensure optimal infrastructure utilisation.
- ~~iii) Prepare concept and preliminary design solutions for consideration and acceptance by the Employer.~~
- iv) Prepare concept and preliminary theoretical training and practical development programmes for the Community and Targeted Enterprises.

- ~~v) Prepare a property report for land acquisition purposes and submit it to the Employer's service provider for land acquisition matters and/or the relevant municipality for processing and approvals.~~
- ~~vi) Prepare detail designs and tender documentation for the work to be executed, as well as for the Community and Targeted Enterprise training and development programme.~~
- vii) Provide a supervision service for the total Targeted Enterprise training and development programme which includes supervision of the construction work activities.
- viii) Where required, identify and let to tender sub-, additional and/or specialist services, e.g. environmental assessments, etc.
- ix) Liaise, during all project stages, with project Stakeholders, affected Communities and other service providers who are appointed on adjacent and/or other road sections, to determine minimum design standards, coordinate design approaches and construction activities, conduct resources and skills analysis, etc. These liaisons may be on individual basis or group meetings arranged by the Employer.

f) Stages of Services Required

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

- i) Review of Detail Designs
- ii)
- iii) Administration and Monitoring of the Training and Development Contract.
- iv) Additional duties, Special Services and Specialist Advice.
- v) Quality Control of the Training and Development Contract.
- vi) Project Close Out.

C3.1.4 Determination of Remuneration

The determining of remuneration shall be based on 4 (four) different methods, which are not necessarily mutually exclusive, namely:

- a) Separate payment for services that are additional to those for which rates were provided;
- b) Payment as per the quantified rates provided for;
- c) Time-based fees; and
- d) Reimbursable expenses.

Payment for additional services, quantified rates provided for and time-based fees, shall be made on completion of the respective quantities and/or milestones achieved.

The fees and/or rates tendered shall include full compensation for the services required under all the different stages as specified herein, including allowances for overhead charges incurred by the Service Provider as part of normal business operations, including the cost of management, as well as payments to administrative, clerical and secretarial staff used to support professional and technical staff in general, materials, printing, and all other costs and all profits.

No aspect of the Service Provider's remuneration will be based on the cost of the works and no fee adjustments will be applicable to this Contract.

Should during the project a future phase be unbundled, cancelled, abandoned or postponed (more than 6 months), no compensation will be applicable to the unbundling, cancellation, abandonment or postponement or to the outstanding phases.

C3.1.5 Employer's Cost Estimate

For the purposes of this project, the current budget for the Works is estimated based on the cost of recently completed Works of a similar nature. The final cost 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 preliminary design phases. The Service Provider shall note that no adjustments to any tendered rates will be applicable irrespective of the actual final cost of the project.

The estimated costs of the different project components, with an anticipated commencement date of May 2023 are provided below (excluding contingencies, CPA during the construction period and VAT):

a) <i>Training and Development</i>	<i>R 23 million</i>
b) <i>Construction of the Works</i>	<i>R 59 million</i>
<i>Estimated TOTAL project value</i>	<u>R 82 million</u>
(excl. contingencies, CPA and VAT)	

C3.1.6 Standards, Manuals and Guideline Documents

The standards, manuals and guideline documents to be used in the project are as follows (latest revision to be used as applicable):

- a) CIDB Standard for Developing Skills through Infrastructure Contracts, August 2013
- b) TMH 9: Standard Visual Assessment Manual for Pavements
- c) TMH 11: Standard Survey Methods
- d) TMH 16: South African Traffic Impact and Site Traffic Assessment Manual
- e) TMH 17: South African Trip Data Manual
- f) TMH 19: Manual for the Visual Assessment of Road Structures
- g) TRH 3: Design and Construction of Surfacing Seals
- h) TRH 4: Structural Design for Flexible Pavements
- i) TRH 12: Flexible Pavement Rehabilitation and Design
- j) TRH 26: South African Road Classification and Access Management Manual
- k) The Employer's M1 Manual: (Code of Procedure Manual for Geotechnical and Materials Investigation, Design and Documentation)
- l) SANRAL's Geometric Design Manual
- m) SANRAL's Drainage Manual
- n) SANRAL's Land Acquisition Guideline Manual for Consulting Engineers
- o) SANRAL's Statutory Control Guideline Manual
- p) South African Pavement Engineering Manual (SAPEM)
- q) Highway Development and Management Model (HDM-4)
- r) South African Roads Design System (SAPDM) (when available)
- s) South African Road Safety Audit Manual (SARSAM)
- t) The SAICE Code of Practice: The Safety of Persons Working in Small Diameter Shafts or Test Pits for Civil Engineering Purposes
- u) Current industry best practice
- v) Conditions of Contract for Construction: FIDIC; 1999
- w) The Standard Specifications for Road and Bridge Works for South African Road Authorities (Draft Standard October 2020 edition) prepared by the Committee of Transport Officials, (COTO), as amended.
- x) Asphalt Academy TG1: The use of Modified Bituminous Binders in Road Construction – latest edition
- y) Asphalt Academy TG2: Technical Guideline: Bitumen Stabilised Material – latest edition
- z) The Employer's pro-forma documentation for services, sub-services, evaluations, etc.
- aa) Guidelines to formalise SANRAL's jurisdiction on National Roads (N14/5/6 revised manual)
- bb) Any relevant Provincial and/or Municipal Standards.

The style, format and presentation of the documents prepared by the Service Provider shall be in accordance with the requirements of the Employer.

The latest versions and editions of these standards shall always be used. These standards are generally available on the Employer's website (www.sanral.co.za) or other industry role players' websites, e.g. CSIR website (www.csir.org.za). Others can be purchased from SANRAL and organisations such as CESA, SAICE, etc.

Guidelines for drawings are contained in Annexure 21: CAD Symbols, Signs and Weights of Technical Methods for Highways TMH 11: Standard Survey Methods. This reference contains all the relevant information relating to grid intervals, topographical detailing, symbols, colours, weight and letter sizes etc.

The above is not an exhaustive list but shall be viewed as being the minimum standards applicable to the project. The Service Provider must apply his own knowledge and experience and recommend to the Employer other appropriate standards for his consideration.

C3.1.7 Stakeholder and Community Liaison and Social Facilitation

i) 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.

Allowance has been made for Stakeholder and Community Liaison and Social Facilitation in the Pricing Schedule under Additional Duties.

ii) Existing Contracts

The Employer currently has a routine road maintenance (RRM) and an upgrade contract in progress along the National Road R.573 Section 2 which are both adjacent to the project area. The Service Provider shall not visit the site for purposes of undertaking any investigation without first informing the Route Manager of the visit and what type of investigation is intended. The RRM contractor needs to be able to plan his accommodation of traffic duties and no inspection or investigation can take place without acquiring assistance from the RRM for safe conduct through the site or protection when undertaking intrusive or out-of-vehicle surveys. The Service Provider shall timeously liaise with the Employer and his appointed Route Manager to program the assistance required. The contact details of the parties involved in the RRM contract are as follows:

Route Manager	Phindile Dube Cell: 076 708 2677 Phindile Dube phindiled@zimile.co.za	Zimile Consulting Pty Ltd
Site Agent	Johannes Rametsi Cell: 063 742 4883 Johannes.rametsi@railrefurb.co.za	Rail Refurb CC
Resident Engineer:	Corne Gerber Tel. number: 012 421 3500 Cell number: 082 926 3871	AECOM
Contractor:	King Civils Engineering Contractors Tel. number: 011 957 2325 Cell number: 072 089 4713	

iii) Stakeholders

Stakeholders to the project is identified as any party who is affected by the Employer's operations in the Project Area and/or who has an interest or concern in the project,

either as a decision maker, participant or affected party and may include, amongst others, the following entities:

- i) Provincial departments;
- ii) Municipal departments;
- iii) Traditional authorities;
- iv) Community interest groups;
- v) Organised youth representation;
- vi) Organised women representation
- vii) Organised disabled people representation;
- viii) Organised labour representation;
- ix) Other structured community groups such as religion, education, farming, etc.;
- x) Transport industry forums;
- xi) Business sector forums;
- xii) Road user forums;
- xiii) Environmental interest groups;
- xiv) Road safety interest groups; and
- xv) Any other recognised relevant and representative structure.

iv) **Project Area**

This project is a Community Development project aimed at the development of a specific community, which was identified based on the principles of the Employer's Community Development Strategy and Policy. Participants in, and/or beneficiaries of, this project shall therefore be sourced from the Project Area in consultation with the Project Liaison Committee (PLC) and may typically include:

- a. one or more Local Municipalities; and/or
- b. one or more Wards that are wholly located within an area within a predefined radius of the identified community; and/or

v) **Designated Groups**

Participants in, and/or beneficiaries of, this Community Development project shall be selected from the following designated groups:

- i) Black designated groups as defined in the Codes of Good Practice issued in terms of Section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act 53 of 2003);
- ii) Black people as defined in Section 1 of the Broad-Based Black Economic Empowerment Act, 2003 (Act 53 of 2003);
- iii) Black people who are women and who are South African citizens;
- iv) Black people who are youth as defined in Section 1 of the National Youth Development Agency Act, 2008 (Act 54 of 2008);
- v) Black people who are people with disabilities as defined in Section 1 of the Employment Equity Act, 1998 (Act 55 of 1998);
- vi) Black people who are military veterans as defined in Section 1 of the Military Veterans Act, 2011 (Act 18 of 2011);
- vii) Black people who are living in rural or under-developed areas or townships;s;
- viii) Small enterprises as defined in Section 1 of the National Small Enterprise Act, 1996 (Act 102 of 1996);
- ix) Exempted Micro Enterprises (EMEs) as defined in terms of the Code of Good Practice on black economic empowerment issued in terms of Section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act 53 of 2003), with an annual turnover of R10 million or less (Construction Sector Amended Codes of Good Practice); and
- x) Qualifying Small Enterprises (QSEs) as defined in terms of the Code of Good Practice on black economic empowerment issued in terms of Section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act 53 of 2003), with an annual turnover of R10 million and R50 million (Construction Sector Amended Codes of Good Practice).

vi) **Project Liaison Committee (PLC)**

A PLC has either been established prior to commencement of the contract or shall be established as soon as possible by the Employer. The PLC is a committee that represents the Employer, Engineer, Contractor, project Stakeholders and the Communities affected by the Project. The Employer's Service Providers (e.g. Consulting Engineer, Training Service Provider, Construction Manager, etc.) becomes members of the PLC on their appointment and participate in the Committee within the scope of their respective roles and responsibilities.

PLC meetings shall be chaired by the Employer which will typically be the Employer's Project Manager or a staff member with decision-making delegation. The Service Provider's representative shall provide a secretarial service to take minutes of PLC meetings.

Secretarial support other than taking minutes at PLC meetings shall be provided by the Project Liaison Officer (PLO).

vii) **Duties of the PLC**

The PLC is the official platform at which the Employer, its Service Providers, project Stakeholders and the affected Communities communicate project matters which impacts on any of the parties to the PLC.

The SANRAL Project Liaison Committee guidelines requires of the PLC to execute specific duties during the design and construction phases of the project. Some of these duties overlap project stages and hence, a description of the PLC's duties in both project states is provided here.

The PLC shall execute the following duties:

i) **Project Design Stage**

- a. Meet as often as required to discuss and resolve the project's design stage matters, which are of interest or concern to the parties to the PLC.
- b. Peruse the SANRAL Project Liaison Committee guidelines and agree on the duties of, and procedures to be followed by, the PLC to fulfil its duties.
Note: The principles of the Guidelines shall not be amended, but duties and procedures may be altered to be project specific and to improve the functionality of the PLC.
- c. Act in accordance to the agreed terms of reference for the PLC.
- d. Inform the Employer of any training that project Stakeholders and affected Community representatives on the PLC require to execute their duties.
- e. Assist the Engineer to source suitable candidates based on the Employer's pre-qualification criteria for the position of Project Liaison Officer (PLO).
- f. Observe and verify that the qualifying criteria and procedures applied to select and employ the PLO are executed in a fair and transparent manner and are within the prescripts of the relevant legislation and regulations.
- g. Assist the Engineer to identify the Project Area(s) and sign off the identified Project Area(s).
- h. Assist the Engineer to identify the project's Designated Groups for inclusion in the Tender Documents and sign off the identified Designated Groups.

ii) **Project Implementation and Construction Stages**

- a. Meet formally prior to the Employer's monthly site meeting, or as may be required, to discuss and resolve project matters, which are of interest or concern to the parties to the PLC.
- b. Assist the Construction Management and Training Service Provider to establish the eligibility and preference criteria to select participants and/or beneficiaries to the project and endorse the agreed criteria.
- c. Sign off the Project Databases compiled by the Service Providers from which participants and/or beneficiaries will be selected.
- d. Verify that the criteria and methodologies applied by Service Providers to select participants and/or beneficiaries are executed in a fair and transparent manner, and within the Employer's and Government's Supply Chain Management Policies.
- e. Verify that the conditions of employment and the conditions of subcontracting, in the employment and subcontracting of Designated Groups are applied in a fair and transparent manner and according to the Employer's employment and subcontracting requirements.
- f. Make recommendations to the relevant Service Provider on the training needs, eligibility criteria and selection criteria, for the provision of training to Designated Groups, project Stakeholders and the affected Communities.
- g. Verify that training, development and support programmes are implemented and executed as intended.
- h. Inform the entities whom they represent of any project matters which the respective parties to the PLC wishes to communicate with each other.
- i. Inform the entities whom they represent of any project matters that are impacting or may impact, either positively or negatively, on project Stakeholders and the affected Communities.
- j. Inform the Service Providers of Stakeholder and/or Community requests and/or needs, which could possibly be addressed within the project's Scope of Work.
- k. Inform the Employer and its Service Providers of any road safety concerns within the project area(s) and advise them of possible mitigating measures and/or road safety programs that will be most feasible for acceptance by the affected Communities to promote road safety.
- l. Inform the Employer and its Service Providers of any project matters that are impacting, or are anticipated to impact, negatively on project Stakeholders and the affected Communities.
- m. Agree on a dispute resolution mechanism to resolve any disputes that may arise between the parties to the PLC.
- n. Assist parties to the PLC to liaise with their respective entities to resolve any disputes amongst the parties which may occur due to the project.

C3.1.8 Permits and Authorisations

Any Environmental Management Plans or Programmes (EMP's) over and above the Employer's standard plan (EMPI) that may be required will be treated as a specialised additional service. Conversely, the compilation of any plans and reports necessary to comply with the relevant environmental legislation pertaining to applications to operate quarries and borrow pits will be treated as a normal sub-service. Procurement of sub-service providers in such instances shall be in accordance with the requirements of clause C3.1.17. As approvals of any EMP's etc. are essential prior to the commencement of the Works, the Service Provider shall be responsible to ensure that all submissions to the relevant approving authorities are completed by the milestone date tabled in clause C3.1.9.

C3.1.9 Project Programme

The Service Provider shall programme its duties in such a manner to complete the various stages of the total project within the indicative milestone dates specified below. The Employer's indicative programme for this project is as follows:

Table 3.1.9: Project Programme

	Project Stage/Phase	Stage/Phase Completion Date
A	Submission of Tenders	9 December 2022
B	Appointment of Service Provider	May 2023
C	Project Hand-over meeting	May 2023
D	Submission of Draft Contract Report and As-built Data	Within 3 months of issue of Taking-over Certificate for the Works
E	Submission of Final Contract Report and As-built Data	Within 1 month of issue of Performance Certificate for the Works

The Service Provider shall submit its draft programme, based on the indicative programme, for the Employer's scrutiny at the project hand-over meeting.

The Service Provider shall submit its final programme, for the Employer's approval at the first progress meeting.

C3.1.10 Penalties and Delays

Penalties shall be applied for each calendar day by which the Service Provider fails to meet the prescribed dates for the milestones listed in clause C3.1.9 above. The quantum of the penalty shall be as listed in the Contract Data, clause 3.11.1. Draft reports and documents shall be submitted to the Employer prior to any meetings scheduled for the discussion and finalisation thereof as specified in the documentation requirements. The Service Provider shall thus take this period into account in compiling its programme.

Any delays to the above programme that are attributable to the Employer, or to other agreed mitigating circumstances, will not be subject to penalties. In the event of such instances arising, any extensions of time granted shall be limited to the equivalent number of calendar days attributable to each instance.

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 the 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 clause C3.82 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.

b) Additional Required Resources (Design Specialists)

The provision of additional required resources (Design Specialists) other than Key Persons, becomes a condition of award. These additional required resources are

listed in Form C1.2.2: Contract Data: Information Provided by the Employer. The successful Tenderer must provide proposed candidates complying with the minimum requirements for the prescribed positions as a condition of award.

c) Assistants to Key Persons and Additional Required Resources

Provision has been made in the Pricing Schedule for assistants to all the Key Persons and additional required resources (Design Specialists) other than Key Persons to participate or to gain experience in the positions proposed.

d) Minimum Requirements

The minimum qualifications and requirements for the Service Provider and sub-service provider's personnel shall be as indicated in the table below.

Table 3.1.11: Minimum Qualifications and Requirements

Position	Minimum Qualification or Registration	Minimum Relevant Experience (years) ³	Other Requirements
Project Leader	Pr Eng or Pr Tech Eng ¹	5	
Assistant Project Leader	Pr Eng or Pr Tech Eng ¹	N/A	
Design Specialist	Pr Eng or Pr Tech Eng ¹	5	
Assistant Design Specialist	Pr Eng or Pr Tech Eng ¹	N/A	
Surveyor	<ul style="list-style-type: none"> Registered Professional Surveyors Technologist Surveyors Technician Surveyors 	3	Member of SAGC ⁷
Engineering Geologist	Pr Sci.Nat ⁵	3	SAIEG ⁴
Environmental Practitioner	Refer to sub-service procurement document.		
Occupational Health and Safety Specialist	<ul style="list-style-type: none"> Design Phase: SACPCMP⁶ registration as a Professional Construction HSE Agent Construction Phase: SACPCMP⁶ 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	5	<ul style="list-style-type: none"> Road safety course (5 CPD). Minimum 2 (two) audits within 3 (three) years.
Contract Engineer	Pr Eng or Pr Tech Eng ¹	5	
Assistant Contract Engineer	Pr Eng or Pr Tech Eng ¹	N/A	

Position	Minimum Qualification or Registration	Minimum Relevant Experience (years) ³	Other Requirements
Engineer's Representative (RE)	Pr Eng or Pr Tech Eng ¹	3	
	<i>Pr Techni Eng¹</i>	5	
Assistant Engineer's Representative (ARE)	Candidate Pr Tech Eng ¹	3	
Senior Materials Technician	None specified	10	
	National Diploma in Civil Engineering	5	
	Pr Techni Eng ¹	3	
Materials Technician	None specified	5	
	National Diploma in Civil Engineering	3	
	Pr Techni Eng ¹	1	
Trainee Technician	Candidate Technician	0	

¹ Registered with Engineering Council of South Africa (ECSA) or any other international body recognised by ECSA, i.e. Washington Accord, Dublin Accord and Sydney Accord.

² Registered with Environmental Assessment Practitioners of South Africa.

³ Relevant experience is the actual number of years, measured from the date of acquiring the base qualification, worked in the field of the specified position.
For the road safety audit team leader, the field shall be road safety design and/or traffic and transportation engineering and/or geometric design.

⁴ Full membership of the South African Institute for Engineering Geologist.

⁵ Registered with the South African Council for Natural Scientific Professions (SACNASP).

⁶ South African Council for Project and Construction Management Professions (SACPCMP)

⁷ South African Geomatics Council (SAGC)

e) Personnel Category Definitions

The category of personnel necessary to undertake the work shall be approved by the Employer in accordance with the following definitions:

i) **Category A**

Shall mean a top practitioner whose expertise is nationally or internationally recognised and who provides advice at a level of specialisation where such advice is recognised as that of an expert.

ii) **Category B**

Shall mean a partner, a sole proprietor, a director, or a member who, jointly or severally with his other partners, co-directors, or co-members, bears the risks of business, takes full responsibility for the liabilities of such practice, performs work of a conceptual nature in engineering design and development, provides strategy guidance in planning and executing a project and/or carries responsibility for quality management pertaining to a project, e.g. the Engineer for the project.

iii) **Category C**

Shall mean all salaried senior professional and technical staff performing work of an engineering nature and who carry the direct technical responsibility for one or more specific activities related to the project. A person referred to in Categories A or B may also fall in this category if such person performs work of an engineering nature at this level, e.g. the Resident Engineer for the project.

iv) **Category D**

Shall mean all other salaried technical staff performing work of an engineering nature under the direction and control of any person contemplated in categories A, B or C.

f) **Limitation on Commitments of Key Persons and Other Required Resources (Design Specialists)**

Key Persons and additional required resources (Design Specialists) other than Key Persons will be limited to participate in a maximum number of 6 (six) contracts in either design or construction phase.

C3.1.12 Meetings and Liaisons

a) **Meetings and Liaisons between the Employer and the Service Provider**

Meetings between the Employer and the Service Provider are formal occasions. The Employer shall perform the duties of chairperson and the Service Provider the secretarial services, except for the project hand-over meeting where the Employer shall also perform the duties of secretarial services. The Service Provider shall submit draft minutes to the Employer for review before distribution, which shall not be later than 7 (seven) calendar days after the meeting. Meetings and liaisons shall be scheduled according to the Service Provider's approved project programme to discuss and record the progress of the Services.

Draft copies of all reports, design and tender documents submitted for review shall be discussed at specially convened meetings prior to their finalisation.

Attendance at the meetings and liaisons shall include joint venture members and/or Targeted Enterprise(s) (if any), sub-service providers and the designated Key Persons. A Key Person shall not be substituted by another Service Provider employee unless express permission for this has been sought from, and approved by, the Employer in writing. The Employer shall have the right to delay a meeting because of the non-availability of a Key Person and any delay costs so incurred shall be for the account of the Service Provider.

i) **Project Hand-over Meeting**

The date of the meeting will have been fixed and notice for it and an agenda included with the letter of acceptance of the Service Provider's offer.

The Service Provider shall come to this meeting prepared by his desktop assessment of the project details. The meeting provides a platform for the Service Provider to explain in detail how he intends going about the design development with specific reference to the methods, manuals and systems he will apply. For example, the relevant chapters dealing with pavement composition and behaviour, materials testing, standards, materials utilisation, design, etc. contained in the *South African Pavement Engineering Manual* (SAPEM) and the supporting suite of TMH and TRH publications have particular significance. With the release of SARDS the process to be followed will be dictated by the SARDS software process flow. The Service Provider shall identify those he thinks are relevant and anticipates he will use in developing the project design.

In addition, the Service Provider shall explain and demonstrate his awareness of the encompassing social, natural, economic, safety and statutory environment within which the project is situated and how each impact on it.

Further, the Service Provider shall demonstrate his understanding of the Topographical survey and Land Acquisition process and the critical aspects that would give rise to material delays in the project proceeding to the Design and Construction Phase.

The Employer has a standing agreement with a Comprehensive Property Management Service Provider and hereinafter referred to as the “PSP” and may elect to have the PSP present at this meeting.

This meeting also provides the opportunity for administration details to be finalised. Included among these, but without providing limits to what may be required shall be:

- a. Signing and initialling of the contract document;
- b. Confirmation of prescribed insurance cover, including that of joint venture members (if any);
- c. Confirmation of vendor registration;
- d. Delivery of a compact disc (CD) containing all relevant forms and procedures needed for effective project administration.

ii) Progress Meetings

The date for the first progress meeting shall be fixed at the project hand-over meeting, mindful that it cannot take place until the Service Provider has conducted his *in loco* inspection of the project site. The first progress meeting shall not be scheduled longer than 4 (four) calendar weeks after the hand-over meeting. Proposals for investigation and intrusive testing will be discussed at this first meeting.

The Service Provider's programme, as envisaged at the project hand-over meeting shall be fine-tuned and approved at the first progress meeting. The approved programme shall identify the number and frequency of progress meetings. They may be reduced or increased as necessary to achieve the milestone date of delivery of the approved detailed design.

Topographical surveys and the Land Acquisition process must form an integral part of the Service Provider's programme and must be listed separately in their proposed programme.

In addition, the Service Provider's programme must have careful regard to the need to produce Property Reports at the earliest possible time. This aspect may necessitate the presence of the PSP at this meeting.

The purpose of progress meetings is to discuss the development of the project design and the minutes produced shall form the record of progress against programme. The minutes shall record the discussions held and the decisions made.

Duties of some sub-service providers are not directly related to the development and production of the project design; nevertheless, because of the severe impact their progress can place on the programme, their presence at, and participation in, design progress discussions is not negotiable. They shall attend progress meetings and any delays caused by postponements due to their non-availability shall be to the account of the Service Provider.

iii) Gateway Review Meetings

Capital projects, having an estimated capital expenditure of more than R100 million, but less than R250 million, shall have a Regional Gateway Review process at the end of the Concept or Preliminary Design Phases (whichever is applicable), prior to the acceptance of such applicable design.

The review meeting shall be initiated by the Employer and the focus of such review meeting shall in the first instance be on the quality of the documentation and thereafter on:

- a. deliverability (the extent to which a project is deemed likely to deliver the expected benefits within the declared cost, time and performance envelope);

- b. affordability (the extent to which the level of expenditure and financial risk involved in a project can be taken up on, given the Employer's overall financial position, both singly and in the light of other current and projected commitments); and
- c. value for money.

Details of such a Gateway Review process is provided in the Annexure.

b) Other Project Related Meetings

The Service Provider must ensure that proceedings of meetings (whether formal or informal) are formally documented. These meetings may be between the Service Provider, sub-service providers, the PSP and/or other Stakeholders. The Employer may attend these meetings.

i) Project Liaison Committee (PLC) Meeting

The PLC will meet on an ad-hoc basis during the Design Stage of the project to discuss and resolve project related issues and matters of interest or concern to project Stakeholders and affected Communities, the Employer and the Service Provider.

The PLC will meet prior to the monthly site meetings or as may be required from time to time during the Construction Phase to discuss and resolve project related issues and matters of interest or concern to project Stakeholders and affected Communities, the Employer and the Service Provider.

ii) Training, Development and Construction Contract Hand-over Meeting

It is required that the Service Provider's Contract Engineer and the Engineer's Representative (Resident Engineer) attend the Training, Development and Construction contract hand-over meeting.

C3.1.13 Risk Management

The concept of risk shall be discussed at all meetings, starting with the hand-over meeting. The Service Provider shall identify restrictions and limitations on the design development that the various processes may impose, estimate the probability that they will impact on performance, advise what measures are proposed to avoid them and what mitigating measures could be taken to mitigate in the event they do occur. This creates a risk register that must be raised and discussed at each successive progress meeting.

Used properly, the risk register will predict or pre-warn of change; as the probability of an event increases so will the need for a Works Authorisation to approve extensions of time or allocation of more funds become more certain.

A base risk register shall be discussed and recorded at the hand-over meeting. It shall be re-visited at each successive progress meeting to confirm the status of each and record any changes. The opportunity to add more or remove others will also be discussed at the progress meetings.

A fundamental element of risk assessment, but by no means the only one, will be economic affordability meaning that each design strategy must be separately and broadly estimated for comparison against the basis of the Employer's budget for the project. In essence, this analysis relates to testing the economic and technical feasibility of the Employer's envisaged design strategy. Similarly, other identified risks will have a cost element to them and these must also be brought to the Employer's attention for discussion and decision. The Employer may require the Service Provider to make use of its standard risk reporting format.

C3.1.14 Document Management

Three (3) hard copies of draft reports and/or documents shall be submitted 10 (ten) calendar days prior to the meeting dates for discussion purposes. All changes emanating from these meetings shall be incorporated into a final version. The record of the changes shall be by means of track changes to the draft version and submitted in CD format.

When a volume consists of more than 1 book, the number of the volume appears on the cover and on the title page, together with the number of the book, e.g. Volume 3: Book 1 of ..., or Volume 3: Book 2 of ..., etc.

All reports and/or documents shall utilise the Employer's pro-forma formatting without alteration unless specific request for a change has been submitted to and approved by the Employer. Pro-forma report formats are contained in Part C4: Site Information.

The table below lists the requirements of documentation that the Service Providers shall apply.

Table 3.1.14: Documentation Requirements

Document Characteristics	Draft Reports and Documents	Final Reports and Documents	Books of Drawings
Page	A4 80g/m ²	A4 80g/m ²	A2 80g/m ²
Cover Page Layout	Employer's pro-forma works document cover page with appropriate wording for the specific report or document.		
Cover	White 80g/m ²	<ul style="list-style-type: none"> • Reports: Tokai Blue 160g/m² • Documents: Red 160g/m² 	<ul style="list-style-type: none"> • Draft: White 80g/m² • Final: Red 160g/m²
Printing <ul style="list-style-type: none"> • All left-hand margins to be 2.5cm. • Printing to be left justified. 	Back to back pages.	<ul style="list-style-type: none"> • Reports: Back to back. • Contract Document: Back to back except: <ul style="list-style-type: none"> ○ New sections. ○ Returnable schedules. ○ Pricing schedule. 	All on separate pages.
Binding <ul style="list-style-type: none"> • Maximum thickness to be 3cm. 	Plastic ring binders.	<ul style="list-style-type: none"> • Reports: Plastic ring binders. • Contract Documents: Stapled, glued and bound. 	<ul style="list-style-type: none"> • Draft: Stapled and bound. • Final: Stapled, glued and bound.
Number of Paper Copies	3 (three)	<ul style="list-style-type: none"> • Reports: 1 (one). • Tender Documents: 1 (one). • Contract Documents: <ul style="list-style-type: none"> ○ 2 (two) original for signature, and 	<ul style="list-style-type: none"> • Draft: 3 (three). • Final: <ul style="list-style-type: none"> ○ 2 (two) original for signature, and ○ 1 (one) copy.

		○ 1 (one) copy.	
Number of Electronic Copies	1 (one) CD/DVD.	<ul style="list-style-type: none"> • 1 (one) CD/DVD. • 1 (one) CD/DVD of signed contract. 	1 (one) CD/DVD.
Electronic Format	MS Office 2013 and PDF.	MS Office 2013 and PDF.	PDF

C3.1.15 Management of Drawings

When the Service Provider produces drawings he shall, where applicable, use the Employer's typical details and when doing so they shall become integrated into the Service Provider's detail design for which he will assume full professional responsibility.

The requirements shown on the Employer's pro-forma drawing, available on the Employer's web site, shall be used. Drawings shall incorporate what has been discussed and agreed at the various progress meetings. All drawings issued to the Construction Manager shall be fully signed and any amendments thereof shall also carry full original signatures.

C3.1.16 Building Information Modelling (BIM)

As part of SANRAL transition to Building Information Modelling (BIM) for roads and bridges, all capital projects incorporating improvements (i.e. paved shoulders, additional lanes, horizontal and vertical realignment) and new projects (new carriageway, new bridges, new brownfields/green fields) to be delivered in 3D engineered models and no longer in 2D.

SANRAL is currently initiating a research project to develop open data standards (Model View Definition) compliant with Industry Foundation Classes (IFC) data models. IFC is the industry standard in the vertical industry and is well established, and currently has global initiatives working toward implementing BIM for roads and bridges in other countries, making a natural alignment with IFC the most appropriate approach process. SANRAL will make these open standards available as soon as finalised. The Service Provider need to ensure that the Software Packages utilised are able to deliver 3D engineered models.

C3.1.17 Safety

This part of the specification has the objective to assist the Service Provider entering into contracts with the Employer that they comply with the Occupational Health and Safety (OH&S) Act, No 85 of 1993, as well as all applicable Regulations. Compliance with this document does not absolve the Service Provider from complying with minimum legal requirements and the Service Provider remains responsible for the health and safety of his employees and those of his Mandataries. The Service Provider shall therefore include this part of the specification to any contract that he may have with sub-service providers and/or suppliers.

This part also covers the development of a health and safety specification that addresses all aspects of occupational health and safety as affected by this contract. It provides the requirements that the Service Provider shall comply with, to reduce the risks associated with this contract, which may lead to incidents causing injury and/or ill health. In this matter the spirit and intention of Regulation 5(1)(l) of the Construction Regulations, 2014, regarding negotiations between the parties, related to the contents and approval of the Health and Safety Plan, must be complied with.

The Service Provider shall on award of the contract become the Client's Agent in terms of Construction Regulation 5(5), (6) and (7) of the Occupational Health and Safety Act, (Act 85 of 1993). The duties and responsibilities as the Client's Agent are as prescribed in Construction Regulation 5(7).

For purposes of clarity typical duties required of the Service Provider are given in (b) and (c) below, but they shall not be interpreted as being exhaustive and if any conflict between them and the legislated Construction Regulations occurs the latter shall rule.

a) Project Specific Requirements

The following is a list of Baseline Risk Assessment and project specific health and safety specifications prepared by the Client in terms of Construction Regulation 5(1)(a) and 5(1)(f).

i) Baseline Risk Assessment for Design Phase

- a. Working in elevated positions, e.g. Bridge Inspections.
- b. Working over water environments, e.g. Bridge Inspections.
- c. Excavation, e.g. locating existing underground services, digging test pits.
- d. Manual handling, e.g. setting up surveying equipment.
- e. Ergonomic risks.
- f. High and low voltage power lines; overhead and underground.
- g. Working close to railway lines.
- h. Uneven ground surfaces.
- i. Personal safety and security risks.
- j. Traffic Control, e.g. ensure correct signage at correct distances.
- k. Working from ladders.
- l. Exposure to noise.
- m. Working close to traffic.
- n. Working with hot materials.
- o. Radio-active equipment.
- p. Hazardous chemical substances.
- q. Flammable materials.
- r. Driving to and from site.
- s. Biological risks, e.g. bees, snakes, spiders, etc.
- Environmental risks.
 - i. Bad weather conditions, e.g. rain, lightning, wind.
 - ii. poor visibility
 - iii. heat exposure, e.g. dehydration.
 - iv. cold environment

ii) Baseline Risk Assessment for Supervision Phase

- a. Clearing and grubbing of the area and/or the site.
- b. Site establishment including:
 - i. Office(s)
 - ii. Secure and safe storage for materials, plant and equipment.
 - iii. Ablutions.
 - iv. Sheltered eating area.
 - v. Maintenance workshop.
 - vi. Vehicle access to the site.
 - vii. Temporary fuel storage, where applicable.
 - viii. Laboratory establishment, where applicable (Client responsibility).
- c. Dealing with existing structures, e.g. possibility of asbestos.
- d. Location of existing services, e.g. gas, telecommunications, electrical supply, etc.
- e. Installation and maintenance of temporary construction electrical supply, lighting and equipment.
- f. Adjacent land uses and/or surrounding property exposures.
- g. Boundary and access control and/or public liability exposures (NB: The Employer is also responsible for the occupational health and safety of non-employees affected by his/her work activities).
- h. Health risks arising from neighbouring as well as own activities and from the environment, e.g. threats by dogs, bees, snakes, lightning, etc.
- i. Exposure to a water environment.

- j. Exposure to noise.
- k. Exposure to vibration.
- l. Protection against dehydration and heat exhaustion.
- m. Protection from wet and cold conditions.
- n. Dealing with HIV/Aids and other diseases such as silicosis or asbestosis, where applicable.
- o. Use of portable electrical equipment including:
 - i. Angle grinder
 - ii. Electrical drilling machine
 - iii. Circular saw
 - iv. Generator
- p. Excavations including:
 - i. Ground/soil conditions
 - ii. Trenching
 - iii. Shoring
 - iv. Drainage of trenches
- q. Welding including:
 - i. Arc welding
 - ii. Gas welding
 - iii. Flame cutting
 - iv. Use of LP gas torches and appliances
- r. Loading and off-loading of trucks.
- s. Aggregate, sand and other material delivery.
- t. Manual and mechanical handling.
- u. Lifting and lowering operations.
- v. Driving and operation of construction vehicles and mobile plant including:
 - i. Trenching machine
 - ii. Excavator
 - iii. Bomag roller
 - iv. Plate compactor
 - v. Front end loader
 - vi. Mobile cranes and the ancillary lifting tackle
 - vii. Grader
 - viii. Parking of vehicles and mobile plant
 - ix. Towing of vehicles and mobile plant
- w. Use and storage of flammable liquids and other hazardous substances, e.g. petrol, diesel, cement, asphalt, bituminous materials and similar.
- x. Layering and bedding.
- y. Installation of pipes in trenches.
- z. Pressure testing of pipelines.
- aa. Backfilling of trenches.
- bb. Protection against flooding.
- cc. Gabion work.
- dd. Use of explosives.
- ee. Protection from overhead power lines (High and low).
- ff. Work adjacent or in proximity of railway lines.
- gg. Work adjacent or in proximity of traffic.
- hh. Working at heights.
- ii. Working in confined spaces, e.g. tunneling.
- jj. Formwork and support work (temporary works) including scaffolding.
- kk. Demolition work, where applicable.
- ll. Bulk mixing plant, where applicable.
- mm. Environmental impacts such as pollution of water, air or soil.

b) Design Phase

The Service Provider or his registered Professional Construction Health and Safety Agent must identify elements of the design that are inherently dangerous or hazardous during the construction phase and design in such a manner as to mitigate or eliminate the risk where possible. To this avail the Service Provider (or his Agent as outlined above) must prepare a baseline risk assessment for the intended construction work

project and make the same available to the Employer. This duty of identification continues into the construction phase of the project regardless that the designer may not be monitoring the construction phase. All identified dangers and/or hazards are to be listed and brought to the attention of potential contractors by means of the baseline risk assessment as outlined above and envisaged in Construction Regulations 5(1)(a), (b) and (c).

For example, staging for bridge decks or shoring of unstable excavations is the designer's responsibility to identify and notify of the health and safety risk. It is also the designer's responsibility to undertake inspections at critical phases of construction to ensure that the identified risks are continuously and appropriately mitigated.

c) Construction Phase

During the construction phase the supervising Service Provider must ensure that the Employer's duties are continuously fulfilled, meaning that the Service Provider shall include amongst its permanent monitoring staff at least one appropriately trained member. In addition, the Service Provider must conduct monthly internal audits to ensure the site personnel are adhering to the statutory requirements. Costs for performing this duty are recoverable via the rate offered for this scheduled item of work. An Occupational Health and Safety Audit Questionnaire is included in Part C4: Appendix D for this purpose. This audit may be conducted by either the registered Professional Construction Health and Safety Agent or a registered Construction Health and Safety Manager.

The Employer may order external audits, the costs of which are separately recoverable as a disbursement to the specialist sub-service provider selected to conduct such audits.

Furthermore, the Service Provider must, in compliance with Section 24 of the Occupational Health and Safety Act (Act 85 of 1993) report immediately to the Employer's Health and Safety Officer and the relevant project manager the details of a Section 24 incident, including confirmation that the construction contractor has similarly reported the same incident directly to the Department of Labour.

d) General Occupational Health and Safety Provisions

Site specific health and safety specifications for the intended construction work based on the Baseline Risk Assessment is included in Part C4: Appendix D.

C3.1.18 Procedure for Procurement of Sub-service Providers

A sub-service is taken to mean any service necessary to produce the project design and later construction, which is performed by someone other than the Service Provider. A sub-service procured directly by the Service Provider requires the Service Provider to enter into a sub-service agreement with that sub-service provider. The relationship between the Service Provider and sub-service provider is that of contractor/sub-contractor.

Another type of sub-service is less direct because the service required has already been procured by the Employer under a separate agreement. The role of the Service Provider in the management of this sub-service is that of the Employer's agent.

In both cases the Service Provider is responsible for the performance of the sub-service.

Procurement of a sub-service shall be undertaken by means of a quotation or tender process. The Service Provider shall compile and issue a relevant and approved terms of reference, together with the relevant work or pricing schedules, in accordance with the Employer's standard pro-formas and Supply Chain Management and procurement policies. This will require the Service Provider to advertise an open tender process or to invite quotations from identified potential sub-service providers and submit tender documents to the relevant regional office for collection and receipt of the tenders at that office.

Submitted quotations or tenders, in a sealed envelope, directly to the Employer's regional office by the date and time agreed, will be opened in public by the Employer's delegated staff. The Service Provider shall remove under signature all submitted offers for analysis and submit a report with recommendations to the Employer for approval prior to the appointment of any sub-Service Provider. Once approved, the Service Provider shall enter into an agreement with the sub-service provider with a copy of same submitted to the Employer.

In cases where a conflict of interest may arise, e.g. the Service Provider have shares in a laboratory that also wants to tender, the Employer will take over the procurement process described in the above paragraph as well as do the evaluation and recommendation of the sub-service provider.

The minimum requirements for different types of sub-services to be procured under provisional and/or prime cost sums are described in Part C4: Annexure J.

C3.1.19 Participation of Targeted Enterprise(s)

The Employer may stipulate the participation of Targeted Enterprise(s) in the project design and construction as a mechanism to broaden the economic share of the national spend on engineering services and as a means to hasten and improve the transfer of technical skills.

The Service Provider's Targeted Enterprise(s) become a contractual commitment upon award.

The Targeted Enterprise(s) shall be involved throughout the project stages and the percentage specified in the Contract Data shall be applicable to actual work split (excluding all provisional and prime cost sums but including site staff salaries) amongst the following stages:

- i) Project Assessment.
- ii) Design Development Investigations.
- iii) Design Development.
- iv) Tender Documentation.
- v) Clarification Meeting, Tender Period and Tender Evaluation.
- vi) Administration and Monitoring of the Training and Development Contract.
- vii) Additional Duties, Special Services and Specialist Advice.
- viii) Quality Control of the Training and Development Contract.
- ix) Project Close Out.

The use of Targeted Enterprise personnel as site staff during the administration and monitoring of the Training, Development and Construction phase is included as part of the percentage specified in the Contract Data.

C3.1.20 Training

a) Service Provider's Staff and Targeted Enterprise

The Employer encourages training of candidate engineers or undergraduates requiring experiential training on this project. Training of the Service Provider's own permanent staff, temporary staff or Targeted Enterprise(s) involved in this project becomes a reportable monthly event in terms of time and cost attributable to the Employer's spend from its allocated budget. Separate allowance has been made to train the Service Provider's and Targeted Enterprise's staff as assistants to certain required positions.

b) Employer's Trainees

The Employer may enter into a separate arrangement with the Service Provider for training of its own permanent employees as a secondment for the express purpose of

providing its candidate engineers with design and/or site supervision experience. The Employer may also enter into an arrangement with the Service Provider to provide experiential training to students.

The design phase provides the opportunity for students and candidate engineers to receive training. Three distinct categories of training are recognised. The first, and most formal, is the placement of the Employer's candidate engineers with the Service Provider for training distinctly geared to professional registration with the Engineering Council of South Africa (ECSA). The training provided shall be predominantly, but not exclusively, related to this project and may be subject to scrutiny and inspection in loco by the Employer who is responsible for candidates' remunerations. The trainees are expected to work according to the Service Provider's terms and conditions of employment, especially those related to confidentiality. They are to be treated as if they were the Service Provider's own full-time personnel. No allowances shall be made for working overtime.

Less formal will be experiential training the Service Provider is requested to provide to university or university of technology undergraduate students. The training provided must be in accordance with the academic institution requirements.

The Service Provider, apart from providing the technical training, shall also provide trainees with all the tools (including appropriate information technology hardware and software) and space necessary to carry out engineering or survey work as if they were the Service Provider's own permanent staff.

Reporting on training progress of each candidate engineer and student shall be compiled according to the formats and intervals set by ECSA (for engineering students) or SAGC (The South African Geomatics Council).

C3.1.21 Payment and Monthly Reporting using the Employer's Integrated Transportation Information System

When submitting interim certificates for payment the Service Provider shall use the Employer's standard forms and formats. No payment can be made before the Service Provider is registered as a vendor on the Employer's system.

The Service Provider shall submit payment certificates for all work rendered in the Employer's financial year within that specific year.

The Service Provider shall monthly, submit and update a cash flow forecast for the remuneration of the full service to be rendered.

The Service Provider shall complete monthly reports regarding training, empowerment, capacity building, small contractor development, labour and staff returns and any such aspects on the Employer's Integrated Transportation Information System (ITIS).

The Employer has developed a comprehensive information management tool called Integrated Transportation Information System (ITIS) to address all facets of its strategic and tactical planning, design, construction and maintenance of the entire road network. This provides support for the management tasks of the Employer and to make technical decisions more quickly and efficiently.

ITIS is an integrated approach to the sharing and inter-relating of technical performance information for the Employer and relies on Service Provider following procedures to populate the system with data. ITIS currently consist of the following platforms:

- a) ITIS Web Web enabled portal providing online access to various functions, workflows and reports.
- b) ITIS Desktop Offline data capture tool enabling the capture of information offline, validation and then synchronisation of data with the ITIS database.

- c) ITIS Mobile Application (Android 6 or later) that allows the in-field capture of information using a smart phone or tablet (must have camera and GPS), validation and then synchronisation of data with the ITIS database.

The Employer has several ITIS modules running on any of the above ITIS platforms which affect the Service Provider and Training and Construction Manager, who will need to use some of these modules to perform certain procedures and to provide required information. The current modules applicable to this contract and their description are as follows:

- i) Contract Module management of contracts.
- ii) Project Information Module uploading of employment and training data.

User manuals for the various functions can be downloaded from <https://itis.nra.co.za/Portal/MyAccount/UserManuals> after the successful registration as a public user. This ITIS public user registration procedure is explained in the document as attached in Part C4: Appendix K.

Allowance has been made for these requirements in the Pricing Schedule under Additional Duties. Failure to comply may result in payments being withheld.

C3.1.22 Contract(s) or Agreement(s) with Targeted Enterprise(s)

The Service Provider shall enter into a contract or agreement with the Targeted Enterprise(s) to provide him with the opportunity to participate in this SANRAL project under their guidance. Copies of the contract(s) or agreement(s) shall be provided to the Employer.

C3.1.23 Multiple Strategies

Service Provider appointments by the Employer premise the fundamental concept that the Service Provider can formulate a training and development strategy for the identified Community and Targeted Enterprises and provide a design that is not just fit for purpose but also carries the hall mark of value for money. The training and design strategies on which the Employer has based its budget has been explained in section C3.1.4. It is expected of the Service Provider to interrogate the appropriateness of these training and design strategies and to offer alternatives to it for consideration by the Employer.

C3.1.24 Service Provider's Estimated Cost of the Training and Development Contract

The Service Provider shall at the completion of each stage or phase where applicable, provide the Employer with an updated realistic estimate of the cost of the training and development contract. Despite this requirement, the Service Provider shall, at the end of September of each year, provide the Employer with an updated realistic estimate of the cost of the training and development contract, as well as the foreseen duration of the contract.

C3.1.25 Economic Feasibility Analysis (Not required for the CD project)

Development of the design shall include continuous testing of the feasibility of the project so that in the unlikely event of a total misreading of the project scope as prescribed a decision can be made to abandon, change or continue with the design development. The earlier the warning the earlier change decisions can be made.

Where applicable for a stage, the feasibility outcome shall be accompanied by the output of an HDM-4 analyses and even at the first progress meeting, comments on the feasibility must be discussed, however unrefined the input parameters might be.

For this project, an HDM-4 economic analysis will not be required.

C3.1.26 Communication Management

Communication management must be identified early in the life of the project and discussed with the Employer as to who shall be responsible for liaising with which party and to define the limits or authority that either party shall speak for, or commit the other.

At the earliest stage of design development, the Service Provider should have already identified the relevant and potential Stakeholders and affected/identified Community in the project and list those that may play a sanctioning role that could accelerate or delay delivery of the project.

C3.1.27 Services

The early identification of services is a critical element in the project. The Service Provider shall identify those that are observable during the project assessment stage and those resulting from further later investigations.

During the design development phase, the Service Provider shall continuously liaise with the identified service owners (who form part of the strategic partners) and with the Employer. A first step is to search for any wayleave or similar authorisation agreement for the service to be placed within, alongside or across the project site. All liaison shall be formal and in writing.

Service relocation may be required. If any design is required to temporarily or permanently relocate the service, such design shall not be to the Employer's account unless agreed during liaison with the service owner. Regardless that any agreement is reached the Employer shall not take responsibility for the subsequent design, it being deemed that it cannot assume liability for property that it does not own or operate. However, the Service Provider is at liberty to offer its design capabilities to the service owner under an agreement between them. The service owner's design cost recovery may be via the contract should the Employer and service owner so agree, but no design liability shall pass to the Employer.

C3.2 PROJECT ASSESSMENT STAGE

C3.2.1 Scope

This section covers the project assessment stage which precedes any design development. Thereafter, the actual designs will be produced in single or multiple phases depending on the complexity of the project. This stage requires assessment of the project through perusal of relevant reports and previous studies, designs or surveys relating to the project, undertaking new inspections, surveys, studies and/or intrusive investigations, including subsequent testing, and analysis of test results.

Whilst the aspect of Land Acquisition may still be premature in the sense that the work required to determine what land will be required is only done later, it is nevertheless important that the Service Provider is always familiar with the contents of the SANRAL Land Acquisition Guideline Manual for Consulting Engineers (hereinafter referred to as the "LAC Manual").

The stage ends with the production of a report detailing the findings of the assessment and the identification of multiple design options to be developed in the following stage.

C3.2.2 Assessment in Phases

Assessment of the project shall be conducted in the sequence described hereunder.

In the first part of project assessment the Service Provider shall undertake an initial assessment, i.e. a desktop assessment of the information provided, which may also include additional data, reports, studies etc. issued with the letter of acceptance of an offer. This part culminates with attendance at the project hand-over meeting at which the Service Provider will put forward for discussion and approval of the planned assessments in the context of an overall design development strategy.

The second part of project assessment is the visual assessment and thorough analysis of information provided, where after the Service Provider shall arrange for the first progress meeting with the Employer to confirm the design strategy and acquiring approval for the type, quantity and positioning of intrusive and other investigations which form the third part of project assessment.

First and second parts of the assessment requirements are summarised below and expanded in the following paragraphs:

- i) Review and analyse information provided.
- ii) Conduct visual assessment of the infrastructure.
- iii) Identify statutory and regulatory requirements.
- iv) Identify other stakeholders with whom consultations may be needed.
- v) Consider feasibility of various construction strategies.
- vi) Evaluate risk that the project presents to the Employer.
- vii) Other criteria.

C3.2.3 Initial Assessment

Existing information with respect to the relevant project is given in Part C4: Site information and/or Part C5: Annexures. The information provided there is deemed sufficient both for purposes of tendering and for initial assessment (i.e. desktop assessment). This information shall be studied and used to determine the extent of intrusive investigations that need to be undertaken to prove pavement or existing ground or structural conditions. In the case of reports, studies or designs previously undertaken and not able to be condensed into Part C4: Site Information, these must be collected from the Employer by the Service Provider and returned together with the submission of the Detailed Design report. Failure to return information for which the Service Provider will have signed out from the Employer's registry will constitute reason for the Employer to withhold payment until such information has been returned in an acceptable condition for continued archiving.

The Service Provider should not take the existing data at face value only, but shall interrogate its integrity and accuracy as well as determine the need to access any additional data such as as-built drawings, plans, traffic counts etc. and enquire from the Employer whether such additional information does exist and assist in sourcing same if possible.

With the release of the SARDS, the available electronic information will be made available online for review during the tender period to assist the Service Provider, if applicable to this CD project.

Existing data is, by itself, insufficient to conduct a detailed assessment and must be amplified by visual inspections and subsequent surveys and investigations.

a) Socio-economic Status of the Community

The Service Provider shall prepare questionnaires and conduct site visits to, and interviews with, the local community to establish their socio-economic status prior to commencement of the project. Typical aspects of this assessment may include determining the level of access that the community has to developmental and economic opportunities, as well as the level of access to services and how it impacts on their lifestyle and quality of life. The purpose of the study is to compare pre-project assessment results with post-project assessment results to determine the impact of the project, if any, on the socio-economic status of the community.

b) Traffic Assessment (Not required for this CD project)

The Service Provider shall review the traffic data provided to determine any potential need for capacity and pavement improvement and identify any need for additional traffic counts or studies.

With the release of the SARDS, the Capacity Analysis will be performed by the Service Provider using the SARDS software, if applicable to this CD project.

c) Geometric Assessment (Not required for this CD project)

The Service Provider shall compare the existing horizontal and vertical alignment data and accompanying geometric values with the Employer's geometric standards to identify any potential need for capacity improvements.

With the release of the SARDS, the Capacity Analysis will be performed by the Service Provider using the SARDS software, if applicable for this CD project.

d) Pavement Assessment

Identify uniform sections within the project site.

With the release of the SARDS, the identification of uniform sections will be performed by the Service Provider using the SARDS software, if applicable for this CD project.

e) Structures Assessment (Not required for this CD project)

No vehicular, pedestrian or any other major overpass or bridge structure shall form part of this CD project. However, the recording, inspection, maintenance and/or new major culverts and/or minor bridge structures may be included with this CD project and the Service Provider shall deliver his services pertaining to these structures under the directive of SANRAL's Bridge Engineer.

Assess the available information and conduct a site inspection of all structures located on/in the project area to undertake a condition assessment and to gain a general appreciation for the structures and the structural issues that may arise as a result of the envisaged work.

Identify which structures that require capacity improvement (hydrologically, traffic, strength, etc.) and maintenance or rehabilitation interventions. All structures shall be assessed and those requiring intervention shall be reported in the Project Assessment Report for further action by the Employer.

f) **Drainage Assessment (Not required for this CD project)**

Assess all drainage systems and compare to drainage manual guidelines.

g) **Geotechnical Assessment (Not required for this CD project)**

Identify potential geotechnical risks from the provided Slope Management System data or any other information provided.

h) **Assessment of Material Sources**

Assess information provided from previous contracts (if available).

In addition, the Service Provider must take cognizance of the Employer's transformation efforts with respect to the utilization of local material resources produced and delivered by local SMME businesses and/or Communities. The Service Provider shall thus make a distinct effort to assess the availability of such material sources.

i) **Safety Assessment**

j)

Assess Incident Management System (IMS) data for potential hazardous locations.

With the release of the SARDS, the identification of potential hazardous locations will be performed by the Service Provider using the SARDS software, if applicable to this CD project.

k) **Environmental Assessment**

The Employer anticipates that the appropriate environmental authorisation process is a basic assessment. From data available, assess whether the Employer's expected authorisation process is correct, using the services of an environmental specialist who shall confirm the type of environmental approval, (i.e. basic application or full environmental investigation including all other permits and authorisations) that must be applied for from the relevant Authorities.

In addition, the Service Provider; will also assist in identifying the content for an independent Environmental Assessment Practitioner's (EAP) sub-service tender document.

l) **Land Assessment (Not required for this CD project)**

At this stage, the identification of informal settlements that may impact on the project must be carried out. Where the project traverses land under the control of a Tribal (Traditional) Authority then the identification of clusters of homes and/or other structures that may require relocation should be made. The above, if evident, must immediately be reported to the Employer.

C3.2.4 Visual Survey

The Service Provider shall carry out a comprehensive visual assessment survey for the project with the purpose of comparing the desktop assessment assumptions against visible reality. Apart from an overall impression, the visit shall be used to assess the existing condition of the pavement, all drainage and other structures, road side furniture, slopes, road safety and all other aspects to ascertain the current overall condition. This survey shall be conducted by the Service Provider's designated Design Specialist(s) and cannot be delegated to others.

With the release of the SARDS, the data from the Visual Assessment based on TMH 9 (Pavements) will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format in TMH 18, if applicable to this CD project.

The visual survey shall also include the identification of any other associated aspects located within the road prism affecting the functionality and/or structural integrity of the road and/or road safety issues including but not limited to:

- a) Surface drainage.
- b) Sub-surface drainage (including pipe culverts).
- c) Present or potential geotechnical instability.
- d) Excessive shoulder drop-off.
- e) Intersection details.
- f) Pedestrian issues.
- g) Any evident or suspected road safety issues.
- h) Condition of bridge joints and balustrades and/or handrails.
- i) All identifiable services.
- j) Any other issues that may be glaringly evident.

The visit should include an inspection of all borrow pits and quarries identified during the initial assessment and act on any other relevant information emanating from the hand-over meeting discussions. Where any borrow pit or quarry is in any way affected by an informal settlement, the information gathered must immediately be brought to the attention of the Employer.

Major bridge structures generally, do not form part of the scope of Community Development Projects. The condition of existing major bridge structures shall thus not be inspected unless specifically listed as part of this Scope of Work, in which case the Scope of Work shall list the bridge structures to be inspected. All major and minor culverts and minor bridge structures shall however, be inspected.

C3.2.5 Identification of Statutory and Regulatory Controls

The Service Provider shall identify legislation applicable to this project and bring it to the attention of the Employer together with recommendations how compliance thereto can be incorporated into the project design. The following aspects must be dealt with at this point:

- a) Road closures arising from the design.
- b) The closure of public places that would arise from the design.
- c) The impact must be determined that the project or design will have on zoning criteria for properties in a . This is particularly relevant where such properties will be reduced in size due to the design and where such remaining portions will be in conflict with the zoning criteria.
- d) Statutory provisions relating to Mining Rights, Proclamations and De-proclamations of Provincial and Municipal Roads, the closure of streets and public places, the existence of Informal Property Rights, Traditional Authorities, etc. need to be clearly identified at this stage.
- e) Agreements with Municipality(ies)

The Employer have prepared a "generic" agreement with respect to the following:

- i) Take-over of Access Roads by a Municipality; and
- ii) Declaration of National Road through "Towns".

The above agreements are annexures to the LAC Manual and to Part C4: Appendix H of this document.

The Service Provider will be required to facilitate the conclusion of the above agreement(s) and where such agreement(s) shall be concluded prior to the commencement of any construction phase of the project.

All the above may give rise to the need to appoint other professionals such as a Land Surveyor, Town Planner, etc. to ensure formal compliance at the time of Detailed Design. The Service Provider must therefore set out the Terms of Reference with regards to each such statutory requirement in a report to the Employer having specific regard to the time frames involved and an estimate of costs in obtaining such statutory authorisation. The Employer may instruct the PSP to assist the Service Provider if it becomes evident that there are complexities that would require specialist input.

C3.2.6 Other Authorities and Stakeholders

The Service Provider shall identify all authorities and stakeholders who should be consulted about the design and implementation of this project and the degree to which liaison with each is expected. In addition, the Service Provider shall compile a list of the relevant persons, their capacity to act for such authority or body and their contact details, with whom liaison must take place but shall not commit to any meetings without first engaging the Employer to confirm how and when such meetings should be held.

Where the Project traverses land under the control of a Tribal (Traditional) Authority then the Department of Rural Development and Land Reform is to be notified and a determination and record of which officer is responsible for the area affected must be made.

Where a Project Liaison Committee (PLC) has not been established, the Service Provider under the guidance of the Employer, shall establish such a PLC within the boundary of the Project Area consisting of members as specified in clause C3.1.7.

During the development of the design and the construction phases the Service Provider shall continue these same liaison duties, including representing the Employer if so authorised and providing the Employer with written records of all liaison meetings and conversations.

Allowance has been made for these requirements in the Pricing Schedule under Additional Duties.

C3.2.7 Other Criteria

The above aspects of project assessment should not be considered as exhaustive. The Service Provider shall undertake the first phase of assessment to identify as many items as possible that will need to be considered when developing the design and the emanating scope of work, including consultation with the relevant routine maintenance service provider.

C3.2.8 Presentation of Visual Survey

The Service Provider shall, at the first progress meeting, present for discussion the findings of the visual survey that will ultimately be included in the Project Assessment Report. This meeting also serves the purpose of affording the Service Provider the opportunity to further demonstrate his understanding of the project and seek approval for proposed investigations and/or studies. The Service Provider shall also present initial design strategy proposals at this meeting.

With the release of the SARDS, the presentation of the visual survey will be based on utilising the SARDS portal by Service Provider, if applicable to this CD project.

C3.2.9 Skills and Resources Audit

As stated earlier, one of the primary objectives of this project is for the identified Community and local Targeted Enterprises to be trained and equipped with skills that can be used to gain meaningful employment and secure subcontracting opportunities.

The Service Provider shall thus undertake a skills and resources audit of the identified Community and the local Targeted Enterprises in the Project Area. The purpose of the audit is to obtain an understanding of the Community's skills, both academically and occupationally, as well as of the resources within the Community, i.e. Targeted Enterprise availability and capabilities.

This information will assist the Service Provider to develop a preliminary training and development programme and to align the design of the Works to support this training and development programme.

As a minimum, the Service Provider shall utilise the following sources of information:

- a) Statistics South Africa.
- b) Construction Industry Development Board.
- c) National Treasury's Central Supplier Database (CSD).
- d) Any other reliable source of information, e.g. the local municipality's Local Economic Development department.

C3.2.10 Project Assessment Report

A project assessment report shall be submitted for discussion at the progress meeting. The content of this report will depend on the available information and the scope of the work and may include the following aspects where applicable:

- a) Document initial scope of works and the methods and procedures required to construct and/or maintain the required condition of infrastructure.
- b) Establish the scale and cost plan for the project.
- c) Identify risks that need to be mitigated.
- d) Identify additional studies, e.g. geotechnical, survey, traffic, etc.
- e) X-section development strategy for a 20-year period.
- f) Intersection and/or interchange improvements.
- g) Appropriate Legislation.
- h) Identify stakeholders.
- i) Identify services.
- j) Existing pavement condition.
- k) Geotechnical stability.
- l) Road furniture condition and compliance.
- m) Confirm BMS assessment with recommendations (if applicable).
- n) Economic Feasibility Analysis (if applicable).
- o) Preliminary Land Report.
- p) Skills and Resources Audit.

Although all aspects are important, emphasis should be given to the materials making up the existing pavement, their current reported condition and their respective sources.

A separate Structures Assessment Report (which includes minor bridges, major culverts, lesser culverts, walls, gantries, light masts and buildings) must be submitted for new and existing structures. The report must discuss the available information, describe each structure, report on the condition assessments undertaken and the need for any maintenance and/or rehabilitation of existing structures and describe the structural constraints due to the envisaged works.

During the first part of the assessment and based purely on the information given and/or collected, the Service Provider must devise other feasible strategies for further discussion with the Employer.

C3.2.11 Measurement and Payment

Item	Description	Unit
3.2.1	Initial Assessment	
(a)	Initial Assessment	Lump Sum (LS)
(b)	Disbursements	Lump Sum (LS)

The unit of measurement under pay item 3.2.1(a) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all time related costs associated with undertaking the initial assessment.

The unit of measurement under pay item 3.2.1(b) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all disbursements, materials, printing, travel (including toll fees) and subsistence and all other costs associated with the initial assessment.

Contract price adjustment shall be applicable in accordance with clause C2.1.6.

Item	Description	Unit
3.2.2	Visual Survey	
(a)	Visual survey	Lump Sum (LS)
(b)	Disbursements	Lump Sum (LS)

The unit of measurement under pay item 3.2.2(a) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all time related costs associated with undertaking the visual survey.

The unit of measurement under pay item 3.2.2(b) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all disbursements, materials, printing, travel (including toll fees) and subsistence and all other costs associated with the visual survey.

Contract price adjustment shall be applicable in accordance with clause C2.1.6.

Item	Description	Unit
3.2.3	Project Assessment Report	
(a)	Project assessment report	Lump Sum (LS)
(b)	Disbursements	Lump Sum (LS)

The unit of measurement under pay item 3.2.3(a) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for time related costs associated with the compilation of the Project Assessment Report.

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONTRACT SANRAL C.002-025-2018/1S

CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

The unit of measurement under pay item 3.2.3(b) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all disbursements, materials, printing and all other costs associated with the Project Assessment Report.

The Service Provider shall be entitled to render interim monthly fee accounts based on progress for up to 70% of the Lump Sum. A further 20% of the Lump Sum is claimable upon delivery of the draft report. The remaining 10% of the Lump Sum is claimable upon delivery of the final report.

Contract price adjustment shall be applicable in accordance with clause C2.1.6.

C3.3 DESIGN DEVELOPMENT INVESTIGATIONS

C3.3.1 Scope

This section covers the investigations preceding any design development. This process requires investigations to be undertaken either in-house or through the appointment of relevant sub-service providers.

C3.3.2 Investigations, Sampling and Testing

Intrusive investigations are deemed to be any type of investigation that probes into or removes from the pavement layers, sub-grades, structures' elements and other areas, e.g. cuttings, etc.

Supervision of intrusive investigations shall not be delegated but shall be supervised and logged by the Key Person listed as the relevant Design Specialist.

Provision for investigations, sampling and testing has been allowed for in the Pricing Schedule.

The Service Provider shall submit for approval a schedule of proposed work for all field work, sampling and testing prior to commencement.

With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format, if applicable to this CD project.

C3.3.3 Survey Services

All survey requirements must be identified by the Service Provider as early as possible during the Project Assessment stage to ensure that there will be sufficient time to undertake these surveys. It is important that the Service Provider familiarises himself with the requirements of TMH11: Standard Survey Methods, to ensure that the survey deliverables will conform to the Service Provider's requirements.

The Employer has a continuous standing agreement with a Property Service Provider (PSP) who is tasked with providing survey services when instructed. In view of the need for all survey controls used on the national road network to be available in a single managed database the Employer requires that its PSP remains fully responsible for checking and the approval of all survey controls used on all projects.

Unless otherwise agreed, the Service Provider is required to make use of the PSP for its survey needs. The Service Provider is required to provide the type and extent of the survey and determine a reasonable timeframe for its production. A "Request for Survey Work" form is included in Part C4: Appendix G for this purpose. This request must be sent to the Employer's Regional Survey Representative for approval.

a) Procurement of the Survey Sub-service

The Service Provider shall identify all potential survey requirements during the initial and visual assessment stages, including the survey of potential borrow pits and/or quarries. Discussion of purpose and extent of the survey shall be included in the agenda of the first progress meeting to which the PSP may be invited should it be required.

While interaction between the Service Provider and the PSP will be necessary, the survey tender documents, advertising, evaluation, appointment of surveyor, payment of the surveyor, the survey project management and quality control shall be undertaken by the PSP. The Service Provider will agree to a program with the PSP, who shall be responsible for the performance of their sub-service providers.

However, if agreed that the Service Provider shall procure the survey services, a prime cost sum has been provided in the Pricing Schedule. In such a case the latest standard survey pro-forma tender document, which covers all survey types, will be made available by the PSP. Tenders shall be invited only from surveyors who are suitably registered in terms of the Geomatics Profession Act, Act 19 of 2013. The procurement of survey work shall conform to the Employer's procurement policies and procedures. The procedures as set out below shall apply after appointment of the survey contractor. The Service Provider shall then become responsible for the performance of their sub-service providers.

All surveys are to be carried out to TMH11 standards as set out in the survey pro-forma tender document.

b) Management of the Survey Sub-service Provider

- i) Whenever the Service Provider procures the survey services, the following processes shall be applied:
 - a. Call for and evaluate regular progress reports and attend relevant progress meetings.
 - b. Attend to enquiries from the survey company.
 - c. It is a requirement for the survey sub-service provider to submit a survey verification report for existing beacons prior to using their values. The verification entails the following:
 - i. Evaluate the verification survey methodology.
 - ii. Evaluate the verification residuals.
 - iii. Advise the survey sub-service provider to re-survey the existing control beacons or to adopt their values for the rest of the survey.
 - d. Receive the newly established permanent survey control survey data and co-ordinates for approval prior to the acceptance of the values for any further surveys.
 - e. The approval of the co-ordinates will entail the following:
 - i. Evaluate survey methodology for height and position determination.
 - ii. Evaluate the reduction for height and position.
 - iii. Evaluate the survey datums and the connection to other control.
- ii) When receiving completed survey data from the survey sub-service provider the following processes listed below shall be followed:
 - a. Check that all deliverables have been submitted by the survey sub-Service Provider in terms of the tender requirements.
 - b. Submit the complete data set to the PSP for quality control.
 - c. Receive quality control reports from the PSP and forward it to the survey sub-Service Provider for corrections. The date by when the corrections have to be completed must be advised by the Service Provider.
 - d. Re-submit the corrected data to PSP for verification. The entire survey has to be re-submitted each time corrections have been undertaken in order for all previous data to be destroyed.
 - e. Make payment to the survey sub-Service Provider.

C3.3.4 Traffic Monitoring Services

All traffic monitoring requirements must be identified by the Service Provider as early as possible during the Project Assessment stage to ensure that there will be sufficient time to undertake these surveys. It is important that the Service Provider familiarises himself with the requirements of TMH3: Specifications for the Provision of Traffic and Weigh-in-Motion

Monitoring Services and TMH14: South African Standard Traffic Data Collection Format, to ensure that the traffic monitoring deliverables will conform to the Service Provider's requirements.

The Employer has a continuous standing agreement with a Traffic Monitoring Service Provider (TMSP) who is tasked with providing traffic monitoring services when instructed. In view of the need for all traffic monitoring data used on the national road network to be available in a single managed database the Employer requires that its TMSP remains fully responsible for checking and the approval of all traffic monitoring data used on all projects.

Unless otherwise agreed, the Service Provider is required to make use of the TMSP for its traffic monitoring needs. The Service Provider is required to provide the type and extent of the survey and determine a reasonable timeframe for its production. A request for traffic monitoring should be submitted to the Employer, i.e. SANRAL Head Office, for the attention of A. Robinson at e-mail address: robinsona@nra.co.za.

a) Procurement of the Traffic Monitoring Service Provider

The Service Provider shall identify all potential traffic monitoring requirements during the initial and visual assessment stages. Discussion of purpose and extent of the survey shall be included in the agenda of the first progress meeting.

While interaction between the Service Provider and the TMSP will be necessary, the traffic monitoring tender documents, advertising, evaluation, appointment of the TMSP, payment of the TMSP, the project management and quality control shall be undertaken by the relevant SANRAL Head Office Project Manager (HO-PM) responsible for the TMSP, i.e. M. Van Der Walt at e-mail address vdwaltn@nra.co.za. The Service Provider will agree to a program with the HO-PM who shall be responsible for the performance of the TMSP.

However, if agreed that the Service Provider shall procure the traffic monitoring services, a prime cost sum has been provided in the Pricing Schedule. In such a case, the latest standard traffic monitoring pro-forma tender document, which covers all traffic monitoring types, will be made available by the Employer. Tenders shall be invited only from traffic monitoring Service Providers who are suitable certified in terms of TMH3 for the specific traffic monitoring system type required. The procurement of traffic monitoring work shall conform to the Employer's procurement policies and procedures. The procedures as set out below shall apply after appointment of the TMSP. The Service Provider shall then become responsible for the performance of the TMSP.

All traffic monitoring is to be carried out to TMH3 and TMH14 standards as set out in the traffic monitoring pro-forma tender document.

b) Management of the TMSP

- i) Whenever the Service Provider procures the traffic monitoring services, the following processes shall be applied:
 - a. Call for and evaluate regular progress reports and attend relevant progress meetings.
 - b. Attend to enquiries from the traffic monitoring company.
 - c. It is a requirement for the TMSP to submit a traffic monitoring report. The report entails the following:
 - i. Evaluate the survey methodology.
 - ii. Evaluate the positions for traffic monitoring.
 - iii. Advise the Service Provider to re-evaluate the proposed positions or advise on the suitability of the traffic monitoring system to be used.
 - iv. Take the necessary geocoded photographs to verify positions of traffic counts.

- v. Compile the Station Information Report.
- vi. Receive the traffic monitoring data for approval prior to the acceptance of the values for any further surveys.

When receiving completed traffic monitoring data from the TMSP the following processes listed below shall be followed:

- a. Check that all deliverables have been submitted by the TMSP in terms of the tender requirements.
- b. Submit the complete data set to the HO- PM for quality control.
- c. Receive quality control reports from the HO-PM and forward it to the TMSP for corrections. The date by when the corrections must be completed must be advised by the Service Provider.
- d. Re-submit the corrected data to the HO-PM for verification. The entire survey shall be re-submitted each time corrections have been undertaken for all previous data to be destroyed.
- e. Make payment to the TMSP.

With the release of the SARDS, the data from the traffic monitoring based on TMH 3 or 8 will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format in TMH 14, if applicable for this CD Project.

C3.3.5 Environmental Sub-service

The Service Provider shall identify all potential environmental issues relating to the envisaged scope of the Works during the assessment stage, including areas where potential borrow pits and/or quarries may be located.

The environmental sub-service provider shall distinguish between the design and construction stages. The Employer requires that the same sub-service provider fulfils the duties of the Environmental Assessment Practitioner (EAP) and later as the Environmental Control Officer (ECO), in accordance with the Mineral and Petroleum Resources Development Act (28 of 2002). The Service Provider shall use the Employer's standard documentation for the procurement of environmental sub-services.

Specialist studies identified as being necessary do not form part of normal duties, and such services may have to be separately procured, but still in accordance with the procedures for the procurement of sub-service providers.

C3.3.6 Geotechnical and Drilling Services

The Service Provider shall use the Employer's standard documentation for the procurement of geotechnical and drilling sub-services. Once appointed, the contract will be between the geotechnical and drilling sub-service provider and the Service Provider.

Supervision of the sub-service work shall only be undertaken by suitably qualified and experienced personnel. Depending on the scope and/or scale of such sub-services, supervision may be required on a full time or part time basis as determined by the Employer.

The logging of the cores and profiling of test pits are the Service Provider's responsibility. All core logging and test pit profiling are to be carried out, officially checked and signed by a suitably qualified and experienced engineering Geologist as specified in Section 38 of the COTO Standards and Specifications for Sub-service Investigations (2010).

The Service Provider's Geotechnical Engineer shall be responsible for reviewing the results of the investigations and confirming its acceptance. The Geotechnical Engineer will be involved in the planning, procurement and managing of the sub-contract. The Geotechnical Engineer will be responsible for the acceptance of data collected during the investigation including amongst others, core logs, test pit profiles, laboratory test, etc. and the production of a factual geotechnical report. In addition, the Geotechnical Engineer will be responsible for an interpretive geotechnical report as well as a design geotechnical report required for

fulfilling the design. The Geotechnical Engineer shall be involved during the construction phase in accordance with his/her obligation w.r.t. professional responsibilities and clause C3.7.2(f) Site Visits by Design Specialist(s).

C3.3.7 Other Special Services and Specialist Advice

The Employer may require other special services and specialist advice which are not included in the normal duties. These may include:

- i) road network planning studies;
- ii) traffic, axle weight and transportation studies (including traffic counts only);
- iii) economic studies;
- iv) model studies;
- v) soil mapping and seismic or similar surveys;
- vi) monitoring of road and bridge elements;
- vii) pavement surveillance surveys (e.g. FWD);
- viii) mediation, arbitration and litigation; and
- ix) land acquisition assistance provided by the PSP.

The Service Provider shall, when required by the Employer to do so, procure such other specialist services in accordance with the procedures for the procurement of sub-service providers. The Service Provider may tender for these services.

It is to be noted that, subject to the Employer's approval, the land legal advice and property acquisition assistance provided to the Service Provider by the PSP will be paid under a separate contract administered by the Employer.

In the event of "specialist advice" the reimbursable costs shall be inclusive of the investigations and analysis to provide the Employer with an appropriate technical solution. In the case of "special services" the reimbursable cost is only for the specific survey, tests or data required and exclude the analysis thereof, the cost of which shall be included in the tendered rates for design.

Provision for payment of other special services and specialist advice are provided in Section C3.8: Additional Duties. Where investigations are to be undertaken, the Service Provider shall compile a schedule of required work, which shall be subject to the approval of the Employer, before any investigation may commence.

C3.3.8 Specialist Transportation Engineering Service

For projects requiring basic analyses of traffic volumes and trends, or capacity improvements involving geometric designs that are basically extensions to existing road infrastructure, a Design Specialist will not be specified as part of the Key Persons. However, for more complex green-fields projects, a Design Specialist may be specified as part of the Key Persons. In both cases the cost for this service shall be deemed to be included in the rates tendered for design.

C3.3.9 Specialist Geometric Design Service

For projects requiring basic geometric analyses of traffic volumes and trends, or capacity improvements involving geometric designs that are basically extensions to existing road infrastructure, a Design Specialist will not be specified as part of the Key Persons. However, for more complex projects, a Design Specialist will be specified as part of the Key Persons. In both cases the cost for this service shall be deemed to be included in the rates tendered for design.

C3.3.10 Materials Investigation and Testing

a) Test Pits

All test pits shall be excavated, profiled and sampled in accordance with the M1 Manual and industry best practice. The dimensions of the excavation shall be sufficient to permit safe working conditions and to allow for adequate quantities of material to be sampled from each horizon for the envisaged testing. All test pits shall be excavated to a minimum depth of 800mm, or deeper if so specified by the Design Engineer.

All test pits shall be backfilled utilizing material which is at least of a similar quality as that removed from the relevant horizon. The upper 150mm horizon shall consist of at least G2 quality material stabilized with 2% emulsion and 1% cement. The surfacing shall consist of hot or cold asphalt or prefabricated seal patches as appropriate to the existing surfacing and traffic or road class. Compaction shall be by appropriate compaction equipment in layers not exceeding 150mm.

With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface, if required for this CD project.

b) Dynamic Cone Penetration (DCP) Testing

Dynamic Cone Penetration (DCP) testing shall be carried out in accordance with the standard test method. Appropriate drilling equipment shall be utilized to penetrate asphalt, highly stabilized or cemented layers prior to proceeding with the testing. Results of DCP testing shall be produced in a format enabling full assessment of the various pavement layers to be assessed.

With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface, if required for this CD project.

c) Coring in Pavement Layers

Where required and scheduled, coring shall be carried out utilizing appropriate equipment. The layer type and diameter of the cores shall be as specified in the pricing schedule.

d) Transport of Samples to Laboratory

All samples shall be securely fastened, labelled and transported to the laboratory appointed to carry out the required testing. Distinction has been made in the Pricing Schedule between large bags and small bags or cores.

With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface, if required by this CD project.

e) Laboratory Testing

Only SANAS accredited laboratories shall be permitted to carry out laboratory testing of materials. All testing shall be carried out in accordance with the methods specified in the relevant test methods.

Provision for the costs of any laboratory testing has been included under specific tests and/or under a provisional sum item in the Pricing Schedule.

With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface, if required for this CD project.

C3.3.11 Measurement and Payment

Item	Description	Unit
3.3.1	Survey Services	
	(a) Survey services when procured by Service Provider	Prime Cost (PC)
	(b) Cost for procuring and managing sub-service provider under sub-item 3.3.1(a)	Lump Sum (LS)
	(c) Cost when making use of SANRAL's Property Service Providers	Lump Sum (LS)

The Prime Cost under sub-item 3.3.1(a) shall be paid in accordance with Clause C2.1.8

The unit of measurement under sub-item 3.3.1(b) shall be the Lump Sum. The Lump Sum tendered shall only be applicable where such service is carried out under the Prime Cost Sum and shall include for all costs associated with the planning, compiling a schedule of all envisaged survey work, compilation of quotation or tender documentation for procurement purposes, issuing of up to 20 (twenty) quotation or tender documents in electronic format and evaluation for the procurement of the sub-service and recommendations to the Employer including management cost, administrative cost, handling fees and profit.

The unit of measurement under sub-item 3.3.1(c) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all costs associated with making use of SANRAL's Property Service Providers as specified in Clause C.3.3.3.

Contract price adjustment shall be applicable to sub-items 3.3.1(b) and (c) in accordance with Clause C2.1.6.

Item	Description	Unit
3.3.2	Traffic Monitoring Services	
	(a) Traffic monitoring services when procured by Service Provider	Prime Cost (PC)
	(b) Cost for procuring and managing sub-service provider under sub-item 3.3.2(a)	Lump Sum (LS)
	(c) Cost when making use of SANRAL's Traffic Monitoring Service Providers (TMSP)	Lump Sum (LS)

The Prime Cost under sub-item 3.3.2(a) shall be paid in accordance with Clause C2.1.8.

The unit of measurement under sub-item 3.3.2(b) shall be the Lump Sum. The Lump Sum tendered shall only be applicable where such service is carried out under the Prime Cost Sum and shall include for all costs associated with the planning, compiling a schedule of all envisage traffic monitoring work, compilation of quotation or tender documentation for procurement purposes, issuing up to 20 (twenty) quotation or tender documents in electronic

format and evaluation for the procurement of the sub-service and recommendation to the Employer including management cost, administration cost, handling fees and profit.

The unit of measurement under sub-item 3.3.2(c) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all costs associated with making use of SANRAL's TMSP as specified in Clause C3.3.4.

Contract price adjustment shall be applicable to sub-item 3.3.2(b) and (c) in accordance with Clause C2.1.6.

Item	Description	Unit
3.3.3	Environmental Service	
	(a) Environmental services during design stage	Prime Cost (PC)
	(b) Cost for procuring and managing sub-service provider under sub-item 3.3.3(a)	Lump Sum (LS)

The Prime Cost under sub-item 3.3.3(a) shall be paid in accordance with Clause C2.1.8

The unit of measurement under sub-item 3.3.3(b) shall be the Lump Sum. The Lump Sum tendered shall include for the initial assessment as specified in Clause C3.2.3. as well as all costs associated with the planning, scheduling, compilation of quotation or tender documentation, issuing of up to 20 (twenty) quotation or tender documents in electronic format and evaluation for the procurement and management of the sub-service including administrative cost, handling fees and profit.

Contract price adjustment shall be applicable to sub-items 3.3.3(b) in accordance with Clause C2.1.6.

Item	Description	Unit
3.3.4	Geotechnical and Drilling Services	
	(a) Geotechnical and/or drilling investigations	Prime Cost (PC)
	(b) Handling cost for planning and procuring geotechnical and/or drilling services	Lump Sum (LS)
	(c) Administration and monitoring of the geotechnical and/or drilling contract by the Engineer	Month
	(d) Supervision of the work	
	(i) Full time supervision	Provisional Sum (PS)
	(ii) Engineering Geologist for logging of cores and profiling of test pits	Month
	(iii) Accommodation cost	Provisional Sum (PS)
	(iv) Occupational health and safety obligations (continuous compliance and monthly audits)	Month
	(e) Geotechnical and drilling contract	
	(i) Geotechnical and drilling contractor	Prime Cost (PC)

	(ii)	Handling cost for planning, procuring geotechnical and drilling contractor i.r.o. item 3.3.4(e)(i)	Lump Sum (LS)
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The Prime Cost under sub-item 3.3.4(a) shall be paid in accordance with Clause C2.1.8.

The unit of measurement under sub-item 3.3.4(b) shall be the Lump Sum. The Service Provider shall identify the full scope of the sub-service investigation(s), type and estimated quantity of tests required and shall compile quotation or tender documents in accordance with the Employer's standard requirements, procurement policy and industry best practices for procuring the relevant sub-service. The Lump Sum tendered shall include full compensation for personnel, transport, accommodation, materials, printing and all other costs associated with the compilation of quotation or tender documents, issuing quotation/tender documents, clarification meetings, evaluation and producing a tender evaluation report.

The unit of measurement under sub-item 3.3.4(c) shall be the Month or part thereof and the rate tendered shall include full compensation for the Engineer's cost including all subsistence, travel, accommodation, meeting attendance and other costs associated with administration and monitoring of the geotechnical and/or drilling investigation, including preparation and submission of the contractor's payment certificates.

The Provisional Sum under sub-item 3.3.4(d)(i) shall cover all monthly costs for personnel including all subsistence and travel costs associated with providing full time supervision of the work.

The unit of measurement under sub-item 3.3.4(d)(ii) shall be the Month or part thereof and the rate tendered shall include full compensation for all personnel costs including all subsistence and travel costs associated with providing an Engineering Geologist for the logging of cores.

The Provisional Sum under sub-item 3.3.4(d)(iii) shall cover all costs associated with the accommodation for full time supervision personnel and the Engineering Geologist.

The unit of measurement under sub-item 3.3.4(d)(iv) shall be the Month or part thereof and the rate tendered shall include full compensation for all costs, including personnel, transport, accommodation and subsistence for the Occupational Health and Safety Specialist for fulfilling the Service Provider's obligations as the Agent with respect to the requirements of the Construction Regulations of the Occupational Health and Safety Act (Act 85 of 1993).

The unit of measurement under sub-item 3.3.4(e)(ii) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for personnel, transport, accommodation, materials, printing and all other costs associated with the compilation of quotation/tender documents, issuing quotation/tender documents, clarification meeting, evaluation and producing a tender evaluation report.

Contract price adjustment shall be applicable to sub-items 3.3.4(b), 3.3.4(c), 3.3.4(d)(ii), 3.3.4(d)(iv) and 3.3.4(e)(ii) in accordance with Clause C2.1.6.

Item	Description		Unit
3.3.5	Pavement Investigation and Sampling		
	(a)	Establishment of personnel and equipment for test pitting	Lump Sum (LS)
	(b)	Pavement test pit, sampling and profiling	Number

	(c)	Dynamic Cone Penetration (DCP)	Number
	(d)	Cores in asphalt layers (100/150 mm dia)	Number
	(e)	Cores in concrete layers (100/150 mm dia)	Number
	(f)	Transport of samples to laboratory	
	(i)	Large bags	Number
	(ii)	Small bags or cores	Number

The unit of measurement under pay item 3.3.5(a) shall be the Lump Sum. The Lump Sum tendered shall cover all costs associated in establishing an appropriately sized team on site to carry out the scheduled test pit programme. The rate tendered shall be fixed irrespective of the final number of test pits excavated.

The unit of measurement under pay item 3.3.5(b) shall be the Number of test pits excavated, sampled and profiled or photographed by the Design Specialist. With the release of the SARDS, the Service Provider will be required to follow the Standard workflow within SARDS to determine the number and locality of testing required. The data shall be uploaded into the SARDS portal by the Service Provider as per the defined standard format or SARDS interface.

The rate tendered shall include for the safeguarding of the test pits whilst open, all costs including travel, labour, accommodation, subsistence, plant, materials, sample bags, etc. associated with the excavation, profiling and sampling of test pits and subsequent backfilling and compaction thereof as specified.

The unit of measurement under pay item 3.3.5(c) shall be the Number of DCP tests at locations identified by the Design Specialist. With the release of the SARDS, the Service Provider will be required to follow the Standard workflow within SARDS to determine the number and locality of testing required. The data shall be uploaded into the SARDS portal by the Service Provider as per the defined standard format or SARDS interface.

The rate tendered shall include for drilling through any "refusal" layers, completing the test and submission of the DCP analysis to the Design Specialist.

The unit of measurement under pay items 3.3.5(d) and (e) shall be the Number of cores in asphalt and/or concrete at locations identified by the Design Specialist irrespective of the thickness of the core. With the release of the SARDS, the Service Provider will be required to follow the Standard workflow within SARDS to determine the number and locality of testing required. The data shall be uploaded into the SARDS portal by the Service Provider as per the defined standard format or SARDS interface.

The rates tendered shall include for all costs including labour, transport, coring rig, backfilling of core holes, accommodation, subsistence, etc. The rates tendered shall be fixed, irrespective of the length of the core extracted.

The unit of measurement under pay item 3.3.5(f) shall be the Number of large bags and/or small bags or cores transported. The rates tendered shall include for all costs to transport the bags and/or cores to the laboratory selected to carry out the testing, irrespective of distance.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description	Unit
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3.3.6	Laboratory Testing and Reporting		
	(a)	Standard tests as listed in the Pricing Schedule	Number
	(b)	Laboratory testing where no schedule is available, or specialised testing	Prime Cost (PC)
	(c)	Handling costs i.r.o. pay item 3.3.6(b)	Percentage (%)

The unit of measurement under pay item 3.3.6(a) shall be the Number of tests prescribed by the Design Specialist and carried out by the laboratory. The rates tendered shall cover all costs associated in completing the individual tests and shall include for all calculations and reporting. Any tests proven to be erroneous shall not be paid for.

The Prime Cost under pay item 3.3.6(b) shall be paid in accordance with Clause C2.1.8. The Service Provider shall identify the type and estimated quantity of tests required and shall compile a quotation document in accordance with the Employer's standard requirements and policies to procure the service.

The unit of measurement under pay item 3.3.6(c) shall be the Percentage. The percentage tendered is a percentage of the amount spent under payment item 3.3.6(b) and shall include full compensation for all costs of the Service Provider as specified.

Where the prior identification of materials testing requirements is not possible, a Provisional sum has been included in the Pricing Schedule for the procurement of such services. Where testing is carried out under a Provisional Sum the percentage handling fee tendered in the Pricing Schedule shall include for all the Service Provider's costs associated with:

- a) compiling a schedule of all envisaged work;
- b) production of a document for procurement purposes (including printing etc.);
- c) calling for quotations and/or tenders;
- d) evaluation of quotations and/or tenders received and recommendations to the Employer;
- e) handling fees; and
- f) profit.

Procurement of such services shall be in accordance with clause C3.1.12.

Contract price adjustment shall be applicable to sub-item 3.3.6(a) in accordance with Clause C2.1.6.

C3.4 DESIGN DEVELOPMENT STAGE

C3.4.1 Scope

This section covers the requirements for the compilation and submission of a Concept and/or Preliminary and/or Detailed Design and the various phases that the Service Provider may have to apply to develop the design in such a way that the Employer is provided the opportunity to select the most appropriate design strategy.

a) Design Guidelines

It is a fundamental requirement that the Service Provider has a thorough working knowledge of the Employer's complete suite of design standards, codes, manuals and guidelines (i.e. those that it publishes and those for which it provides an industry custodianship), which shall be used in the production of the designs in all their separate phases. In addition, the Service Provider shall apply any other industry best practice publication that may be appropriate. Furthermore, the Employer's philosophy of appropriate standards and cost effectiveness shall always be considered.

b) Training and Development Guidelines

In addition, the Service Provider shall have a thorough knowledge and understanding of the Employer's Transformation Policy, Community Development Strategy, Community Development pro-forma for Training and Construction Managers, CIDB Standard for Developing Skills through Infrastructure Contracts, and any other documents provided by the Employer that assist in the enhanced Training and Development of local Communities and Targeted Enterprises.

For each stage of the design development, the enhanced training, development and utilization of local Communities and Targeted Enterprises shall form the foundation of the design development strategy.

C3.4.2 Design Development Strategy

On completion of the project assessment stage and before findings from further investigations and sub-services are available, the Service Provider shall discuss with the Employer and confirm the design development strategy that will be applied.

New work (i.e. predominantly 'greenfield' projects that require route determination and/or new structures for which aesthetics and service are not fixed) may require development through separate multiple phases of concept, preliminary and detailed designs.

Many capital expenditure projects that require capacity improvements, in addition to rehabilitation and or repair, may require development through the separate multiple phases of preliminary and detailed designs.

Some capital expenditure projects, and most operational expenditure projects, will only require the single phase of detailed design development.

The purpose of confirming the total strategy to be applied is based on the precept that public funds must be wisely spent, and it may occur that the details emerging from the project assessment dictate that development through multiple phases is not required. Any decision not to proceed with either the conceptual or preliminary phases shall not give cause for a Service Provider to request or demand an adjustment to its pricing structure. Each development phase is distinctly separate and thus shall be priced in such a way that no cross-subsidisation between them occurs.

Conversely, any decision to introduce an additional development phase shall be subject to pricing variation.

C3.4.3 Investigations, Sampling and Testing

Intrusive investigations are deemed to be any type of investigation that probes into or removes from the roadbed, borrow pits, quarries, structure founding materials and other areas, e.g. cuttings, etc. Investigations, both intrusive and non-destructive, sampling as well as associated laboratory testing, must be approved by the Employer before they are undertaken.

The Service Provider shall initially identify and then determine the viability of sources for the supply of materials by arranging for test pits, samples, laboratory testing and reporting on them. The investigations may involve drilling, both by percussion and core recovery if needed to prove new sites or extensions to existing pits. Depending on the locality of the project site, the investigation of materials sources shall include the use of commercial sources as well as existing and/or new sources on, alongside or near the project site. This will require sampling and testing of the commercial products. When the project demands crushed stone products the investigation of more than one source shall be required. Where intrusive investigations are required to be carried out on land not under the control and/or jurisdiction of the Employer, suitable arrangements must be made with the Land Owner, Authority etc. In this regard, the Service Provider must refer to the LAC Manual and in particular to those sections dealing with access onto land.

Supervision of intrusive investigations shall not be delegated but shall be supervised and logged by the Key Person listed as the relevant Design Specialist.

Provision for investigations, sampling and testing has been allowed for in the Pricing Schedule.

The Service Provider shall submit for approval a schedule of proposed work for all field work, sampling and testing prior to commencement.

With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface, if applicable to this CD project.

C3.4.4 Materials Investigation and Testing

a) Test Pits

All test pits shall be excavated, profiled and sampled in accordance with the M1 Manual and industry best practice. The dimensions of the excavation shall be sufficient to permit safe working conditions and to allow for adequate quantities of material to be sampled from each horizon for the envisaged testing. All test pits shall be excavated to a minimum depth of 800mm, or deeper if so specified by the Design Specialist: Pavements and Materials.

All test pits shall be backfilled utilizing excess material excavated and additional material to ensure that there will be no unsafe depressions. The backfill shall be compacted sufficiently to ensure that no significant settlement occurs subsequent to completion of the investigation.

All test pits that are required to be left open and unattended shall be secured by means of appropriate fencing and danger tape.

At the commencement of excavation, all topsoil shall be stockpiled separately and replaced after completion of the backfilling operation.

With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface, if applicable to this CD project.

b) Dynamic Cone Penetration (DCP) Testing

Dynamic Cone Penetration (DCP) testing shall be carried out in accordance with the standard test method. Results of DCP testing shall be produced in a format enabling full assessment of the various pavement layers to be assessed.

With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface, if applicable for this CD project.

c) Hire of Excavator

Where an excavator is required to excavate the test pits, the Service Provider shall determine the capacity of such plant appropriate to the expected material category and depth of excavation.

The excavation of test pits by mechanical means shall be done in such a manner to prevent any contamination of the specific soil and/or gravel horizons encountered.

d) Transport of Samples to Laboratory

All samples shall be securely fastened, labelled and transported to the laboratory appointed to carry out the required testing. Distinction has been made in the Pricing Schedule between large bags and small bags or cores.

e) Laboratory Testing

Only SANAS accredited laboratories shall be permitted to carry out laboratory testing of materials. All testing shall be carried out in accordance with the methods specified in the relevant test methods.

Provision for the costs of any laboratory testing has been included under specific tests and/or under a Provisional Sum item in the Pricing Schedule.

With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface, if applicable to this CD project.

C3.4.5 Concept Design

This development phase requires the Service Provider to produce multiple concepts (not less than three) for consideration. Each concept shall be complete in context with the purpose of the project within which there may be further smaller refinements. Refinements of a single concept are not considered to be multiple concepts.

The duties to be performed include, but are not limited to, the following:

- a) Provide a programme for documentation and for implementation of the training, development and construction works.
- b) Include a skills and resources audit report of the local and/or identified Community's academic and occupational skills and the local Targeted Enterprise availability and capabilities.
- c) Include a concept training and development programme for the identified Community and local Targeted Enterprises, which is outlined, based on the concept design alternatives.
- d) Include a baseline risk assessment and a health and safety specification.

- e) Include an operations and maintenance support plan over the service life.
- f) Establish the feasibility of satisfying the original scope of works within the original budget, and if not, motivate a revised scope and/or budget.
- g) Consultation with the Employer or its authorised representatives.
- h) Inspection of the site of the Works.
- i) Identify and discuss with the Employer all the technical inputs which will be researched and applied.
- j) Consider alternatives and advise the Employer of advantages and disadvantages, including reference to land use and acquisition feasibilities as required by the Employer. To assist the Service Provider with the Land Use and Land Acquisition Feasibilities, the Employer may request the PSP to conduct a Land Audit. This will generally be determined by the complexities evident from the project assessment conducted by the Service Provider and/or from the initial documentation provided by the Employer to the Service Provider;
- k) Preliminary investigation, route location and design where any of these are required for determination of feasibility. Included in these can be traffic (including non-motorised transport and pedestrians) densities, road geometry including cross-sections and longitudinal sections, drainage needs, materials availability, pavement requirements, structural requirements. Also establish access, utilities, services and connections required for the design. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface and then analysed using SARDS, if applicable to this CD project.
- l) Consultation with authorities having rights or powers of sanction, as well as consultation with the public, project Stakeholders and affected and/or identified Communities.
- m) Advice to the Employer as to the need for surveys of any kind, analysis, tests and site or other investigations where such are to be carried out at the Employer's expense including a risk report associated with the need.
- n) Searching for, obtaining, investigation and collation of available data, drawings and plans relating to the Works.
- o) Investigations, as may be required, of economic and financial implications in relation to the proposals or feasibility studies and the confirmation of the financial sustainability thereof.
- p) Advice to the Employer as to regulatory and statutory requirements including environmental issues and management.
- q) Produce drawings depicting the designs, particularly those for route alignments. However, they need not contain full design layout details, but must show the basic road geometry and cross-drainage. Full structural drawings are not necessary and only need to show the basic layouts accompanied by loading calculations indicating the type of foundation necessary.
- r) Compile a Concept Design report to be submitted at a progress meeting. The report shall, as a minimum, cover the aspects listed under the duties above.
- s) Preparing, reporting and presenting the alternatives to the Employer's Regional Gateway Review Committee for project cost higher than R100 million.

C3.4.6 Preliminary Design

The purpose of preliminary design is to develop more than one option for presentation to the Employer for selection of that which is the most appropriate based on technical functionality and economic benefit. The selected option(s) will then be further developed in the detailed design phase.

For projects that commence with this design phase, the Service Provider shall, using the findings of the project assessment and investigations or concept design already conducted, identify problem areas, provide comprehensive evidence that their underlying cause is understood and propose appropriate corrective or reparative remedies. These proposals will accompany others for multiple design methodologies that are considered appropriate to the project including identification of their respective technical inputs. All proposals shall be discussed with the Employer. At least 3 (three) different methodologies must be proposed

not all of which need to include identified remedies. Proposed methodologies should separately deal with elements relating to capacity improvements so that these may be individually developed together with the methodologies so that the Employer is presented with an array of design options from which to make decisions for progression to detailed design.

The duties to be performed include but are not limited to the following:

- a) Provide a programme for documentation and implementation of the training, development and construction works.
- b) Include a skills and resources audit report of the local and/or identified Community's academic and occupational skills and the local Targeted Enterprise availability and capabilities.
- c) Include a preliminary training and development programme for the identified Community and local Targeted Enterprises, which is outlined, based on the preliminary design alternatives.
- d) Include a baseline risk assessment and a health and safety specification.
- e) Include an operations and maintenance support plan over the service life.
- f) Establish the feasibility of satisfying the original scope of works within the original budget, and if not, motivate a revised scope and/or budget.
- g) Include a technology (alternatives) options assessment.
- h) Include a regulatory due diligence (compliance with various regulations and required statutory permissions impacting this project).
- i) Advising the Employer as to the need for any further surveys of any kind, analysis, tests and site or other investigations which may be required and arranging for these to be carried out at the Employer's expense including a risk assessment and sensitivity analysis associated with the need.
- j) Advising the Employer regarding environmental requirements and management plans and attending to the same.
- k) Advising the Employer, as may be necessary, upon the appointment of and brief to other professional engineers, architects and specialist advisers and arranging such appointments and consultations with such advisers in matters affecting the works.
- l) Preparation of preliminary design plans and other drawings in accordance with the Employer's current Codes, Manuals and Guidelines necessary for seeking approval of statutory authorities and beaconing of the road reserve. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface and then analysed using SARDS, if applicable to this CD project.
- t) Consultation on technical matters with authorities and interested and affected parties, as well as consultation with the public, project Stakeholders and affected and/or identified Communities.
- m) Making modifications to the preliminary design of the works based on, or dictated by, the consultations aforesaid.
- n) Identification and reporting on services and owners as well as relocations and/or protection measures required.
- o) Submission of estimates of capital and life cycle costs and economic and financial implications in relation to the proposals and the confirmation of the financial sustainability thereof.
- p) Conduct a Land Audit as per the LAC Manual of each Route under consideration. The Service Provider must produce a high-level property report, including the land required for material sources. This report must identify at the very least the following:
 - i) Property type.
 - ii) Ownership type.
 - iii) Title type.
 - iv) Informal rights.
 - v) Informal settlements.
 - vi) Mining rights.
 - vii) Real rights (servitudes, etc.).
 - viii) Jurisdiction of affected non-National Roads.

- ix) Traditional (Tribal) Authorities and their jurisdiction.
- x) Municipal Authorities.
- xi) Affected streets and public places.
- xii) Proclaimed forestry, conservation, irrigation, etc. areas.

In addition, the Service Provider must undertake a high-level Land Acquisition cost analysis, inclusive of the land required for material sources.

The Service Provider shall at this stage ensure that relevant one-on-one consultations with affected land owners are conducted including the holders of formal, informal rights and all other rights as defined above. Where land is in the ownership of the State (Municipal, Provincial or National) or other State Authorities, the Service Provider shall attend on such authorities to give notice of the intention to acquire portions of or the whole of such properties. The impact of the routes on such rights must be clearly documented in the report.

Regarding all of the above, the Employer may instruct the PSP to assist the Service Provider if it becomes evident that there are complexities that would require specialist input.

The Employer must be advised immediately if there is evidence of unlawful occupation of land along the proposed Routes and on land earmarked for material sources.

- q) Compilation and submission of a Preliminary Design Report and if required a Preliminary Materials Report.
- r) A separate Geotechnical Report must be submitted where geotechnical investigations are required.
- s) A separate Drainage Report will be needed for each Bridge and Major Culvert and shall form part of the first stage submission as described above.
- t) Preparing, reporting and presenting the alternatives to the Employer's Regional Gateway Review Committee for project costs higher than R100 million.

Unless the project terminates at the preliminary design stage, drawings produced to depict the various elements of the design methodologies need not follow the exacting standards for final drawings. However, they shall be comprehensive in their detail so that they accurately reflect the design outcomes. The size of drawings is similarly not prescriptive. Structural drawings shall comply with the standards set in the Employer's publication *Code of Procedures for the Planning and Design of Highway and Road Structures in South Africa*. Notwithstanding the aforesaid, sketches and hand-drawn depictions will not be accepted, but they shall be professionally drawn.

C3.4.7 Detailed Design

The Employer will select from the outcome of the project assessment stage or preliminary design phase, the design option and other possible design elements that are to be developed to detailed design.

The duties to be performed include but are not limited to the following:

- a) Provide a programme for documentation and implementation of the training, development and construction works;
- b) Include a skills and resources audit report of the local and/or identified Community's academic and occupational skills and the local Targeted Enterprise availability and capabilities.
- c) Include a detailed training and development programme for the identified Community and local Targeted Enterprises, which is outlined, based on the detail design.
- d) Include a baseline risk assessment and a health and safety specification.
- e) Include an operations and maintenance support plan over the service life.
- f) Establish the feasibility of satisfying the original scope of works within the original budget, and if not, motivate a revised scope and/or budget.
- g) Include a technology (alternatives) options assessment.

- h) Include a regulatory due diligence (compliance with various regulations and required statutory permissions impacting this project).
- i) Advise the Employer as to the necessity for setting out or staking out the works, establishment of construction beacons.
- j) Advise the Employer as to the need for any further surveys of any kind, analysis, tests or other investigations which may be required and arranging for these to be carried out including a risk assessment and sensitivity analysis associated with the need.
- k) Advise the Employer regarding environmental requirements and management and attending to same as agreed with the Employer.
- l) Preparation of designs inclusive of all calculations, drawings, project specifications and Engineering schedules of quantities in accordance with the requirements of the Employer's current appropriate Codes, Manuals and Guidelines; including labour maximisation/optimisation in all phase of the design as per COTO specifications. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of testing required. The data will need to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface and then analysed using SARDS, if applicable to this CD project:
- m) Estimates of the cost of the works, using the unit rates of the Employer's database if applicable.
- n) Identify and advise the Employer on communication channels, employment forums and issues impacting on the design.
- o) The timeous arrangement for the relocation of any services which may disrupt the construction programme. This may include relocation of services prior to construction stage.
- p) Conduct a Detailed Land Audit as per the LAC Manual of the entire project area.

The Employer may instruct the PSP to assist the Service Provider if it becomes evident that there are complexities that require specialist input

With regards to this land audit, the Service Provider must produce a detailed report for each property along the route and all land required for material sources. This report must identify, at the very least, the following:

- i) Property type.
- ii) Ownership type.
- iii) Title type.
- iv) Informal rights.
- v) Informal settlements and/or illegal occupation of land.
- vi) Mining rights.
- vii) Real rights (servitudes, etc.).
- viii) Jurisdiction of affected non-National Roads.
- ix) Traditional (Tribal) Authorities and their jurisdiction.
- x) Municipal Authorities.
- xi) Affected streets and public places and where such streets and public places may be impacted on and/or closed.
- xii) Proclaimed forestry, conservation, irrigation, etc. areas.

The Service Provider shall, at this stage, conduct one-on-one consultations with each land owner affected by the project and with the holders of formal and informal rights and indeed all other rights as defined above. Where land is in the ownership of the State (Municipal, Provincial or National) or other State Authorities, the Service Provider shall accompany the PSP when meeting with such authorities to deal with aspects raised by such authorities and where such aspects are of a Technical/Design nature. In this regard, careful reference must be made to the formalities as described in the LAC Manual.

It is emphasised that the purpose of this interaction is to reach consensus with each land owner so affected with regards to the impact that the land acquisition will have on his property and to his entitlements and to clearly determine the conditions under which the land owner will be willing to sell the land required.

This is expanded on further in this document below. In this regard, the Employer must be advised immediately if there is evidence of unlawful occupation of land along the proposed route and on land earmarked for material sources.

The revised road reserve must be determined and have the Employer's approval.

The Service Provider shall then compile a detailed Property Report as defined in the LAC Manual and transmit same to the Employer's Project Manager and to the relevant Regional Survey Representative for their consideration and formal approval. Only on approval of the Detailed Property Report will it be transmitted to the PSP who will then commence with the preparation and approval of Land Acquisition Diagrams and the necessary amended Declarations relating to the final road reserve.

- q) Submit the necessary design documentation to local and other authorities for approval, if required.
- r) Consultation on and incorporation of, where applicable, technical matters with raised by authorities and interested and affected parties.
- s) Compilation and submission of a Detailed Design Report and if required a Materials Report.
- t) Submission of Economic Feasibility Analysis (where required) and confirm the financial sustainability of the project.

If the project requires only the detail design phase, the Service Provider shall, using the findings of the project assessment and investigations or designs already conducted, identify problem areas, provide comprehensive evidence that their underlying cause is understood and propose appropriate corrective or reparative remedies. The Service Provider shall also identify which elements of the aforesaid publications will be applied and discuss them with the Employer before proceeding with development of the design to finality.

Detail design requires the drafting of a final project specification that will be incorporated into a full tender document adopted from the Employer's pro-forma tender document. A full set of drawings complying with the Employer's latest drawing standards shall be presented for signature. The Service Provider shall be aware of the Employer's procedures for iterative presentations of drawings for approval, signature, archiving and amendment to include the as-built record. The process is also available on the Employer's website www.nra.co.za.

Guidelines for drawings are contained in TMH11: Standard Survey Methods (latest version) published by the Committee of Transport Offices (COTO). This reference contains all the relevant information relating to grid intervals, topographical detailing, symbols, colours, weight, and letter sizes etc. and acts as the standard to be used for draughting drawings for use by a contractor.

C3.4.8 Occupational Health and Safety (OHS) Requirements

The Service Provider shall at all stages of the design development identify elements of the design that are inherently dangerous or hazardous during the construction phase and design in such a manner as to mitigate or eliminate the risk where possible. At the culmination of each development phase all identified dangers and/or hazards shall be listed and brought to the attention of the Employer and agreed hazards shall be emphasised and given prominence by way of notification on the drawings and separately listed in the respective phase-end reports. They shall appear in the drawings and the tender document for issue to a contractor.

For example, shoring of unstable excavations is the Designer's responsibility to identify and notify of the health and safety risk.

C3.4.9 Environmental Requirements

Throughout the development of the project design the Service Provider shall liaise closely with the appointed EAP as he/she performs the environmental sub-service. It is desirable

that the EAP accompanies the Service Provider to the regular progress meetings to ensure accurate reporting on the state of the application for environmental approvals. The compilation of the various Environmental Management Programmes (EMPrs) that the respective relevant authorities require shall be modelled on the Employer's standard Environmental Management Plan with as little deviation from it as possible. Any adaptation or change shall be reported to the Employer for approval and later incorporation into the contract document.

Any cause derived from these EMPrs that requires incorporation into the design shall similarly be reported to the Employer for approval.

C3.4.10 Land Requirements

a) Property Report

A comprehensive and detailed Property Report shall be compiled in accordance with the Employer's standard requirements. This Property Report shall deal with all aspects relating to each individual portion of land required for the project, including all material resources and it is emphasised that the procedures as contained in the Land Acquisition Guideline Manual for Consulting Engineers, which is available on the Employer's web page (www.nra.co.za), shall be followed without exception.

With reference to all 'material sources' and where a "Borrow Pit" and/or "Quarry" site is identified for acquisition (permanent or temporary) such site shall be named with reference to its kilometre distance of the road design and pre-fixed with a "L" or "R" e.g. Borrow Pit L29.100.

The Property Report will be considered by the Employer's Project Manager and the Regional Survey Representative. Should the Property Report be found to be incomplete and/or contain erroneous information, it will be returned to the Service Provider for his immediate attention and action. Once the Property Report has been approved by the Employer, it will be sent to the PSP who will conduct checks to discover any errors or omissions.

Although the PSP performs checks on property reports, the responsibility for the completeness and accuracy of property reports lies with the Service Provider. The PSP is able to identify errors in property reports only insofar as they are reasonably discoverable and will report any such errors found to the Employer's Project Manager and/or Regional Survey Representative as soon as any may be found. The Employer reserves its right to recover the costs of any claims for delays suffered by the Training and Construction Manager in getting access to Site or to portions of the Site that are attributable to the erroneous property reports submitted by the Service Provider. It must be noted that the 9 (nine) month period required to complete the Land Acquisition process to the point where "Site Access" has been achieved cannot commence until a Property Report is complete and correct in all respects. Any delay in correctly completing a Property Report will delay the commencement of the acquisition process and very often, also delay access to site. Late changes in design have the same effect as submitting incomplete or erroneous Property Reports.

The Service Provider must carefully consider the relevant sections in the LAC Manual that deal specifically with Tribal Land and determine if any land is subject to the authority of a Tribal (Traditional) Authority at the earliest possible time in the Design Process (if this has not already been determined under a previous phase).

Individuals hold informal and community rights over Tribal Land. Consequently, the Service Provider must ensure that he is fully conversant with the Interim Protection of Informal Land Rights Act, Act 31 of 1996 and the procedures contained therein. These rights are not registered and recorded in a Deeds Office. On-site meetings must therefore be held with the affected communities and their leadership to determine the extent and nature of their rights. The exact impact that the project will have on their rights must be clearly determined in community meetings to avoid

conflict at the time that the PSP undertakes the acquisition and determines the compensation due. The Property Report must define each right affected, identify the boundaries and ownership thereof and clearly record all information related to these rights.

The Employer may request the PSP to engage with the Service Provider at an early stage in the Design Process to assist the Service Provider to deal with complex land rights and to provide specialist input where required. Where the Service Provider is in any doubt concerning how to deal with specific complexities relating to the above, the Service Provider may also discuss these circumstances with the Employer who may then engage the PSP for specialist assistance.

Every 2 (two) months, in each of its Regions, the Employer holds Land Acquisition co-ordination meetings. At these meetings, every project involving Land Acquisition is discussed in detail and problems focused on. The Service Provider shall ensure that a senior representative attends these meetings until the Land Acquisition process has reached the stage where access to site is confirmed.

The Service Provider shall meet with every land property owner whose property or rights therein may be required or impacted upon by the project. Whilst the Service Provider **may not** engage in any negotiations with respect to financial compensation (value) the Service Provider must ensure that each owner is made aware of the extent of land required, and the consequences that the project may have on matters such as the access, boreholes, irrigation system, parking, frontage of buildings and the like, all in accordance with the relevant sections in the LAC Manual. The document that the land owner is required to sign must be carefully completed to minimise any additional issues that may be raised when the PSP engages with the land owner to negotiate the terms of the land acquisition. If the land owner insists on discussing matters relating to compensation, financial loss, legal aspects or any other matter that falls outside of the Service Provider's area of responsibility, the Service Provider must timeously request the Employer for the assistance of the PSP.

Where it is necessary to relocate families and/or individuals situated on land under the control of a Tribal (Traditional) Authority, the Service Provider must engage with the Employer and the PSP as soon as it is possible in the Design Phase to initiate land acquisition in good time. The Service Provider must as soon as possible provide details of notional sites, quitrents and all other details required in the form of Property Reports. The PSP will engage further with the affected families and the Tribal (Traditional) Authority's leadership to conclude a relocation agreement with each family affected. This is most often a lengthy process and consequently poses a material risk to the Employer's programme for the Construction Phase of the project.

The relocation agreement negotiated by the PSP will *inter alia* deal with all aspects relating to the relocation of the occupants of the land including for example:

- i) Alternative land;
- ii) Acceptance of building plans for the alternative accommodation proposed;
- iii) Who will construct the alternative accommodation and by when; and
- iv) All other relevant matters peculiar to each relocation.

The Employer shall indicate if the occupants of Tribal land are to be relocated under this project, or by another contractor. The Training and Development Works Contract must include the construction of the alternative accommodation, deal with the provision of services, the physical relocation of the family affected and the demolition of the structure(s) from which the occupants are being relocated. The Service Provider is required to supervise such Training and Development Works Contract and attend to all administrative processes associated therewith.

The Service Provider must note that the guidelines contained in the LAC Manual, where applicable to the specific project, constitutes essential information concerning

the role and responsibilities of the Service Provider and must be considered by the Service Provider in the pricing of the work.

b) SPLUMA Implications and Duties

i) Introduction

- a. The Spatial Planning and Land Use Management Act, Act 16 of 2013 ("SPLUMA Act") commenced from 01 July 2015 and constitutes enabling national legislation.
- b. Section 25 of The South African National Roads Agency Limited and National Roads Act, Act No 7 of 1998 (the "SANRAL Act") sets out the powers of the Employer which include:
 - i. all strategic planning concerning the South African National Road System; and
 - ii. the planning, design, construction, operation, management, control, maintenance and rehabilitation of National Roads for South Africa.
- c. In terms of the Constitution of the Republic of South Africa, No. 108 of 1996 (the "Constitution"), the following is relevant:
 - i. National Roads do not fall into either Schedule 4 or 5 of the Constitution and are thus a National competency.
 - ii. Provincial Planning is an exclusive Provincial competency.
 - iii. Municipal Planning is an exclusive Municipal competency.
 - iv. Municipalities may enact SPLUMA Planning By-laws (the "Municipal By-laws") to administer Municipal Planning.
 - v. Municipal By-laws are binding on **all**, including Organs of State, unless a specific Municipal By-law provides for and expressly stated exemption.
- d. With respect to Municipal Planning the following is relevant:
 - i. *"Planning, in the context of Municipal affairs, is a term which has assumed a particular, well established meaning which includes the zoning of land and the establishment of s. In that context, the term is commonly used to define the control and regulation of the use of land."* (**le Sueur judgement**) and;
 - ii. *"It is, however, true that the functional areas allocated to the various spheres of government are not contained in hermetically sealed compartments. But notwithstanding, they remain distinct from one another. This is the position even in respect of functional areas that share the same wording like roads, planning, sport and others. The distinctiveness lies in the level in which a particular power is exercised."* (**Gauteng Development Tribunal judgement**)

ii) Impact of SPLUMA on the Employer's Planning Authority

"Land Development" is defined in the SPLUMA Act as the erection of buildings or structures on land or the change of land use. Accordingly, National Road Projects are included in this definition and are subject to the SPLUMA Act.

Section 2 of the SPLUMA Act *inter alia* provides that except as provided for in this Act, no legislation not repealed by this Act may prescribe an alternative or parallel system on Spatial Planning.

Section 33 of the SPLUMA Act provides *inter-alia* that except as provided in this Act, all development applications must be submitted to the Municipality as the authority of first instance; and Section 53 of the SPLUMA Act provides *inter-alia* that the registration of a property resulting from a Land Development Application may not be

performed unless the Municipality certifies that all requirements and conditions for approval have been complied with, known as "Municipal Consent".

iii) The need for and Consideration of an Agreement in terms of SPLUMA

Section 30(3): Whilst the relevant Municipality may regard an Authorisation in terms of any other legislation that meets all the requirements set out in the SPLUMA Act or Provincial legislation as an authorisation in terms of SPLUMA, one may argue that the Employer's declaration in terms of Section 40 of the SANRAL Act was an approval in terms of SPLUMA. **This argument may be possible in the context of existing National Roads, but w.r.t new roads, including the upgrading of roads, the widening of roads etc. this is not possible.**

Section 29: A municipality must in terms of this Section consult any Organ of State responsible of administering legislation relating to any aspect of an activity that also requires approval in terms of the SPLUMA Act to co-ordinate activities and give effect to the respective requirements of such legislation and to avoid duplication – Section 29(1).

A municipality, in giving effect to Chapter 3 of the Constitution, may, after consultation with the Organ of the State contemplated in Section 29(1), enter into a written agreement with that Organ of State to avoid duplication in the submission of information or the carrying out of a process relating to any aspect of an activity that also requires authorisation under the SPLUMA Act – Section 29(2); and

After a Municipality has concluded an agreement contemplated in Section 29(2), the relevant Municipal Planning Tribunal ("MPT") may take account of any process authorised under the legislation covered by that agreement as adequate for meeting the requirements of the SPLUMA Act – Section 29(3).

The Employer therefore intends to conclude a Section 29 Agreement in terms of the SPLUMA Act with the Municipalities for its National Road Projects. Accordingly, a draft Proforma Agreement is provided as an Appendix in Part C4.

iv) The Section 29 SPLUMA Agreement

The Employer has, and continues to, engage various state entities including the Department of Rural Development and Land Reform ("DRDLR"), the Department of Co-operative Governance and Traditional Affairs ("CoGTA"), South African Local Government Association ("SALGA") and others to have the draft SPLUMA Agreement adopted as part of the DRDLR's initiative to create National Norms and Standards and Guidelines with respect to the development by the State (in all its forms) of Public Service Infrastructure and in particular Public Service Infrastructure that is in the national interest such as National Roads.

As to the SPLUMA Agreement the following is emphasized:

- a. A preamble sets out the context for the agreement.
- b. The Agreement deals primarily with the planning impact that the National Road Project (the "**PROJECT**") will have on the surrounding planning to the proposed **PROJECT**.
- c. The statement(s) contained in the SPLUMA Agreement and which is of material importance is:
 - i. where the Municipality expressly confirms that it is satisfied, in as far as such confirmation is required in terms of the SPLUMA Act, Provincial Legislation or the Municipal By-Law, that the Employer's planning and designs for the **PROJECT** in so far as it relates to access and/or acquisitions of severed land and as depicted on the Road Development Plan and Access Plan are adequate and further confirms that no further or additional process(es) relating to the **PROJECT** are required. Such

confirmation also extends to land use aspects as contemplated in terms of the SPLUMA Act and the Municipal By-laws;

- ii. Further, the Municipality confirms that it is satisfied that the information provided by the Employer in so far as it relates to access and/or acquisitions of severed land and recorded in the SPLUMA Agreement, is/are sufficient for a land development application contemplated in terms of the SPLUMA Act and the Municipal By-Laws.
 - d. The Agreement then further provides *inter alia* for the incorporation of National Roads into the Municipality Spatial Development Framework and the amendment of the Municipality's Land Use Management Scheme.
 - e. Further, the agreement expressly provides that the public participation process undertaken by the Employer in terms of National Environmental Management Act, Act No. 107 of 1998 ("NEMA"), is sufficient and satisfactory to satisfy the provisions of the SPLUMA Act and Municipal By-Laws.
 - f. Records the Employer standing as an Applicant in terms of Section 45(d) of the SPLUMA Act;
 - g. Deals specifically with a dispute mechanism.
 - h. Provides for key annexures namely, a Corridor Plan; a Road Development Plan and Access Plan.
- v) Service Provider's Obligations w.r.t. the Section 29 SPLUMA Agreement**
- a. The Service Provider, as an Agent of the Employer will be required to facilitate the conclusion of the Section 29 SPLUMA Agreement between the Employer and the relevant Municipality(s).
 - b. The Service Provider will require to prepare the annexures to the Section 29 SPLUMA Agreement and in this regard, proforma examples are attached as an Appendix in Part C4.
 - c. The Service Provider will be required to interact with the Employer's PSP with respect to certain key plan(s) relevant to the National Road section being the subject of the **PROJECT**.
 - d. The above process will entail engagements with all relevant authorities and project Stakeholder(s).
 - e. The Service Provider will **not** be required to make a formal SPLUMA/Municipal By-law Application **after** the Section 29 SPLUMA Agreement has been concluded.
 - f. The Section 29 SPLUMA Agreement must be concluded **prior** to the **PROJECT** being tendered for construction.

vi) Process after the Conclusion of the Section 29 SPLUMA Agreement

Whilst the PSP will undertake and submit the formal SPLUMA and/or Municipal By-law application to give effect to the tasks as outlined further below, the Service Provider may be required to provide certain **PROJECT** related information and plans in support thereof.

- a. The PSP will make the requisite application in terms of the SPLUMA Act and the Municipal By-law using the Section 29 SPLUMA Agreement as the basis for such application.
- b. The PSP will notify the Minister of DRDLR in terms of Section 52 of the SPLUMA Act.
- c. Once the MPT has made its decision it may be necessary for the Employer to deal with objections and/or lodge an appeal against the decision of the MPT. In this regard, the Service Provider may be required to provide certain relevant **PROJECT** information and/or evidence in support thereof. The PSP will act for the Employer in such event.

vii) One or More Section 29 SPLUMA Agreements

Pending the complexities encountered in the design of the **PROJECT(S)**, it may be necessary to conclude more than one Section 29 SPLUMA Agreement.

viii) Design Amendments

It is to be noted that any amendments to the final design of the Road Project will necessitate that an addendum to the Section 29 SPLUMA Agreement be concluded. The Service Provider will be required to facilitate the conclusion of such addendum(s).

ix) Transfer of Access Roads and Declaration through Towns Agreements

The Service Provider is to note that the Section 29 SPLUMA Agreement is to be compiled and concluded in conjunction with the above Agreements.

x) Municipal By-law: Exemption

Certain Municipalities have, and may still introduce, an exemption in their Municipal By-laws for "Public Service Infrastructure" of which National Roads form a part thereof.

In such instances, the nature and context of the Section 29 SPLUMA Agreement may be substantially reduced and where the Section 29 SPLUMA Agreement would simply act as the Road Project Agreement with the Municipality to formalize how the impacts the **PROJECT** on the surrounding areas have been accommodated in the final design.

The Service Provider must accordingly check the Municipality's By-laws to establish this fact.

C3.4.11 Road Safety Audit

- a) The Service Provider shall in terms of the South African Road Safety Audit Manual (Second Edition, May 2012), hereafter referred to as the SARSAM:
 - i) Develop a Scope of Works for the procurement of the services of a Road Safety Audit Team for **Stages 1 and/or 2 and/or 3 and/or 4 and/or 5** of the Project. The stages and numbering refer to the definitions in SARSAM. Such Scope of Works shall include but are not limited to:
 - a. conducting a Project Information Review;
 - b. conducting a Site Inspection/s;
 - c. producing a Road Safety Audit Report;
 - d. issuing the Road Safety Audit Report and discussing the initial findings with the Employer and the Service Provider; and
 - e. initiating and conducting a Completion Meeting as prescribed in the SARSAM.
 - ii) Recommend with motivation to the Employer the composition of the Road Safety Audit Team depending on the size and complexity of the project, as prescribed in the SARSAM. Generally, the Road Safety Audit Team will comprise an Audit Team Leader and at least two (2) Audit Team members. The Audit Team Leader is the lead auditor that is responsible for compiling the road safety audit report and representing the audit team in liaising with the Employer and the Service Provider. The Audit Team Member/s is the second auditor that assists in and contributes to the road safety audit. The Audit Team Leader and Member/s must be independent from the Service Provider and must not be under the employ of the Service Provider.

- b) The Service Provider must ensure that the minimum requirements of the Audit Team Leader and Members comply with the Employers Road Safety Audit Policy. A copy of the Employer's Road Safety Audit Policy is included in Section C: Appendix I.
- c) Once the Road Safety Audit Team is appointed, the Service Provider shall:
 - i) compile and Issue a Road Safety Audit Brief to the Road Safety Audit Team;
 - ii) initiate and conduct a Commencement Meeting with the Road Safety Audit Team;
 - iii) attend a Completion Meeting if requested by the Employer;
 - iv) review Audit Findings and Recommendations; and
 - v) compile and issue a Response Report including Risk Assessment of Safety Concerns;
 as prescribed in the SARSAM
- d) The Service Provider shall implement Design Changes as identified by the Road Safety Audit Team and as agreed to with Employer, as specified in the Response Report.
- e) The Service Provider should provide written feedback on lessons learned and knowledge gained, which shall take the form of a short report.
- f) With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to identify potential hazardous locations. This will require assessment data to be uploaded into the SARDS portal by Service Provider as per the defined standard format or SARDS interface and then analysed using SARDS, if required for this CD project.

Table C3.4.11: Road Safety Audit Stages

Road Safety Audits	New Projects	Upgrading Projects	
		Strengthening (Rehabilitation, Reconstruction, Bridges)	Improvement (Level of Service, Capacity, Alignment, Bridges)
Stage 1: Feasibility / Preliminary Design (As defined in Clause C3.4.5 Concept Design and C3.4.6 Preliminary Design.)	Yes	Yes	Yes
Stage 2: Preliminary Design (As defined in Clause C3.4.6 Preliminary Design.) Stage 2; Draft Design (As defined in SARSAM.)	Yes	Yes	Yes
Stage 3: Detail Design Including Traffic Accommodation Design (As defined in Clause C3.4.7 and the SARSAM.)	Yes	Yes	Yes
Stage 4: Construction (Road Safety Audit of Traffic Accommodation proposed by the Contractor (As defined in SARSAM.)	Optional	Optional	Optional

Stage 5: Pre-opening (As defined in SARSAM.)	<i>Optional</i>	<i>Optional</i>	<i>Optional</i>
Total Number of Audits	Minimum of 3	Minimum of 2	Minimum of 2

C3.4.12 Project Cost and Feasibility

At the reporting stage of each design development phase a cost estimate of the project, including contract price adjustment (CPA) shall be determined. The cost estimate shall include for the total training and development project and distinguish between the following project components:

- a) Theoretical training phase;
- b) Practical training phase; and
- c) Construction of the Works.

A separate cost estimate shall be compiled for each design option. On completion of the detailed design stage this estimate shall consist of a priced schedule of quantities. This estimate shall include a training and construction manager's probable preliminary and general costs, as well as a provision for contract price adjustment. No allowance is to be made for a contingent sum. However, the inclusion of provisional sums within the schedule of quantities is acceptable.

In addition to a cost estimate of each design being developed, a feasibility analysis shall also be conducted as specified.

C3.4.13 Project Programme and Constructability

At completion of the detailed design phase the Service Provider shall provide a comprehensive logic programme of the theoretical and practical training phases, as well as the construction activities, regardless of the complexity of the project. The programme shall also be used to verify a realistic project implementation and construction period.

The programme shall include the following:

- a) A work breakdown structure that identifies all major activities.
- b) Scheduled duration for each activity.
- c) Linkages between activities that clearly identify sequence, floats and critical path.
- d) Simultaneous activities shall be identified as well as priority activities.
- e) Time for each activity.
- f) A risk assessment schedule with mitigating plans of issues that could prevent the due completion date being met.

Should the Employer require an electronic version of the programme for review purposes, the Service Provider shall supply the programme in a format compatible with the Employer's software.

Throughout the development of the project design the Service Provider shall consider the training and development requirements, as well as the constructability of the design which shall also be reflected in the programme. Typical aspects and/or constraints that should be considered (but not limited to) are Stakeholder and Community engagement, identification and selection of project beneficiaries, training period and requirements, traffic volumes, time of day/year, work space, weather, safety, environmental issues and land acquisition issues.

C3.4.14 Detailed Design Report

A detailed design report shall be submitted for discussion at the progress meeting. This report shall, as a minimum, cover all the duties as specified under Detail Design including:

- a) A skills and resources audit report of the local and/or identified Community's academic and occupational skills and the local Targeted Enterprise availability and capabilities.
- b) A detailed training and development programme for the identified Community and local Targeted Enterprises, which is outlined, based on the detail design.
- c) Deviations from standards, e.g. geometric, drainage, road classification, structures, etc.
- d) Geometric and capacity improvements.
- e) Existing versus proposed X-section.
- f) X-section development strategy (20 years).
- g) Intersection and/or interchange improvements.
- h) Outcome of interaction with project Stakeholders and affected Communities.
- i) Relocation of services.
- j) Existing pavement condition and accepted pavement design.
- k) Materials utilization.
- l) Geotechnical improvements.
- m) Road furniture improvements.
- n) Additional land requirements.
- o) Drainage improvements.
- p) New structures and any capacity improvements to existing structures (which includes major culverts, lesser culverts, walls, gantries, light masts and buildings).
- q) Comprehensive report on Land Acquisition (where the report shall *inter alia* report on the risks associated with gaining timeous access to the land required).

C3.4.15 Phase/Stage Discontinuity

Whenever discontinuity occurs between various design phases within the design development stage, the Service Provider shall review the design of the Service Provider who undertook the previous phase design. The Service Provider shall also take account of any other information and data acquired from its own approved investigations. Should the Service Provider be required to re-design certain portions of the previous phase, the Service Provider shall take full liability for that portion.

Whenever discontinuity between design development stage and/or tender documentation stage and/or contract administration and monitoring of the works stage occurs:

- a) The Service Provider shall review the design of the Service Provider who undertook the design development (the Designer) taking account of any other information and data acquired from its own approved investigations. Should the Service Provider be required to re-design certain portions of the original design the Service Provider shall take full liability for that portion.
- b) The Designer will be afforded the opportunity to review the final tender documentation compiled by the Service Provider. This is done in recognition of the Designer's ongoing liability for the design and providing the protection to review and comment on the original design and specifications still being appropriate for the prevailing circumstances and/or conditions. In addition, the Designer will be provided the opportunity to inspect the construction works periodically to ensure his/her professional obligations are not being compromised. Any visit shall be in the company of the Service Provider appointed for construction monitoring. The frequency of any such inspections shall be appropriate to the scope and scale of the Works.

C3.4.16 Measurement and Payment

Item	Description	Unit
3.4.1	Concept Design	
	(a) Road Works	Lump Sum (LS)
	(b) Structures	Lump Sum (LS)

	(c)	Electrical	Lump Sum (LS)
	(d)	Buildings	Lump Sum (LS)
	(e)	Mechanical	Lump Sum (LS)
	(f)	Other	Lump Sum (LS)

Item	Description		Unit
3.4.2	Preliminary Design		
	(a)	Road Works	Lump Sum (LS)
	(b)	Structures	Lump Sum (LS)
	(c)	Electrical	Lump Sum (LS)
	(d)	Buildings	Lump Sum (LS)
	(e)	Mechanical	Lump Sum (LS)
	(f)	Other	Lump Sum (LS)

Item	Description		Unit
3.4.3	Detail Design		
	(a)	Road Works	Lump Sum (LS)
	(b)	Structures	Lump Sum (LS)
	(c)	Electrical	Lump Sum (LS)
	(d)	Buildings	Lump Sum (LS)
	(e)	Mechanical	Lump Sum (LS)
	(f)	Other	Lump Sum (LS)

The units of measurement under items 3.4.1 to 3.4.3 shall be the Lump Sum. The Lump Sums tendered shall include full compensation for all duties and requirements associated with the specific design stage as specified in Clauses C3.1.4, C3.4.3 to C3.4.7, C3.4.12 and C3.4.13.

The Service Provider shall be entitled to render interim monthly accounts, based on progress measured against the approved programme, for up to 70% of the Lump Sum for the specific stage. A further 20% of the Lump Sum is claimable upon delivery of the respective draft report. The remaining 10% of the Lump Sum is claimable upon delivery of the approved respective final report.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description		Unit
3.4.4	Disbursements		
	(a)	Concept design	Lump Sum (LS)

	(b)	Preliminary design	Lump Sum (LS)
	(c)	Detailed design	Lump Sum (LS)

The unit of measurement under items 3.4.4(a) to (c) shall be the Lump Sum. The Lump Sums tendered shall include full compensation for all disbursements, materials, printing, travel (including toll fees) and subsistence and all other costs associated with the relevant design phase.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description		Unit
3.4.5	Land Requirements		
	(a)	Compilation of Property Report for each individual property (or portion thereof) required.	Number
	(b)	Conclusion of SPLUMA Agreements with Municipalities.	Number
	(c)	Conclusion of addenda to SPLUMA Agreements.	Number

The unit of measurement under item 3.4.5 shall be the Number.

The rate tendered under sub-item 3.4.5(a) shall include for all costs for sourcing and providing all the information and the compilation of property reports as specified in Clause C3.4.10(a).

The rate tendered under sub-items 3.4.5(b) and (c) shall include all costs for sourcing and providing all information, facilitation with relevant Stakeholders to enable the conclusion of the SPLUMA Agreement(s), or addendums to the SPLUMA Agreement(s).

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description		Unit
3.4.6	Road Safety Audit: Feasibility and/or Preliminary and/or Detail Design		
	(a)	Road Safety Audit	Prime Cost (PC)
	(b)	Handling costs i.r.o. sub-item 3.4.6(a)	Lump Sum (LS)

The Prime Cost under sub-item 3.4.6(a) shall be paid in accordance with Clause C2.1.8.

The unit of measurement for sub-item 3.4.6(b) shall be the Lump Sum. The Lump Sum tendered shall include for all costs associated with the planning, scheduling, compilation of quotation and/or tender documentation, issuing of up to 20 (twenty) quotation and/or tender documents in electronic format and evaluation for the procurement and management of the sub-service including administrative cost, handling fees and profit.

Contract price adjustment shall be applicable to sub-item 3.4.6(b) in accordance with Clause C2.1.6.

Item	Description	Unit
3.4.7	Road Safety Audit: Construction and/or Pre-opening	
(a)	Road Safety Audit	Prime Cost (PC)
(b)	Handling costs i.r.o. sub-item 3.4.6(a)	Lump Sum (LS)

The Prime Cost under sub-item 3.4.7(a) shall be paid in accordance with Clause C2.1.8.

The unit of measurement for sub-item 3.4.7(b) shall be the Lump Sum. The Lump Sum tendered shall include for all costs associated with the planning, scheduling, compilation of quotation and/or tender documentation, issuing of up to 20 (twenty) quotation and/or tender documents in electronic format and evaluation for the procurement and management of the sub-service including administrative cost, handling fees and profit.

Contract price adjustment shall be applicable to sub-item 3.4.7(b) in accordance with Clause C2.1.6.

Item	Description	Unit
3.4.8	Occupational Health and Safety Requirements	Lump Sum (LS)

The unit of measurement under pay item 3.4.8 shall be the Lump Sum. The Lump Sum tendered shall include for all costs associated with compliance with the Construction Regulations of the Occupational Health and Safety Act (No. 85 of 1993) as relevant for the design and documentation of the Training and Development Works Contract.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description	Unit
3.4.9	Training	
(a)	Service Provider's staff and Targeted Enterprises.	
(i)	Assistant project Leader (APL)	Provisional Sum (PS)
(ii)	Assistant Design Specialist(s) (ADS)	Provisional sum (PS)
(iii)	Disbursements	Prime Cost (PC)
(b)	Employer's Trainees	
(i)	Candidate engineers	Person Month
(ii)	Students receiving experiential training	Person Month
(iii)	Student stipend	Provisional Sum (PS)

The Provisional Sum under for sub-items 3.4.9(a)(i) and (a)(ii) shall include full compensation for the remuneration of the Assistant Project Leader and Assistant Design

Specialist(s) but shall be limited to 25% (twenty-five percent) of Total Annual Cost of Employment (TACE) of the individuals approved as assistants.

The Prime Cost sum under item 3.4.9(a)(iii) is to cover the disbursement cost of the Assistant Project Leader and Assistant Design Specialist(s) to attend meetings.

The units of measurement under sub-item 3.4.9(b)(i) and (b)(ii) shall be the Person Month. The rates tendered shall include full compensation for the Service Provider's costs to provide training to the different categories of trainees inclusive of all costs to communicate with the Employer and any other body or organisation in respect of work assigned to the trainees as specified in Clause C3.1.20. The rate tendered shall also include telephone calls and charges, stationery and information technology hardware, software, connection or license costs and for lost production, profits and all other incidentals.

The rate for sub-item 3.4.9(b)(iii) shall also include all administrative and overhead costs related to stipends to students.

The Provisional Sum under item 3.4.9(b)(iii) is to cover the monthly stipends as prescribed by the Employer to be paid to the students.

The Provisional Sum items shall be paid in accordance with Clause C2.1.8.

Pro-rata payments shall be made for partial months for training provided based on a 23 (twenty-three) working day month.

Contract price adjustment shall be applicable to sub-items 3.4.9(b)(i) and (b)(ii) in accordance with Clause C2.1.6.

Item	Description	Unit
3.4.10	Phase or Stage Discontinuity	
(a)	Review of previous phase or stage.	Lump Sum (LS)
(b)	Review of tender documentation by original Designer.	Prime Cost (PC)
(c)	Visit to construction site by original Designer	Prime Cost (PC)
(d)	Handling cost i.r.o. sub-items 3.4.10(b) and 3.4.10(c).	Percentage (%)

The unit of measurement under sub-item 3.4.10(a) shall be the Lump Sum. The Lump Sum tendered shall be full compensation for the time and cost to review the respective documents including all travel and subsistence costs, the costs of all written, telephonic and electronic communications and all other incidentals necessary to read, understand, create and express opinions and decisions from them, regardless of their quantity or complexity. It shall also include the submission of a report addressing the full review.

The Prime Cost sum under sub-item 3.4.10(b) is to cover full compensation for the time and cost to review the respective documents including all travel and subsistence costs, the costs of all written, telephonic and electronic communications and all other incidentals necessary to read, understand, create and express opinions and decisions from them, regardless of their quantity or complexity. It shall also include the submission of a report addressing the full review.

The Prime Cost sum under sub-item 3.4.10(c) is to cover all costs by the original Designer to visit the site.

The Prime Costs shall be paid in accordance with Clause C2.1.8.

The unit of measurement under sub-item 3.4.10(d) shall be a Percentage (%). The rate tendered (%) is for the mark-up on the disbursement costs incurred by the Service Provider. It shall also include for all costs associated with compliance with the Construction Regulations of the Occupational Health and Safety Act (No. 85 of 1993) as relevant for the design of the Works during the construction phase as well as the Designer's obligations with respect to the relevant professional engineers' legislation.

Contract price adjustment shall be applicable to sub-item 3.4.10(a) in accordance with Clause C2.1.6.

Item	Description		Unit
3.4.11	Field Work for Identification of Material Sources by Service Provider		
	(a)	Personnel Cost	Provisional Sum (PS)
	(b)	Disbursements	Prime Cost (PC)
	(c)	Handling costs i.r.o. sub-item 3.4.10(b)	Percentage (%)

The Provisional Sum under sub-item 3.4.11(a) is to cover all field work undertaken by the Service Provider related to the identification of material sources as specified in Clause C3.4.3. Payment under this Provisional Sum will be made in accordance with the hourly rates provided under payment items for additional duties by the Service Provider in Section C3.8.

The Prime Cost sum under sub-item 3.4.11(b) is to cover the disbursement cost of personnel, accommodation, travel and subsistence associated with the undertaking of additional duties. Vehicle travel cost will be reimbursed in accordance with Section C3.8.

The Prime Cost shall be paid in accordance with Clause C2.1.8.

The unit of measurement under sub-item 3.4.11(c) is a percentage (%). The rate tendered (%) is for the mark-up on the disbursement costs incurred by the Service Provider.

Item	Description		Unit
3.4.12	Investigation and sampling for roadbed, borrow pits, quarries, structure founding materials and other areas, e.g. cuttings.		
	(a)	Establishment of personnel and equipment for testing pitting	Lump Sum (LS)
	(b)	Hire and operation of excavator	Prime Cost (PC)
	(c)	Handling costs i.r.o. sub-item 3.4.11(b)	Percentage (%)
	(d)	Test pit excavation by hand	Number
	(e)	Sampling and profiling of test pits	Number
	(f)	DCP	Number
	(g)	Transport of samples to laboratory	

	(i)	Large bags	Number
	(ii)	Small bags	Number

.The unit of measurement under pay item 3.4.12(a) shall be the Lump Sum. The Lump Sum tendered shall cover all costs associated in establishing an appropriately sized team on site to carry out the scheduled investigation.

The unit of measurement under pay item 3.4.12(b) shall be a Prime Cost sum. The Prime Cost item shall be paid in accordance with Clause C2.1.8.

The unit of measurement under pay item 3.4.12(c) shall be a percentage (%). The rate tendered (%) is a percentage of the amount spent under item 3.4.12(b) and shall include full compensation for obtaining quotations from local plant hire companies in accordance with the Employer's standard requirements, for handling fees and profits of the Service Provider.

The unit of measurement under pay item 3.4.12(d) shall be the Number of test pits excavated by hand labour (excluding the sampling and profiling and/or photography) and backfilled at locations identified by the Design Specialist. The rate tendered shall include for all costs including travel, labour, accommodation, subsistence, plant, materials, etc. associated with the excavation and safeguarding of test pits and subsequent backfilling thereof as specified.

The unit of measurement under pay items 3.4.12(e) shall be the Number of test pits profiled and/or photographed by the Design Specialist and sampled (either dug by mechanical means or hand labour) irrespective of the number of horizons encountered. The rate tendered shall include all costs including travel, labour, accommodation, subsistence, plant, materials, sample bags, etc. associated with the profiling and sampling of test pits.

The unit of measurement under pay item 3.4.12(f) shall be the Number of DCP tests at locations identified by the Design Specialist. The rate tendered shall include for drilling through any "refusal" layers, completing the test and submission of the DCP analysis to the Design Specialist.

The unit of measurement under pay item 3.4.12(g) shall be the Number of large bags and/or small bags transported. The rate tendered shall include all costs to transport the bags to the laboratory selected to carry out the testing, irrespective of distance.

Contract price adjustment shall be applicable to all sub-items, excluding sub-items 3.3.12(b) and (c), in accordance with Clause C2.1.6.

Item	Description		Unit
3.4.13	Laboratory Testing and Reporting		
	(a)	Standard tests as listed in the Pricing Schedule	Number
	(b)	Laboratory testing where no schedule is available, or specialised testing.	Prime Cost (PC)
	(c)	Handling costs i.r.o. sub-item 3.4.12(b)	Percentage (%)

The unit of measurement under item 3.4.13(a) shall be the Number of tests prescribed by the Design Specialist and carried out by the laboratory. The rate tendered shall cover all costs associated in completing the individual tests and shall include for all calculations and reporting. Any tests proven to be erroneous shall not be paid for.

The unit of measurement under item 3.4.13(b) shall be a Prime Cost sum. The Service Provider shall identify the type and estimated quantity of tests required and shall compile a quotation document in accordance with the Employer's standard requirements and policy for procuring the relevant service. The Prime Cost item shall be paid in accordance with Clause C2.1.8.

The unit of measurement under item 3.4.13(c) is a percentage (%). The rate tendered (%) is a percentage of the amount spent under item 3.4.13(b) and shall include full compensation for all costs of the Service Provider as specified.

Where the prior identification of materials testing requirements is not possible, a Provisional Sum has been included in the Pricing Schedule for the procurement of such services. Where testing is carried out under a Provisional Sum the percentage handling fee tendered in the Pricing Schedule shall include for all the Service Provider's costs associated with:

- a) compiling a schedule of all envisaged work;
- b) production of a document for procurement purposes (including printing etc.);
- c) calling for quotations or tenders;
- d) evaluation of quotations or tenders received and recommendations to the Employer;
- e) handling fees; and
- f) profit.

Procurement of such services shall be in accordance with Clause C3.1.12.

Contract price adjustment shall be applicable to sub-item 3.4.13(a) in accordance with Clause C2.1.6.

Item	Description	Unit
3.4.14	Protection, removal, re-alignment, relocation and replacement of services prior to Construction Phase	
	(a) Services (Water pipes, electrical cables)	Prime Cost (PC)
	(b) Handling costs i.r.o. sub-item 3.4.14(a)	Percentage (%)

The Prime Cost sum under item 3.4.14(a) shall be paid in accordance with the provisions of Clause C2.1.8. The Prime Cost sum is to cover full compensation for the protection, removal, re-alignment, relocation and replacement of services using specialised equipment in urban areas. If the work is to be performed by the service owner, the amount invoiced by the service owner shall be paid and a Works Authorisation submitted.

The unit of measurement under item 3.4.14(b) shall be a percentage (%). The rate tendered (%) shall include full compensation for the handling cost in respect of sub-item 3.4.14(a).

Item	Description	Unit
3.4.15	Employer's Gateway Review Process	Lump Sum (LS)

The unit of measurement under item 3.4.15 shall be the Lump Sum. The Lump Sum tendered shall include full compensation for time related costs, all disbursements, materials, printing and all other costs associated with presenting the project concept or preliminary alternatives (whichever is applicable) to the Employer's Gateway Review team, before commencing with Detail Design.

C3.5 TENDER DOCUMENTATION

C3.5.1 Scope

This section covers the requirements and process for the compilation of tender documentation and invitation to tender for the Training and Development Works Contract.

C3.5.2 Tender Documentation

a) Nature of the Contract

The Training and Development Works Contract shall predominantly be a training and construction management type of contract. A Training and Construction Manager shall be responsible to provide theoretical and practical training to identified and selected beneficiaries of the Community Development project, after which he shall oversee the construction of the work in a managing and mentoring capacity.

At least 80% to 90% of the construction amount shall be undertaken by Targeted Enterprises (beneficiaries of the project), which shall be sub-contracted to the Training and Construction Manager.

b) Tender Document Volumes

The following documents shall form the Tender Documents for the Training and Development Works Contract:

- i) **VOLUME 1:**
The FIDIC Conditions of Contract for Construction, 1999 issued by the International Federation of Consulting Engineers (to be purchased separately by tenderers).
- ii) **VOLUME 2:**
The Standard Specification for Road and Bridge Works for State Road Authorities, March 1998, issued by the Committee of Land Transport Officials (to be purchased separately by tenderers).
- iii) **VOLUME 3:**
The Project Document, which includes Conditions of Tender, Particular Conditions of Contract, Scope of Works and Forms, all in accordance with the Employer's standard pro-forma document.
- iv) **VOLUME 4:**
The Standard Drawings for tender purposes available from the Employer.
- v) **VOLUME 5:**
Materials Investigation and Utilisation Information (if required by the Employer to be bound separately).
- vi) **VOLUME 6:**
Environmental Management Programme (if required by the Employer to be bound separately).

Due to the nature of the contract, the document shall comprise a hybrid of specifications, with sections that are tailor made for the training and development component of the project and sections based on Volume 2 for the construction of the works.

C3.5.3 Compilation of Final Tender Document

The Service Provider shall adhere to the following process:

- a) Compile and submit draft tender documentation for discussion with the Employer.
- b) Following the discussion of the draft documentation, the Service Provider shall:
 - i) compile final documents incorporating all the amendments arising from the discussion;
 - ii) compile and write the requisite number of complete sets of documents on CD's/DVD's with the standard cover detail imprinted on the CD/DVD as well as the CD/DVD case;
 - iii) prepare the requisite number of paper copies of the complete set of the tender document;
 - iv) deliver the CD's/DVD's and paper copies to the Employer's regional office before the tender document availability date specified in the Tender Notice and Invitation to Tender.

If the draft documentation is of sub-standard and/or poor quality, the above-mentioned process will be repeated. In such circumstances, the additional time spent by the Employer shall be paid for by the Service Provider as specified under Additional Duties.

C3.5.4 Tender Advertisement

The Service Provider shall prepare the tender advertisement and submit it to the Employer who will place the tender advertisement on the required platforms.

C3.5.5 Measurement and Payment

Item	Description	Unit
3.5.1	Tender Documentation	
(a)	Preparation of tender documentation.	Lump sum (LS)
(b)	Disbursements	Lump Sum (LS)
(c)	Tender Documents on CD/DVD	Number (No)

The unit of measurement under pay item 3.5.1(a) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for time related costs associated with the compilation of the draft tender documents, discussion and meetings with the Employer and subsequent finalisation of the tender documentation.

The unit of measurement for pay item 3.5.1(b) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all disbursements, materials, printing and all other costs associated with compilation of the draft tender documents, discussion and meetings with the Employer and subsequent finalisation of the tender documentation.

The unit of measurement under pay item 3.5.1(c) shall be the Number. The rate tendered shall include for all costs associated with the compilation and writing of a CD/DVD of each full set of final tender documents and shall include for all expenditure on labour and materials, communication, postage and packaging incurred by the Service Provider.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

C3.6 CLARIFICATION MEETING, TENDER PERIOD AND TENDER EVALUATION

C3.6.1 Scope

This section covers the requirements and process for the Training and Construction Managers' clarification meeting, tender period and evaluation of tenders received for the Training and Development Works Contract.

C3.6.2 Clarification Meeting

The Service Provider shall arrange and conduct a compulsory clarification meeting for prospective tenderers for the Training and Development Works Contract in accordance with the Employer's standard requirements, which shall, inter alia, include the following:

- a) Acquiring a suitable venue and provision of refreshments.
- b) If required, arranging a coach at the venue for the safe transport of prospective tenderers to inspect the site.
- c) Preparing the agenda and all necessary visual aids, including sufficient copies of Form A1: Certificate of Attendance at Clarification Meeting.
- d) Compiling a clarification meeting information booklet for distribution to tenderers (Volume 8). Where a site inspection is required sufficient preparation shall be made on the site for easy reference of important aspects of the project, e.g. limits of the contract, location of borrow pits, bridge sites, display of core samples, etc.
- e) Providing sufficient attendance register forms.
- f) Chairing the meeting.
- g) Recording minutes of the meeting.
- h) Attending to any queries or points of clarification requested by tenderers during the clarification meeting.
- i) The proceedings shall start strictly at the time as advertised. Only then will the Service Provider circulate the Attendance Register for completion. During this time, prospective tenderers may enter the venue. On completion of the attendance register by all present the Service Provider will:
 - i) confirm that all present have completed and signed the attendance register;
 - ii) ensure that the date of the Inspection or Meeting is recorded on the Attendance Register;
 - iii) cross out any unused space below the last entry;
 - iv) write his name and sign the Attendance Register in the appropriate places; and
 - v) commence with the meeting and inform any late arrivals that their tender submission shall be regarded as non-responsive.
- j) The Service Provider shall then allow the Employer's Project Manager to open the meeting by introducing herself/himself and welcoming all present. The Employer's Project Manager will introduce the Employer's personnel, other Stakeholders, if any, (for example, a Provincial Government representative) and the Service Provider. He may then hand over to the Service Provider who will, thereafter, conduct the meeting.
- k) Present the Agenda for the meeting and the arrangements for the day.
- l) Describe the works with as much detail as is required for specific items or operations.
- m) Announce any amendments made to the tender documents.
- n) Invite questions.
- o) Ensure those present complete and sign the "FORM A: CERTIFICATE OF TENDERER'S VISIT TO THE SITE" and have it signed by the Employer's Project Manager. This form must only be signed after the completion of the site inspection and before the closure of the meeting.
- p) The estimate for the cost of the works shall not be divulged.

C3.6.3 Tender Period

The Service Provider shall communicate, through the Employer's Procurement Department, with all tenderers during the tender period in accordance with the Conditions of Tender for the Training and Development Works Contract. The actions below need to be followed:

- a) Compile, for distributing by the Employer's Procurement Department, minutes of the clarification meeting as an addendum at least 5 (five) working days before the date and time of tender closure.
- b) Attend to any technical queries or points of clarification requested by tenderers.
- c) Compile, for distribution by the Employer's Procurement Department, a confirmation of receipt by all tenderers of any addenda to the Tender Document.
- d) Inform and obtain approval from the Employer of any unresolved enquiries, potential alternative proposals of which notice has been received from tenderers and changes to the date for submission of tenders.

C3.6.4 Tender Opening and Tender Evaluation

The Service Provider shall be represented at the opening of tenders for the Training and Development Works Contract that shall take place at the Employer's relevant Regional office. Copies of the Tender Documents shall then be taken (after signing for the receipt thereof) by Service Provider for tender evaluation and the original Tender Documents shall remain with the Employer.

The Service Provider shall evaluate all tenders received and compile a Tender Evaluation Report, including recommendations within 14 (fourteen) calendar days after date of tender closure. During tender evaluation, the Service Provider shall:

- a) Assess all tenders received with respect to responsiveness.
- b) Identify and call for any additional information that may be required from tenderers in terms of the Conditions of Tender for the Training and Development Works Contract and ensure that the replies are considered in the evaluation process.
- c) Advise tenderers, in terms of Conditions of Tender of any arithmetical, or other corrections made to errors in the extension of rates and/or totals in their tenders and the effect of such corrections and receive written acceptance of such corrections.
- d) Identify imbalanced rates and request acceptable explanations and/or adjustments thereof in terms of Conditions of Tender, which shall be considered in the tender evaluation process.
- e) Check and assess the B-BBEE scorecard of all competitive tenderers.
- f) Make available to the Employer's Head Office, for attention: A MacKellar at mackellara@nra.co.za, 1 (one) electronic copy of the Pricing Schedule of the lowest 2 (two) responsive tenders.

The Service Provider shall, during the tender evaluation, liaise closely with the Employer with respect to any possible disqualification of tenders or issues of a substantive nature identified prior to submission of the Tender Evaluation Report.

The Tender Evaluation Report shall conform to the requirement of the Employer's pro-forma document with respect to content and format. Two (2) hard copies as well as 1 (one) electronic copy of the Tender Evaluation Report shall be submitted to the Employer on or before the date specified in Clause C3.1.9.

C3.6.5 Alternative Tenders

The Employer promotes the submission of appropriate and innovative alternatives for the Training and Development Works Contract. The Service Provider shall liaise closely with the Employer as to the acceptability or otherwise of the principles of any alternative tenders proposed by a tenderer during the tender period.

The Service Provider shall present the analysis of alternative tenders along with recommendations in the Tender Evaluation Report. Assessment and evaluation of alternative tenders pertaining to, for example, alternative seal or asphalt types, changes to contract period or such like shall not be subject to additional payment.

In cases where an alternative tender requires detailed analysis, e.g. design checks, the Service Provider shall submit a motivation, together with a cost estimate, to the Employer for

approval prior to commencing with any additional detailed analysis. Such a cost estimate shall be based on rates tendered in accordance with Section C3.8.

C3.6.6 Contract Documents for the Works

The Service Provider shall, within 14 (fourteen) days of the date of the Letter of Acceptance, prepare and submit 2 (two) sets of contract documents for signature. These documents shall be prepared in accordance with the requirements listed in the Employer's pro-forma document. One (1) electronic copy in pdf format of a fully signed (by all parties) contract shall also be submitted. The number of additional sets of contract documents for use by the Engineer and his site staff shall be at the discretion of the Service Provider.

The following shall be bound at the back of Volume 3, or bound together as a separate volume together with a table of contents:

- a) All addenda issued, together with proof of receipt, completed and signed by the successful tenderer.
- b) All letters, statements and documents submitted by the successful tenderer with his tender.
- c) All correspondence between the Service Provider and the successful tenderer prior to tender acceptance.
- d) The Employer's Letter of Acceptance of tender.
- e) The Contractor's Letter of Acceptance, including any conditions.

The contract documents shall comprise all the documents mentioned above, together with Volumes 1 and 2 and the performance guarantee, which shall remain separate documents.

The Engineer shall assess the performance guarantee provided by the Training and Construction Manager for conformance with the pro-forma wording in the tender documentation and if satisfied, shall thereafter submit it to the Employer for safe keeping.

3.6.7 Measurement and Payment

Item	Description	Unit
3.6.1	Clarification Meeting and Tender Period	
	(a) Service Provider's cost	Lump Sum (LS)
	(b) Hiring of venue, providing refreshments and coach (if required)	Prime Cost (PC)
	(c) Handling costs i.r.o. sub-item 3.6.1(b)	Percentage (%)

The unit of measurement under sub-item 3.6.1(a) shall be the Lump Sum. The Lump Sum tendered shall include for all costs (excluding those for which a Prime Cost sum has been provided) incurred by the Service Provider with respect to the duties for the clarification meeting and tender period as specified.

The Prime Cost sum under item 3.6.1(b) shall be paid in accordance with Clause C2.1.8.

The unit of measurement under sub-item 3.6.1(c) shall be a percentage (%). The rate tendered (%) shall include full compensation for the handling costs in respect of sub-item 3.6.1(b).

Contract price adjustment shall be applicable to sub-item 3.6.1(a) in accordance with Clause C2.1.6.

Item	Description	Unit
3.6.2	Tender Evaluation	
(a)	Tender evaluation and report	Lump Sum (LS)
(b)	Disbursements	Lump Sum (LS)

The unit of measurement under item 3.6.2(a) shall be the Lump Sum. The Lump Sum shall include full compensation for time related costs associated with the evaluation of the tender and compilation of tender report.

The unit of measurement under item 3.6.2(b) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all disbursements, materials, printing and all other costs associated with the evaluation of the tender and compilation of a tender report and the submission to SANRAL's head office for the attention of A MacKellar at mackellara@nra.co.za, 1 (one) electronic copy of the Pricing Schedule of the lowest 2 (two) responsive tenders.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description	Unit
3.6.3	Preparation of Training and Development Works Contract Documents	Lump Sum (LS)

The unit of measurement for pay item 3.6.3 shall be the Lump Sum. The Lump Sum tendered shall be for the preparation of 2 (two) Contract Documents for signature by the Employer and the appointed Training and Construction Manager for the Works in accordance with Clause C3.4.6 and 4 (four) additional sets for use by the Employer (1 off), Training and Construction Manager (1 off) and Engineer (2 off) and provide an electronic copy of the signed Contract Documents on a CD.

The Lump Sum tendered shall also include for all expenditure on labour, materials, communication, postage and packing incurred by the Service Provider in the production and delivery of the documents. Payment of the Lump Sum will be made on receipt of 2 (two) copies for signature and 4 (four) additional copies of the Contract Documents and an electronic copy of the signed Contract Documents on a CD, as specified, by the Employer. The cost of producing any additional copies for use by the Service Provider shall be deemed to be included in the Lump Sum tendered for this item.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

C3.7 ADMINISTRATION AND MONITORING OF THE TRAINING AND DEVELOPMENT WORKS CONTRACT

C3.7.1 Scope

This section covers the duties and obligations of the Service Provider in the provision of the Engineer and site supervisory staff for the administration, construction monitoring and measurement of the Works carried out by the Training and Construction Manager appointed by the Employer during the original Training and Development Works Contract duration, extended duration and including prolonged site stoppages not under the control of the Employer (i.e. Business Rescue or Community unrest).

C3.7.2 Administration and Monitoring

The appointed Engineer for the project shall be that person listed in the tender as the Contracts Engineer, who shall be authorized by the Service Provider to carry out the work intended by the specifications and the duties required by the FIDIC general conditions of contract and other specifications tailor made for the Training and Development Works Contract.

a) Assistance and Support to the Training and Construction Manager

The Employer, Service Provider and the Training and Construction Manager are co-responsible for successful implementation of the Employer's training and development goals for Targeted Enterprises and the identified Community. The Service Provider shall thus assist and support the Training and Construction Manager by executing the following:

- i) Make recommendations to the Construction Manager in the identification and structuring of the work packages to be sub-contracted to Targeted Enterprises and agree to the scope and extent of the work packages;
- ii) Approve the Project Database(s) compiled by the Service Provider from which Targeted Enterprises will be selected to participate in the project;
- iii) Approve selection procedures, tender procedures, tender documents, tender submission requirements and adjudication processes for the sub-contracting of Targeted Enterprises;
- iv) Review all tender adjudication reports and monitor that the criteria and procedures applied by the Construction Manager to sub-contract Targeted Enterprises are executed in a fair and transparent manner and are within the Employer's and Government's Supply Chain Management Policies;
- v) Approve sub-contract agreements and ensure that the conditions of sub-contracting with Targeted Enterprises are fair and transparent and within the prescripts of the contract requirements;
- vi) Verify that the Project Database(s) compiled by the Service Provider from which Targeted Enterprises' labour will be employed is updated prior to every new labour intake;
- vii) Monitor that the criteria and procedures applied by the Construction Manager and the Targeted Enterprises to employ labour are executed in a fair and transparent manner and is within the contract requirements;
- viii) Monitor that the conditions of employment of the Construction Manager and the Targeted Enterprises' labour are applied in a fair and transparent manner and within the prescripts of the current and relevant Labour Legislation;

b) Monitoring of the Training and Development Component

For the duration of the theoretical and practical training of project beneficiaries, as well as during the mentoring (construction) phase, the Engineer shall:

- i) Visit the classroom, training facility or site at least 2 (two) times a month on separate occasions.

- a. The first monthly visit shall be to peruse the training material provided by the Training and Construction Manager to Learners, monitor the progress of Learners, engage with Learners to establish the effectiveness and quality of the learning experience and discuss progress and challenges with the Construction Manager.
 - b. Once Learners have become sub-contractors to the Construction Manager for the construction of the Works under his mentorship, the first monthly meeting shall also entail a meeting with all the SMME sub-contractors (project beneficiaries).
 - c. The second monthly visit shall be to meet with the Employer and the Training and Construction Manager to discuss project progress and challenges.
- ii) Confirm that the Training and Construction Manager's Practitioners, Assessors and Moderators are accredited and registered with the Construction Education Training Authority (CETA) to present the relevant Unit Standards.
 - iii) Confirm that the Training and Construction Manager's Mentors and Supervisory staff have the necessary experience and that an adequate number of Mentors and Supervisory staff is available to mentor and oversee the work of the SMME sub-contractors.
 - iv) Monitor and continuously make recommendations to the Construction Manager in the identification of the training requirements of Targeted Enterprises and their labour and approve the proposed training programmes.
 - v) Monitor the management and mentoring of Targeted Enterprise sub-contracts and ensure that conditions such as the application of penalties, etc. are applied in a fair and transparent manner and within the prescripts of the agreement, including signing off a monthly report agreed with each Targeted Enterprise sub-contractor on mentoring outcomes and further needs identified;
 - vi) Monitor that training, development and support programmes, which the Construction Manager is committed to, are implemented and executed as intended.
 - vii) Compile a monthly Training and Development Progress Report, which will outline the progress made in reaching the training and developmental goals set for the CD project.

c) Fulfilling the Functions of the Engineer

The duties of the Engineer shall be in accordance with the Employer's standard requirements and shall, inter alia, include:

- i) Conduct meetings with project Stakeholders and affected or the identified Communities and relevant forums, if necessary, to establish communication channels and to determine issues impacting on the Training and Development Works Contract implementation and construction phase.
- ii) Appoint suitable, able and competent site staff, together with the administration of such staff (including those of any independent Service Provider/s as approved).
- iii) Arrange and attend monthly technical and site meetings and keeping minutes of such meetings. Monthly meetings shall also be conducted during the theoretical and practical training phases of the project.
- iv) Make arrangements on behalf of the Employer for the provision and reproduction of drawings and documents that may be required by the Training and Construction Manager and site staff for the execution of the Works.
- v) Fulfil all functions and obligations stated or implied for the Engineer, and delegated to the Engineer's Representative, in the Employer's Particular Conditions of Contract, Standard Specifications or Scope of Works or any other document applicable to the control and administration of a Training and Development Works Contract.
- vi) Issue instructions to the Training and Construction Manager, coordinate and generally inspect the implementation and construction of the Works for compliance with the Contract at such intervals as appropriate for the proper

- inspection of the Works, direct site staff and delegate the detailed and day-to-day supervision and inspection of the Works and site administration.
- vii) Advise the Employer regarding the inspection and testing of materials and plant as are usually inspected and tested and arrange for inspection and testing to be carried out in accordance with current appropriate codes, manuals and guidelines.
 - viii) Arrange for the carrying out of performance or acceptance tests and surveys as required by the Employer. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of acceptance testing required for each lot. The data will need to be uploaded into the SARDS portal by Service Provider as per the SARDS interface and then analysed using SARDS, if applicable for this CD project.
 - ix) Ensure regular inspections by the Design Specialists for all work on the project.
 - x) Approve all materials and ensure compliance of materials mix designs to the specifications. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS for approval of materials, if applicable for this CD project.
 - xi) Actively manage, report and assist the Training and Construction Manager on training, development and the empowerment programmes committed to by the Contractor in relation to his tendered Contract Participation Goals. Report and sign off on monthly basis, the mentorship programme for Targeted Enterprises provided by the Training and Construction Manager and ensure that all needs of the Targeted Enterprises are recorded monthly and dealt with as the need arises. The monthly report shall be agreed with the Targeted Enterprises, which shall also be signed by each Targeted Enterprise undergoing mentorship.
 - xii) Monitor and report monthly on training, empowerment, capacity building, and development of Targeted Enterprises, labour and staff returns, and any such aspects on the Employer's ITIS Project Information Module. Separate allowance for payment for this duty has been made in the Pricing Schedule.
 - xiii) Monitor and report on conformance to all relevant Occupational Health and Safety legislation including regular internal audits to be conducted by the Service Provider's nominated specialist, arrangement for visits by the Designer at identified critical phases of construction and record and report Section 24 incidents.
 - xiv) Monitor and report on conformance to all relevant Environmental legislation and requirements.
 - xv) Check and control quantities measured and agreed by the Training and Construction Manager and the site supervisory staff and settling any disputes that may arise in this regard. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS for controlling of quantities measured, if applicable for this CD project.
 - xvi) Issue certificates for payment to the Training and Construction Manager in accordance with the Conditions of Contract.
 - xvii) Review and analyse claims and/or disputes or differences that may arise between the Employer and Training and Construction Manager. Present to the Employer the Engineer's review and analysis for discussion and consultation before the Engineer's decision is made known to the Parties. All duties pertaining to disputes will be paid for under Additional Duties.
 - xviii) Issue Works Authorisations as agreed with, and approved by, the Employer.
 - xix) Provide the Employer with progress, monthly materials and laboratory and other reports on all aspects of material importance regarding the Works.
 - xx) Identification of risks to the Employer under the Training and Development Works Contract, as well as communicating mitigation measures to the Employer.
 - xxi) Provide the Employer within 3 (three) months of issuing the Taking-over Certificate of the Works with such draft construction reports, materials as-built records, as-built plans in PDF format and all other documents normally associated with contract administration. The final reports and records shall be provided within 1 (one) month of the issue of the Performance Certificate for the Training and Development Works Contract.

- xxii) Certain construction monitoring duties may be delegated to the Engineer's Representative (RE).
- xxiii) Receive the Training and Construction Manager's proposed programme, analyse it, comment on it and when found acceptable write to the Construction Manager stating that the programme is acceptable.
- xxiv) Conduct interim monthly performance evaluations on the Training and Construction Manager and a final written and signed report to be submitted to the CIDB as gazetted.
- xxv) Training of Assistant Contract Engineer (if applicable).
- xxvi) Declare structures (bridges, culverts, roads, sections of roads, etc.) safe for use in writing, before it is opened for public use.

d) Head Office Administration

The Service Provider shall supply sufficient head office administrative support to the site personnel to ensure efficient and timeous administration of the Training and Development Works Contract.

The Service Provider shall furthermore be responsible for the safe keeping of all original drawings for the Works, as well as all other documentation related to the different phases of the project, for a period of at least 5 (five) years after the defects notification period. No additional payment will be made for this.

e) Occupational Health and Safety Obligations

The Service Provider shall execute the duties of the Employer, as his appointed Agent, as contemplated in the Construction Regulations (2014) to the Occupational Health and Safety Act (Act No. 85 of 1993).

The Service Provider shall arrange, formally and in writing, for the Training and Construction Manager to provide documentary evidence of compliance with all the requirements of the said Act. The Service Provider shall also carry out regular site audits to ensure compliance thereto. Should the Service Provider not have "in-house" capacity to undertake such duties, an external recognized specialist shall be appointed. This individual shall be registered with the SACPCMP as a Professional Construction Health and Safety Agent or a Construction Health and Safety Manager. Provision for payment for all OH&S obligations during the Training and Development Works Contract implementation and construction phases has been included in the Pricing Schedule.

f) Monthly Technical and Site Meetings

The appointed Engineer for the project shall visit the site at least 2 (two) times per month on separate occasions. One visit shall be scheduled for the Technical Meeting with a thorough site inspection with the Training and Construction Manager and the Engineer's Representative. A second visit shall be scheduled for the monthly Site Meeting with a thorough site inspection with the Construction Manager and the Employer's Representative.

g) Compilation of Monthly Materials and Laboratory Report

The appointed Engineer shall be responsible for the compilation of monthly materials and laboratory reports. These reports shall be in accordance with the Employer's guideline documents. The site laboratory Service Provider must supply the necessary information to be included in the report, but it will be the sole responsibility of the Engineer to ensure that the information provided is true and correct. These reports shall be submitted to the Employer's relevant Project Manager monthly for the duration of the Training and Development Works Contract. The reports shall be submitted in hard copy format. The reports shall reach the Employer by no later than the 7th of the month. No additional payment will be made for this.

h) Site Visits by Design Specialist(s)

The appointed Design Specialist(s) for the project shall visit the site to comply with the Construction Regulations of the Occupational Health and Safety Act (No 85 of 1993) as relevant for the design of the Works during the construction phase, as well as the Designer's obligations with respect to the relevant professional engineer's legislation. Furthermore, the Design Specialist(s) shall as a minimum attend the construction of trial sections including inter alia, stabilization trials, base construction trials and final surfacing trials.

i) Assistance at Clarification Meeting, Tender Period and Tender Evaluation of Sub-contract Packages

The Service Provider shall be required to assist the Training and Construction Manager with regards to the procurement of sub-contractors to comply with the specifications as described in the Training and Development Works Contract.

The specifications for the clarification meeting, tender period and tender evaluation (by an independent person) of sub-contract packages shall be similar to those in Clauses C3.6.2, C3.6.3 and C3.6.4, except for the Employer's procurement department involvement.

Allowance has been made for the requirements in the Pricing Schedule under Additional Duties.

j) Fulfilling the Duties of the Senior Materials Technician or Materials Technician

The duties of the Senior Materials Technician or Materials Technician shall be in accordance with the Employer's standard requirements and shall, inter alia, include:

- i) Work in a close relationship with the laboratory including having regular discussions with the laboratory manager about the condition, progress and standard of the laboratory;
- ii) Conduct regular laboratory inspections and draft a materials and laboratory report;
- iii) Act as liaison between the Engineer's Representative and the laboratory;
- iv) Advise the Engineer's Representative where the laboratory does not comply with the contractual and technical requirements;
- v) Prepare and sign-off materials mix and seal designs or any other relevant matter for submission to the Engineer's Representative;
- vi) Verify the requests for lot approval submitted by the Training and Construction Manager and ensure the tests requested are in line with the lot submitted. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of acceptance testing required for each lot, if applicable to this CD Project.
- vii) Ensure the laboratory is granted sufficient time for sampling with regards to every request received;
- viii) Keeps track of submission time for laboratory results. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to determine the number and locality of acceptance testing required for each lot received and verify all the test results from the laboratory manager, if applicable to this CD project.
- ix) Sign-off test reports and make recommendations for approval or rejection; With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS to approve or reject tests, if applicable to this CD project.
- x) Inspect works daily which shall inter alia include materials sources, layer works, structures and any other materials related to items on site;
- xi) Do visual inspections on materials in lots submitted for approval;
- xii) Inspect all trial sections constructed and complete as well as record trial section checklists;

- xiii) Populate progress sheets linking test requests with the position on layer works; With the release of the SARDS, Service Provider will be required to follow the standard workflow within SARDS to identify test locations, if applicable to this CD project.
- xiv) Draft the monthly materials and laboratory reports;
- xv) Keep as-built data up to date; With the release of the SARDS, Service Provider will be required to follow the standard workflow within SARDS to automatically update as-built data, if applicable to this CD project.

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 Training and Development Works Contract in accordance with the requirements of the 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
- iv) Trainee Technician
- v))
- vi)
- vii) Surveyor team (part time) Trainee (student)
- viii) Project Liaison Officer
- ix) Administrative Assistants (data capture)
- x) Mentors or Coaches for Targeted Enterprises (sub-contractors)

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

Provision has been made in the Pricing Schedule to cover the total annual cost of employment (TACE) of the supervisory staff which shall include the following:

- a. Basic salary.
- b. Other benefits not reflected in the basic salary, which may include:
 - i. normal annual bonus (maximum of one month's salary or part thereof if contract is less than 1 (one) year) but excluding any performance bonuses or merit bonuses;
 - ii. consulting firm's contribution to medical aid;
 - iii. group life assurance, accident and disability insurance;
 - iv. pension or provident fund contributions by the consulting firm;
 - v. allowances forming part of the remuneration package which are pensionable (car allowances, etc.);
 - vi. computer and cell phone allowance if part of package; and
 - vii. other justifiable costs and allowances approved by the Employer.
- c. costs payable due to all applicable statutory requirements such as:
 - i. Workmen's compensation fund contributions;
 - ii. Unemployment insurance contributions; and
 - iii. Other applicable statutory levies.

A standardised site staff overhead factor of 1.44 will be applied to the TACE of the supervisory staff (excluding the surveyor and his assistants, trainee (student) and Project Liaison Officer) which is made up as follows:

Table C.3.7.3.a: Site Staff Overhead Factors

Description	Site Staff Overheads
Salaries (Technical) TACE.	1.00
Salaries (Non-technical) TACE.	0.24
Telephone and communication.	Tendered item
Rental of premises, electricity, water.	Provided by Client
Transport not recovered from project.	Pay item
Paper, stationary, consumables.	Tendered item
Audit, bank charges, interest, insurance.	0.08
Marketing.	0.02
Office equipment.	Tendered item
Training and development.	0.02
Project direct expenses not recoverable.	0.08
Head Office expenses.	Tendered item
Net Overhead Factor before profit	1.44

Provision has also been made in the Pricing Schedule for additional overhead costs related to the employment of the relevant personnel, which may include the following:

- (a) overtime by salaried professional and semi-professional staff (qualified Engineers, Technologists and Technicians) and all such other staff for which overtime is not payable in terms of the Labour Act;
- (b) ordinary leave and sick leave (one month);
- (c) administration related to salaries, legislation, etc.; and
- (d) other overhead expenses and profit.

Replacement of staff due to an extended period of leave or sick leave outside the normal Contractor's year end break shall be to the approval of the Employer.

Three (3) months prior to the commencement of the Training and Development Works Contract the Service Provider shall submit for consideration and approval to the Employer a detailed proposal in the Employer's prescribed format which shall include a CV of appropriate experience and qualifications as well as a cost estimate (including salary adjustments and increases) for each required and/or proposed person on the Employer's E1K and E2K forms. In addition, the Service Provider shall complete Returnable Schedule Forms B1 and B2 for at least the Resident Engineer (RE), the Senior Materials Technician (SMT) and the Materials Technician (MT) for evaluation. Amongst other evaluation criteria to be used, shall be the individual threshold of **80 (eighty) %**, for each of the abovementioned site staff.

The annual salaries for those approved staff shall be substantiated by an auditor's certificate at the start of the project and whenever salary or staff changes occur thereafter. Prior approval is required for any salary adjustments or increases which shall be in line with CPI.

Survey services may be required on either a full time or part time basis as appropriate for the scope of the Works.

Where provision has been made in the Pricing Schedule, the surveyor shall be appointed as a sub-service provider and procured directly by the Service Provider in terms of Clause C3.1.7. The Service Provider shall enter into a sub-service agreement with the surveyor. The terms of reference with regards to the survey service on site shall be based on the requirement of the Employer as set out in Chapter 10 of Technical Methods for Highways TMH11: Standard Survey Methods.

The Employer shall be entitled to instruct the Service Provider to remove forthwith from the Works any person employed by the Service Provider on or about the execution of the Works who, in the opinion of the Employer, misconducts himself or is incompetent or negligent in the proper performance of his duties, or whose presence on site is otherwise considered by the Employer, on reasonable grounds, to be undesirable.

b) Relocation of Site Staff

Provision has been made in the Pricing Schedule for the costs to relocate the supervisory team to site.

c) Accommodation

Appropriate housing for the supervisory team will be required to be provided by the Service Provider. A provisional sum has been allowed in the Pricing Schedule for this purpose. Accommodation of the site staff shall be located as near to the Works as practically possible.

If the contract period does not justify full relocation of staff and families, the Employer may approve temporary accommodation such as a bed & breakfast establishment in lieu of rented housing. In such approved instances, only the basic accommodation costs (excluding meals) will be payable under the Training and Development Works Contract. Any allowances for services, etc. shall be approved beforehand by the Employer.

Where site staff elect to occupy their own housing and approved by Employer, payment will be made in accordance with the table below.

Table C3.7.3.b: Monthly Accommodation Allowance Rates

ANNUAL BASIC SALARY	AREA IN WHICH HOUSING UNIT IS LOCATED	
	OTHER	METROPOLITAN AREAS
Up to – R100 000	R 2 849	R 3 282
R100 000 – R200 000	R 3 610	R 4 314
R200 000 – R400 000	R 4 425	R 5 545
R400 000 and over	R 5 286	R 6 272

Note:

The amounts in this table are fixed for 1 (one) year only (01 April to 31 March of each year) regardless of the Stage of the Project. The Employer will publish revised amounts on a yearly basis.

d) Establishment of Site Office

Provision for the erection and maintenance of a site office building and all related services will be made under the Training and Development Works Contract. The Service Provider shall, however, provide sufficient office equipment to perform all required duties for the monitoring of the Training and Development Works Contract. This shall, *inter alia*, include the following:

- i) all cell phones,
- ii) safety equipment in accordance with the OHS requirements, e.g. safety jackets, rotating amber lights, safety boots, etc.
- iii) photo copiers, fax machines, modems, personal computers and printers (including all hardware and software)
- iv) consumables and stationary
- v) digital camera

One (1) landline, including rental, call and data costs for work related office and fax usage shall be provided through the Training and Development Works Contract. Should fixed connectivity not be available mobile connectivity with data shall be provided through the Training and Development Works Contract.

Provision has been made in the Pricing Schedule for supplying the equipment as well as the monthly operational costs thereof.

In addition, the Resident Engineer as his/her assistants shall be equipped with mobile phones for the Employer's ITIS mobile application, with the following minimum specification:

- a. Operating system: Android or higher.
- b. Camera resolution: 5 Meg pixels or greater, 8MP recommended.
- c. Screen resolution: 480 x 800 pixels or greater.
- d. GPS facility: Yes, with geo-tagging for images.
- e. Data connection: 3G or greater.

C3.7.4 Monitoring of the Training and Development Works Contract

The Service Provider shall ensure that all the work required under the Training and Development Works Contract is carried out in accordance with the requirements of the Contract and current best practice and shall include effective financial control. Construction monitoring shall be carried out in a pro-active manner and in accordance with the Employer's standard requirements and current best practice.

The Service Provider shall be responsible for the normal duties associated with the management and supervision of a Training and Development Works Contract, which duties shall, *inter alia*, include:

- a) Monitor and report on the Training and Construction Manager's programme.
- b) Implement Engineer's quality control plan.
- c) Monitor the Training and Construction Manager's quality control plan.
- d) Site audits, inspection, quality control testing, approval, rejection of work. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS with regard to quality control, if applicable for this CD project.
- e) Measurement and certification of completed work inclusive of cash flow forecasts.
- f) Management of ITIS software which includes the following modules:
 - i) Contract Module: Contract Management
 - ii) Project Information Module: Uploading of data including personnel and employment data.
 - iii) Structures Module: Update inventory report of the structures.
- g) Provide a final cost estimate for the work contract, on a monthly basis, including estimated costs of claims.
- h) Regular Site Meetings with Training and Construction Manager and Employer.
- i) Monitor third-party claims.

- j) Monitor and report on Training and Construction Manager's CPG commitments through ITIS.
- k) Supervision of traffic accommodation arrangements.
- l) Statutory control functions, which may include investigations into the legality of services and accesses without formal wayleave agreements and assist with the application for approval where required.
- m) Attend PLC meetings, and all other meetings relating to Targeted Enterprises and Labour.
- n) Monitor and report on the project's EMP and NEMA requirements.
- o) Implement the Engineers requirements in terms of compliance with the OH&S Act.
- p) Monitor the Training and Construction Manager's compliance with the OH&S Act.
- q) Compile all reports and as-built data in accordance with the Employer's standard requirements. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS with regard to as-built data capture, if applicable for this CD project.

Separate allowances have been made for the duties during an extended Training and Development Works Contract duration or during prolonged site stoppages (i.e. Business Rescue or Community unrest).

C3.7.5 Transport for Site Supervisory Staff and Additional Services

The Service Provider shall provide sufficient appropriate vehicles on site to carry out the duties as specified in clause C3.7.4 and C3.7.6. Only travel in the execution of these duties, as well as any other travel necessary due to additional duties as ordered by the Employer, shall be claimable. Estimated travel costs due to week end travel by site staff to their place of permanent residence shall be approved beforehand by the Employer.

Travel log sheets for each vehicle utilised shall be certified by the Engineer and included under cover of the payment certificates submitted to the Employer. The kilometre rate for all travel more than 3 000 kilometres per vehicle per calendar month shall be reduced and paid for at 60% of the rate.

The vehicle type for all supervisory staff (including PLO) shall be limited to a Category A and B vehicle with a 1 800cc Engine Volume in accordance with the table below, except for the surveyor, who shall be limited to a 2 501cc Engine Volume. In exceptional cases, the Employer may consider a different category vehicle and/or engine volume.

Table C3.7.5: Schedule of Travel Tariffs (cents per kilometre)

ENGINE VOL (cc)	A	B	C	D
Up to 1400	279 + 7.24 x PP	204 + 9.8 x PP	-	-
1401-1600	314 + 7.88 x PP	230 + 9.8 x PP	-	-
1601 – 1800	363 + 7.88 x PP	230 + 9.8 x PP	-	363 + 7.88 x PP
1801 – 2000	421 + 8.77 x PP	311 + 9.8 x PP	311 + 9.8 x PP	372 + 8.77 x PP
2001 – 2501	469 + 10.56 x PP	315 + 13.1 x PP	413 + 13.1 x PP	469 + 10.56 x PP
Over 2501	482 + 10.98 x PP	415 + 13.8 x PP	456+ 13.8 x PP	482 + 10.98 x PP

Note:

1. The formulas in this table are fixed for 1 (one) year only (01 April to 31 March of each year) regardless of the Stage of the Project. The Employer will publish revised formulas on a yearly basis.

2. "PP" is the lowest octane rating petrol price in Rand, for the month, in the city of the respective Regional Office. The "PP" rate can be downloaded from the AA website www.aa.co.za on a monthly basis.

Vehicle Classes:

- A Passenger motor cars, station wagons and 4x2 double cabs.
- B Two-wheel drive light delivery vehicle, panel vans and other similar goods vehicles with a carrying capacity up to one metric ton.
- C Four-wheel drive light delivery vehicle (single and double cab).
- D Mini busses (up to 15 seater).

C3.7.6 Project Liaison Officer (PLO)

The PLO shall facilitate and coordinate communication between the Employer, its Service Providers and the PLC to address the day to day project, Stakeholder, and Community matters that impact on the parties to the project.

The SANRAL Project Liaison Committee Guidelines requires of the PLO to execute specific duties during each stage of the project, i.e. from project initiation to project completion. Some of these duties overlap project stages and hence, a detailed description is provided here.

The PLO shall execute the following duties:

a) General Duties

- i) Except for taking the minutes of PLC meetings, which is a duty of the Engineer or his representative, the PLO shall provide a secretariat function to the PLC which includes, amongst others, the following:
 - a. Schedule meetings;
 - b. Compile meeting agendas;
 - c. Compile document packages for meetings;
 - d. Distribute minutes of meetings;
 - e. Assist the PLC to formulate their communication in writing;
 - f. Distribute written communication to and from the Employer and its Service Providers and the PLC;
 - g. Keep records of all the above and any other PLC documentation; and
 - h. Provide any other reasonable secretariat function pertaining to the PLC.
- ii) Attend all PLC meetings to report on the day to day project, Stakeholder and Community matters that impact on the parties to the project.
- iii) Attend any other meetings related to the project and in which any of the project Stakeholders and/or affected Communities are involved.
- iv) Other than the document records to be kept as mentioned above, keep record of all other documents and processes pertaining to the employment of Labour and any other records that may be of relevance to the functions of the PLC.
- v) Produce and submit a monthly report to the Employer, its Service Providers and the PLC on PLC meetings, other meetings attended by the PLO, Labour employment, and project Stakeholder, affected Community and any other project matters that impact on the parties to the project.

b) Project Initiation and Design Stages

- i) Typical information to be disseminated by the PLO to Stakeholders and the affected Communities includes:
 - a. basic Scope of the Works and how it will affect the Community;
 - b. project programme and regular progress updates;
 - c. anticipated employment and subcontracting opportunities;
 - d. project programme as it pertains to the employment and/or subcontracting of project participants and/or beneficiaries;
 - e. Occupational Health and Safety precautions; and

- f. any other information relevant to project Stakeholders and the affected Communities.
- ii) Assist Service Providers in their resources and skills audits by providing a coordinating function between the Service Providers, project Stakeholders, and the affected Communities.
- iii) Ensure that Labour databases, compiled from the resources and skills audits, are based on the agreed eligibility and selection criteria and that it is updated as and when required.

c) Project Implementation and Construction Stages

- i) Attend all monthly site meetings to report on the day to day project, Stakeholder and Community matters that impact on the parties to the project.
- ii) Maintain a full-time presence on site to monitor and address the day to day project, Stakeholder and Community matters that impact on the parties to the project.
- iii) Maintain a full-time presence on site to assist the Employer and its Service Providers in the day to day liaison with project Stakeholders and affected Communities.
- iv) Be well acquainted with the contractual requirements as it pertains to Labour employment and training requirements.
- v) Assist the Employer's Service Providers and the PLC to establish and agree the eligibility and selection criteria to be followed for the employment of Labour.
- vi) Coordinate the selection and employment of Labour, based on the agreed eligibility and selection criteria and based on Service Providers' labour requirements.
- vii) Ensure that each Labourer enters into an employment contract which adheres to current and relevant Labour legislation.
- viii) Ensure that each Labourer understands the conditions of his/her employment with an emphasis on the employment start date, end date and wages payable.
- ix) Identify and inform the Employer and its Service Providers of any relevant training required by the Labour.
- x) Attend all disciplinary proceedings to ensure that hearings are fair and conducted in accordance to the current and relevant Labour legislation.
- xi) Be proactive in identifying PLC, project Stakeholder, affected Communities (including project participants and beneficiaries), requirements, disputes, unrest, strikes, etc. and bring it to the attention of the Employer and its Service Providers.
- xii) Assist the Employer and its Service Providers to liaise with the PLC, project Stakeholders and the affected Communities to resolve any disputes, which occurs due to the project.

C3.7.7 Measurement and Payment

Item	Description	Unit
3.7.1	Administration and Monitoring of the Works Contract	
(a)	Roads works	Lump Sum (LS)
(b)	Structures	Lump Sum (LS)
(c)	Electrical	Lump Sum (LS)
(d)	Buildings	Lump Sum (LS)
(e)	Mechanical	Lump Sum (LS)
(f)	Other	Lump Sum (LS)
(g)	Disbursements	Month

	(h)	Administration and Monitoring of the Works Contract for extended Works Contract period from the original Employer's estimate.	Month
	(i)	Administration and Monitoring of the Works Contract for prolonged site stoppages not under the control of the Employer.	Month
	(j)	Training of Service Provider's staff and Targeted Enterprises:	
	(i)	Assistant Contract Engineer	Provisional Sum (PS)
	(ii)	Disbursements	Prime Cost (PC)

The units of measurement under items 3.7.1(a) to (f) shall be the Lump Sum. The Lump Sums tendered shall include full compensation for all duties and requirements associated with the administration and monitoring of the Training and Development Works Contract as specified in Clauses C3.1.4, C3.7.2, C3.7.3 and C3.7.4. It shall further include for all costs, disbursements, overheads and profit but excluding the costs, disbursement and profit related to the transport and subsistence of the Engineer and Design Specialist(s).

The unit of measurement under item 3.7.1(g) shall be the Month (pro rata for part of a month). The tendered rate shall include full compensation for the transport and subsistence of the Engineer and Design Specialist(s) as well as all related costs, disbursements and profit.

The unit of measurement under items 3.7.1(h) and (i) shall be the Month (pro-rata for part of a month). The rate tendered shall include full compensation for all duties and requirements associated with the administration and monitoring of the Training and Development Works Contract as specified in Clauses C3.1.4, C3.7.2, C3.7.3 and C3.7.4 during an extended Works Contract duration or prolonged site stoppages not under the control of the Employer. It shall further include for all costs, disbursements, overheads and profit, but excluding the costs, disbursements and profit related to the transport and subsistence of the Engineer and Design Specialist(s) during an extended Training and Development Works Contract duration or prolonged site stoppages not under the control of the Employer.

The Provisional Sum under item 3.7.1(j)(i) shall include full compensation for the remuneration of the Assistant Contract Engineer but shall be limited to 25% (twenty percent) of Total Annual Cost of Employment of the individual approved as assistant.

The Prime Cost sum under pay item 3.7.1(j)(ii) is to cover the disbursement cost of the Assistant Contract Engineer for attending monthly meetings.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description	Unit
3.7.2	Occupational health and Safety Obligations	
(a)	Continuous compliance and monthly internal audits	Month
(b)	External site audits	Provisional Sum (PS)
(c)	Handling costs i.r.o. sub-item 3.7.2(b)	Percentage (%)

The unit of measurement under item 3.7.2(a) shall be the Month (pro rata for part of a month). The tendered rate shall include full compensation for all costs, including personnel, transport, accommodation and subsistence of the Occupational Health and Safety Specialist for fulfilling the Service Provider's obligations as the Employer's agent with respect to the requirements of the Construction Regulations of the Occupational Health and Safety Act (Act 85 of 1993).

The Provisional Sum under item 3.7.2(b) shall be for the services of an independent auditor whom the Service Provider shall procure and to be approved by the Employer. The Provisional Sum shall cover all the independent auditor's costs for travel, accommodation and fulfilment of the service (including reports) and shall be paid for in accordance with Clause C2.18.

The minimum requirement for qualification and experience for the OHS Specialist are specified in Clause C3.1.11.

The unit of measurement under item 3.7.2(c) shall be a Percentage (%). The rate tendered (%) shall include for all costs associated with the planning, scheduling, compilation of quotations, issuing of quotations in electronic and/or paper format and evaluation for the procurement of the sub-service, as well as handling fees.

Payment under these pay items may only be claimed from the date of official hand-over of the Works to the Training and Construction Manager up to and including 1 (one) month after the issue of the Taking-Over Certificate.

Contract price adjustment shall be applicable to 3.7.2(a) in accordance with Clause C2.1.6.

Item	Description	Unit
3.7.3	Establishment of Supervisory Personnel on Site	
(a)	Relocation costs of individual site personnel	Prime cost (PC)
(b)	Handling costs i.r.o. sub-item 3.7.3(a)	Percentage (%)
(c)	Establishment of office equipment	Lump Sum (LS)

The Prime Cost sum under item 3.7.3(a) shall be for all costs related to establishing the individual supervisory personnel on site and their removal after completion of the Works, as approved by the Employer. The Prime Cost shall be paid for in accordance with Clause C2.1.8.

The unit of measurement under item 3.7.3(b) shall be a percentage (%). The rate tendered (%) shall be made on the amount spent on item 3.7.3(a) and shall include full compensation for the handling costs of the Service Provider.

The unit of measurement under item 3.7.3(c) shall be the Lump Sum. The Lump Sum tendered shall be for establishing and de-establishing of all office equipment on site and shall include for all associated costs. Payment shall only be made once all office equipment has been established on site.

Contract price adjustment shall be applicable to item 3.7.3(c) in accordance with Clause C2.1.6.

Item	Description	Unit
3.7.4	Provision of Supervisory Staff and Equipment	

	(a)	Site supervisory staff	Provisional Sum (PS)
	(b)	Mark-up i.r.o. sub-item 3.7.4(a)	Percentage (%)
	(c)	Surveyor and assistants	Prime Cost (PC)
	(d)	Mark-up i.r.o. sub-item 3.7.4(c)	Percentage (%)
	(e)	Provision and monthly cost of office equipment	Month
	(f)	Project Liaison Officer (PLO)	Provisional Sum (PS)
	(g)	Mark-up i.r.o. sub-item 3.7.4(f)	Percentage (%)
	(h)	Accommodation for supervisory staff	Provisional Sum (PS)
	(i)	Mark-up i.r.o. sub-item 3.7.4(h)	Percentage (%)

The Provisional Sum under item 3.7.4(a) is to cover the monthly (pro rata for part of a month) Total Annual Cost of Employment (TACE) (including a 1.44 site staff overhead factor) of the supervision staff (excluding surveyor and his assistants, trainee (student) and Project Liaison Officer (PLO)) as listed in Clause C.3.7.4 and approved by the Employer.

Payment under this pay item shall only be applicable for the period established on site and shall in no instance be prior to the date of official hand-over of the Training and Works Contract to the Training and Construction Manager or after 28 days of the date of the Taking-Over Certificate for the Training and Development Works Contract. The TACE shall be verified by means of an audited statement.

The unit of measurement for pay item 3.7.4(b) shall be a percentage (%). The rate tendered (%) shall include full compensation for all additional overhead costs related to the employment of the relevant personnel as specified in Clause C3.7.4(a).

The Prime Cost sum under item 3.7.4(c) shall cover for all costs related to establishing a surveyor, survey assistants and all equipment on site and their removal after completion of the Works, as approved by the Employer. It shall further include for the full survey services including the accommodation. Transport for this service shall be paid under item 3.7.6.

The unit of measurement under item 3.7.4 (d) shall be a Percentage (%). The rate tendered (%) shall include for all administrative costs and handling fees.

The unit of measurement under item 3.7.4(e) shall be the Month (pro rata for part of a month). The rate tendered for office equipment shall include full compensation for supplying and maintaining all office equipment as specified in Clause C3.7.4(d), including all incidentals, all monthly charges such as cell phone and mobile data costs and insurance to operate the equipment.

The Provisional Sum under item 3.7.4(f) is to cover the Total Annual Cost of Employment (TACE) of a PLO on site as specified in Clause C3.7.7.

The unit of measurement under item 3.7.4(g) shall be a percentage (%). The rate tendered (%) shall include for all costs associated with the sourcing, employment and mentoring of the PLO.

The Provisional Sum under item 3.7.4(h) is to cover the cost of accommodation for supervisory staff.

The unit of measurement under pay item 3.7.4(i) shall be a Percentage (%). The rate tendered (%) shall include for all costs associated with the reimbursement by the Service Provider for rented accommodation, as well as handling fees and profit.

The provisional and prime cost sum items shall be paid for in accordance with Clause C2.1.8.

Contract price adjustment shall be applicable to sub-item 3.7.4(e) in accordance with Clause C2.1.6.

Item	Description	Unit
3.7.5	Training	
	(a) Employer's candidate engineers	Person Month
	(b) Students (engineering or surveying) receiving experiential training.	Person Month
	(c) Student stipend	Provisional Sum (PS)

The units of measurement under items 3.7.5(a) and (b) shall be the Person Month. The rates tendered shall include full compensation for the Service Provider's costs to provide training to the different categories of trainee inclusive of all costs to communicate with the Employer and any other body or organisation in respect of work assigned to the trainees as specified in Clause C3.1.19. The rate tendered shall also include telephone calls and charges, stationery and information technology hardware, software, connection or licence costs and for lost production, profits and all other incidentals as well as all administrative and overhead costs.

Pro-rata payments shall be made for partial months of training provided based on a 23 work day month.

The Provisional Sum under item 3.7.5(c) is to cover the monthly stipends as prescribed by the Employer to be paid to the students. The Provisional Sum item shall be paid in accordance with Clause C2.1.8.

Contract price adjustment shall be applicable to sub-items 3.7.5(a) and (b) in accordance with Clause C2.1.6.

Item	Description	Unit
3.7.6	Transport for Site Supervisory Staff and for Additional Services	
	(a) Travelling to perform duties	Provisional Sum (PS)
	(b) Mark-up i.r.o. item 3.7.6(a)	Percentage (%)
	(c) Toll fees	Prime Cost (PC)

The Provisional Sum under item 3.7.6(a) is to cover the cost of travelling to perform the duties as specified in Clause C3.7.6 and any additional duties as may be ordered by the Employer. The rate for transport in excess of 3 000km per vehicle, per month shall, however, be reduced and paid for at 60% of the rate. Completed log sheets for each vehicle shall be certified by the Engineer and included in the monthly payment certificate. The provisional sum item shall be paid in accordance with Clause C2.1.8.

The unit of measurement under item 3.7.6(b) shall be a Percentage (%). The rate tendered (%) shall include for all administration, handling cost and profit incurred by the Service Provider.

The Prime Cost sum under item 3.7.6(c) is to cover the cost of toll fees for site supervisory staff performing their duties. Payment will only be made for E-tag transactions upon proof of an official statement via the Employer's Transaction Clearing House (TCH), which is the integrated fee collection and information management process for Electronic Tag Collection (ETC) accounts.

Item	Description	Unit
3.7.7	Assistance at Clarification Meeting, Tender Period and Tender Evaluation of sub-contract packages	
	(a) Service Provider's cost	Number
	(b) Tender Evaluation	Number
	(c) Evaluation Report	Number

The unit of measurement under item 3.7.7(a) shall be the Number of clarification meetings held. The rate tendered shall include for all cost incurred by the Service Provider with respect to the duties for assisting the Training and Construction Manager at the clarification meeting and tender period as specified.

The unit of measurement under item 3.7.7(b) shall be the Number of sub-contract and/or work packages evaluated by an independent person. The rate tendered shall include full compensation for time related costs associated with the evaluation of each sub-contract and/or work package and the compilation of a Tender Report.

The unit of measurement under item 3.7.7(c) shall be the number of evaluation reports compiled by an independent person. The rate tendered shall include full compensation for all disbursements, material, printing and other costs associated with the evaluation and compilation of the Tender Evaluation Reports.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description	Unit
3.7.8	Environmental Services during Construction Phase	
	(a) Environmental services	Prime Cost (PC)
	(b) Cost for procuring and managing sub-service provider under item 2.7.8(a).	Lump Sum (LS)

The Prime Cost sum under item 3.7.8(a) shall cover the cost for the environmental sub-service provider to provide the environmental service. The Prime Cost item shall be paid in accordance with Clause C2.1.8.

The Lump Sum under item 3.7.8(b) shall include all costs associated with the planning, scheduling, compilation of quotation or tender documentation, issuing of up to 10 (ten) quotation or tender documents in electronic and/or paper format and evaluation for the procurement and management of the sub-service, including administrative cost and handling fees.

SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

CONTRACT SANRAL C.002-025-2018/1S

CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

Contract price adjustment shall be applicable to sub-item 3.7.8(b) in accordance with Clause C2.1.6.

C3.8 ADDITIONAL DUTIES, SPECIAL SERVICES AND SPECIALIST ADVICE

C3.8.1 Scope

This section covers additional work, other special services and specialist advice, reporting and other duties, including a dispute process, etc. that the Service Provider may be required to undertake over and above the normal duties and obligations as specified. It also covers the cost of structured engagement with the Project Liaison Committee (PLC), project Stakeholders and the affected and/or identified Community, including the development and ongoing maintenance and updating of a Targeted Enterprise and Labour Databases.

C3.8.2 Additional Duties, Special Services and Specialist Advice

a) By the Service Provider

The Employer may order additional duties, special services and specialist advice that fall outside the specified scope. Such additional duties, special services and specialist advice may involve, but shall not be limited to:

- i) additional design requirements;
- ii) evaluation of alternative tenders as specified in Clause C3.6.5;
- iii) additional investigations during the Defects Notification Period;
- iv) special services and specialist advice as specified in Clause C3.3.6;
- v) diverse other services, etc.;
- vi) establishment and liaison with the PLC during all project phases;
- vii) establishment and maintenance of databases; and
- viii) disputes.

Allowance is made in the Pricing Schedule for payment on a time basis for any such work that may be required. The level of expertise necessary for any such work shall be concomitant with the issues to be addressed.

Any additional duties, special services and specialist advice shall be fully scheduled and submitted to the Employer for approval prior to the commencement therewith.

b) By the Employer

Additional duties performed by the Employer may involve, but shall not be limited to:

- i) re-evaluation of any replacement personnel by the Tender Evaluation Panel; and
- ii) reviewing of draft documentation submitted more than once.

Allowance is made in the Pricing Schedule for payment on a time basis for any such service performed more than once.

C3.8.3 Payment and Monthly Reporting

When submitting interim certificates for payment, the Service Provider shall use the Employer's standard forms and formats. No payment can be made before the Service Provider is registered as a vendor on the Employer's system.

The Service Provider shall submit payment certificates for all work rendered in the Employer's financial year within the specific year.

The Service Provider shall submit and update, on a monthly basis, a cash flow forecast for the remuneration of the full service to be rendered.

The Service Provider shall use the ITIS platform and modules to perform certain duties and to provide required information as listed in C3.1.21.

This includes using the Employer's different ITIS platforms:

- a) ITIS Web
- b) ITIS Desktop
- c) ITIS Mobile

The current modules applicable to this contract (modules can be running on any of the above platforms) and their description are as follows:

- i) Contract Module – management of contracts
- ii) Project Information Module – uploading of employment and training data
- iii) Structures Module – uploading of structures details

The Service Provider shall use the South African Road Design System (SARDS) platform and modules to perform certain duties and to provide required information. The South African Road Design System provides a comprehensive framework to facilitate the process of pavement design. The process is initiated with the registration of projects at the road authority for tender purpose. Projects listed for tender are open to view by accredited users and these projects are populated with available network level data. The SARDS portal provides convenient viewing capability for Design Engineers to gain insight into the design requirements of the project.

Once appointed for the design of a specific project, the Design Engineer is supported with an array of tools through the SARDS portal that incorporates the latest pavement engineering technology.

a. Design Investigation

A data management system that allows for capturing, viewing and processing of vast volumes of data associated with the design investigation process. Data views are presented in a linear viewer format that is easy to navigate. State-of-the-art data analysis procedures including:

- i. Classification of visual condition data using the deduct point system.
- ii. Comprehensive deflection bowl analysis.
- iii. Dynamic homogenous section demarcation using automated change-point detection.
- iv. Point-by-point back-calculation of effective layer stiffness moduli using the latest multi-layer and numerical optimisation routines.
- v. A materials information system that:
 - (a) Allows for capturing materials test results from existing pavement layers as well as potential external material sources including borrow-pits and commercial sources.
 - (b) Prepares the necessary materials related input for the performance simulation component of the SARDS.

b. Performance Simulation

Combined simulation of structural and functional pavement deterioration using mechanistic-empirical techniques. This also include Economic assessment of different pavement design alternatives with consideration of road authority and road user cost.

c. Construction Quality Assurance

- i. Quality assurance material test units based on TMH1 and the latest SANS 3001 test methods
- ii. Quality assurance adjudication schemes based on COLTO 8200 and 8300
- iii. Automated quality assurance and as-built reporting

Allowance has been made for these requirements in the Pricing Schedule under payment item 3.8.5: Payment of Monthly Reporting Costs. Failure to fully comply with the duties as

listed above may result in payments being withheld and/or termination in terms of Clause 8.4 of the Conditions of Contract.

C3.8.4 Measurement and Payment

Item	Description	Unit
3.8.1	Additional Duties by the Service Provider	
	(a) Personnel cost	
	(i) Category A	Hour (hr)
	(ii) Category B	Hour (hr)
	(iii) Category C	Hour (hr)
	(iv) Category D	Hour (hr)
	(b) Disbursements	Prime Cost (PC)
	(c) Handling cost i.r.o. sub-item 3.8.1(b)	Percentage (%)

The unit of measurement under item 3.8.1(a) shall be the Hour. The hourly rates provided under the different categories is deemed to include full compensation for all work related to the provision of additional duties extra-over the normal duties as specified and as ordered by the Employer.

The Prime Cost sum under item 3.8.1(b) is to cover the disbursement cost of personnel accommodation, travel and subsistence associated with the undertaking of additional duties. Transport by private vehicle, if required, shall be paid at the rates under Section C3.7.

The Prime Cost shall be paid in accordance with Clause C2.1.8.

The unit of measurement under item 3.8.1(c) shall be a Percentage (%). The rate tendered (%) shall include for all administrative costs and handling fees.

Contract price adjustment shall be applicable to sub-items 3.8.1(a) and (c) in accordance with Clause C2.1.6.

Item	Description	Unit
3.8.2	Additional Duties by the Employer	Hour (hr)

The unit of measurement under item 3.8.2 shall be the Hour. The negative hourly rates provided shall be for additional duties carried out by the Employer's personnel as specified in Clauses C3.1.11, C3.5.3 and C3.8.2(b).

The minimum time will always be 2 (two) hours per Key Person re-evaluated and actual hours will be charged for reviewing draft documentation submitted more than once. The value shall be deducted from the Service Provider's interim monthly account immediately after being informed by the Employer.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description		Unit
3.8.3	Special Service and Specialist Advice		
	(a)	Special service and special advice provided by Service Provider	
	(i)	Category A	Hour (hr)
	(ii)	Category B	Hour (hr)
	(iii)	Category C	Hour (hr)
	(iv)	Category D	Hour (hr)
	(b)	Special service and special advice procured by Service Provider	Prime Cost (PC)
	(c)	Handling cost i.r.o. sub-item 3.8.3(b)	Percentage (%)

The unit of measurement under item 3.8.3(a) shall be the Hour (hr). The hourly rates provided under the different categories is deemed to include full compensation for all work related to the provision of the special service or specialist advice as specified in Clause C3.3.6.

The Prime Cost sum under item 3.8.3(b) shall cover the cost for service or advice procured by the Service Provider. The Prime Cost item shall be paid in accordance with Clause C2.1.8.

The unit of measurement under item 3.8.3(c) shall be a Percentage (%). The rate tendered (%) shall include full compensation for all costs associated with the planning, scheduling, compilation of quotation or tender documentation, issuing of up to 10 (ten) quotation or tender documents in electronic format and evaluation for the procurement and management of the sub-service including administrative cost and handling fees.

Contract price adjustment shall be applicable to sub-item 3.8.3(a) in accordance with Clause C2.1.6.

Item	Description	Unit
3.8.4	Training of Targeted Enterprise Understudy	Provisional Sum (PS)

The Provisional Sum under item 3.8.4 shall include full compensation for the Service Provider's cost of training of Targeted Enterprises as understudy to the Contract Engineer (CE) including for all personnel and other costs, disbursements, overheads and profit.

The Provisional Sum shall be paid in accordance with Clause C2.1.8.

Item	Description	Unit
3.8.5	Payment and Monthly Reporting Cost	Month

The unit of measurement under item 3.8.5 shall be the Month. The rate tendered shall include full compensation for registering on the Employer's ITIS Project Information Module

and for the management of the ITIS Software Modules (Contract, Information and Structures Modules) as specified in Clause C3.1.21.

It shall also include full compensation for capturing and submitting the required information regarding training, empowerment, capacity building, Targeted Enterprise development, labour and staff returns during the design and construction stage for both the Training and Construction Manager and the Consulting Engineer. It shall further include for all personnel and other costs, disbursements, overheads and profit.

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

Item	Description		Unit
3.8.6	Engagement with Project Liaison Committee (PLC), project Stakeholders and affected Communities		
	(a)	Establishment of PLC	Lump Sum (LS)
	(b)	Liaison and meetings with the PLC during all project phases	Provisional Sum (PS)
	(c)	PLC stipends	Provisional Sum (PS)
	(d)	Handling cost i.r.o. item 3.8.6(c)	Percentage (%)
	(e)	Training of PLC members	Provisional Sum (PS)
	(f)	Handling cost i.r.o. item 3.8.6(e)	Percentage (%)

The unit of measurement under item 3.8.6(a) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all costs associated with the establishment of the PLC.

The Provisional Sum under item 3.8.6(b) is to cover all costs associated with liaison and attending meetings with the established PLC during all project phases.

The Provisional Sum under item 3.8.6(c) is to cover the monthly payments to PLC members as prescribed by the Employer.

The unit of measurement under item 3.8.6(d) shall be a Percentage (%). The rate tendered (%) is for the mark-up or other incidental costs incurred by the Service Provider.

The Provisional Sum under item 3.8.6(e) is to cover all costs associated with training PLC members on their duties and responsibilities.

The unit of measurement under item 3.8.6(f) shall be a Percentage (%). The rate tendered (%) shall include full compensation for all cost associated with producing a schedule of training requirements, compiling a quotation or tender document, evaluation of quotations or tenders received and for the procurement of a training Service Provider on approval by the Employer.

The Provisional Sums shall be paid in accordance with Clause C2.1.8.

Item	Description		Unit
3.8.7	Skills and Resources Audit, Market Analysis and Compilation of Databases		

	(a)	Skills and Resources Audit and Market Analysis	Lump Sum (LS)
	(b)	Establish and maintain Targeted Enterprise database(s)	Lump Sum (LS)
	(c)	Establish and maintain Labour database(s)	Lump Sum (LS)

The unit of measurement under item 3.8.7(a) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all costs associated with the skills and resources audit and market analysis in term of CIDB guidelines for undertaking a feasibility study (CIDB grading, CSD, etc.).

The units of measurement under item 3.8.7(b) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all costs associated with the compilation and maintenance of a Targeted Enterprise database during all project phases.

The units of measurement under item 3.8.7(c) shall be the Lump Sum. The Lump Sum tendered shall include full compensation for all costs associated with the compilation and maintenance of a Labour database during the Construction Phase.

Item	Description		Unit
3.8.8	Provision of Social Facilitation Services		
	(a)	Social Facilitator	Provisional Sum (PS)
	(b)	Mark-up costs i.t.o. item 3.8.8(a)	Percentage (%)

The Provisional Sum under item 3.8.8(a) is to cover the monthly (or pro-rata of a month) Total Annual Cost of Employment (TACE) for the provision of social facilitation service as specified in Clause C3.1.7(k).

The provisional sum shall be paid for in accordance with Clause C2.1.8.

The unit of measurement under item 3.8.8(b) shall be a Percentage (%). The rate tendered (%) shall include for all costs associated with the sourcing and employment of a Social Facilitator.

C3.9 QUALITY CONTROL OF THE TRAINING AND DEVELOPMENT WORKS CONTRACT

C3.9.1 Materials

a) Scope

This section covers the requirements for the provision and quality management of a site laboratory established or commercial laboratory to carry out the necessary materials testing and construction quality of the Works.

b) Standards

The Service Provider shall procure a fully operational laboratory and administer the laboratory to undertake the relevant investigative testing as well as process and acceptance control testing in accordance with specified requirements of the Training and Development Works Contract as well as the Employer's standard requirements. A provisional sum has been allowed in the Pricing Schedule for this service. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS with regard to administration of the laboratory, if applicable to this CD project.

The laboratory shall be a SANAS accredited laboratory or operate under the umbrella of a SANAS accredited main laboratory that shall be responsible for ensuring that all sampling and testing is carried out accurately and strictly in accordance with the relevant test methods as well as the SANAS accreditation requirements.

c) Duties and Responsibilities

i) Establishment and Operation of the Laboratory

Where a site laboratory is required, provision for the erection of a laboratory building, together with workbenches, services, furniture etc. will be made under the Training and Development Works Contract, the planning and documentation for which shall be included in the tender documentation stage.

The Service Provider shall procure the services of a sub-service provider for laboratory services via a tender process in accordance with Clause C3.1.12. The successful sub-service provider shall be SANAS accredited and able to provide laboratory equipment and competent staff for the operation of the laboratory. The requirements in terms of the laboratory shall be specified in the sub-contract based on the Employer's pro-forma document. The appointment of the appropriate laboratory shall be approved by the Employer.

The Service Provider shall ensure the supply of such laboratory equipment as necessary to carry out the required testing relevant to the scope of the Works. All equipment shall conform strictly to SANAS accreditation requirements and/or the specifications as listed in the relevant test methods. With the release of the SARDS, the Service Provider will be required to follow the standard workflow within SARDS with regard to administration of the laboratory, if applicable to this CD project.

ii) Testing of Materials Off-site

Any testing which may be of such a low frequency as to not warrant the establishment of the relevant equipment and staff on site, or being of a specialised nature, shall be carried out in an off-site SANAS accredited commercial laboratory or the National Reference Laboratory. A provisional sum has been allowed for the costs of this testing.

C3.9.2 Survey

a) Scope

This section summarises the requirements for the provision of a site survey service to carry out the necessary survey quality control on the Works as specified in Technical Methods for Highways TMH11: Standard Survey Methods.

The purpose of this service is to ensure that the works are constructed as designed and specified and the relevant records are kept up to date. In this regard, the service shall provide for, *inter alia*:

- i) The verification of existing control or the establishment of new control and the supply of the data.
- ii) The verification of all relevant setting out work carried out by the Training and Construction Manager.
- iii) The verification that the works are constructed within tolerances specified.
- iv) The verification of relevant quantities for measurement purposes.
- v) The checking of designs from a setting out point of view.
- vi) The verification of construction records (as-built data).
- vii) To undertake any survey work as required by the Engineer.

A provisional sum has been allowed in the Pricing Schedule for this service under pay item 3.7.4.

b) Standards

The service shall be undertaken in accordance with TMH11 requirements, COTO Standard Specifications and Project Specifications.

c) Staking of Road Reserve Fence Positions

Before any fence is erected or replaced under the contract, the correct position of the fence must be verified by the Employer's PSP.

All requests for verification of the road reserve must be done via the Regional survey representative. Such a request must include the following information:

- i) Route and section.
- ii) Start and end as per blue marker boards.
- iii) Anticipated date when work will commence.
- iv) Contact person on site and his/her contact details.

d) Procurement of the Survey Service

The Service Provider shall procure the services of a sub-service provider for survey in accordance with Clause C3.1.17. A prime cost sum has been allowed in the Pricing Schedule for this service under pay item 3.7.4.

e) Independent Survey Audits

As site supervision survey is a specialised function. The Employer may wish to appoint an independent audit surveyor for each site or the audit surveyor may be assigned a number of sites under his supervision.

The audit surveyor shall liaise with the Resident Engineer and conduct monthly audits with the surveyor to:

- i) satisfy the audit team that all the required functions have been attended to;
- ii) check suitable equipment is used to undertake this function;
- iii) check that the equipment claimed for as part of the quality control function is on site and in good working condition;
- iv) check survey procedures and methodology utilised on site;
- v) check the processing of survey data;

- vi) check frequency of checks undertaken and the results obtained;
- vii) check the efficiency of the data submitted for control purposes;
- viii) evaluate the standard of recommendations made to the Resident Engineer with regards to all phases of the checked work;
- ix) check all records and the back-up of records;
- x) check the signing off of records and the pointing out of non-conformance;
- xi) determine how the supervisory surveyor is utilised by the Resident Engineer and whether the Employer gets value for the money spent;
- xii) provide experiential training specifications, programs and compliance requirements as defined by the relevant academic qualification criteria;
- xiii) provide registration procedures and programs to ensure that trainees are able to achieve registration status with the South African Geomatics Council;
- xiv) attend to training and the implementation of new procedures on site;
- xv) check training material and report on the quality of training; and
- xvi) interview trainees and report on progress.

The audit surveyor will do a monthly audit report that shall be submitted to the Engineer and the Employer.

C3.9.3 Measurement and Payment

Item	Description	Unit
3.9.1	Laboratory Testing	
(a)	Provision of a fully operational laboratory	Prime Cost (PC)
(b)	Handling cost i.r.o. sub-item 3.9.1(a)	Percentage (%)
(c)	Off-site materials testing	Prime Cost (PC)
(d)	Handling cost i.r.o. sub-item 3.9.1(c)	Percentage (%)

The Prime Cost sums under items 3.9.1(a) and (c) shall be for the laboratory testing service provided by a SANAS accredit laboratory.

The prime cost sum shall be paid in accordance with Clause C2.1.8.

The unit of measurement under item 3.9.1(b) shall be a Percentage (%). The rate tendered (%) shall include full compensation associated with the planning, scheduling, compilation of tender documentation, issuing of 10 (ten) tenders in electronic and/or paper format and evaluation for the procurement of the laboratory service, as well as handling fees.

The unit of measurement under item 3.9.1(d) shall be a Percentage (%). The rate tendered (%) shall include full compensation for procurement of the off-site laboratory testing in terms of the Employer's requirements, as well as handling fees.

C3.10 PROJECT CLOSE OUT

C3.10.1 Scope

This section covers the fulfilling and completion of the project close-out including necessary documentation to facilitate effective completion, hand-over and operation of the project.

The Service Provider shall administer the Training and Development Works Contract during the period subsequent to the issuing of the Taking-Over Certificate of the Works up to and including the issuing of the Performance Certificate to the Training and Construction Manager and conclusion of the final payment certificate.

C3.10.2 Taking-over Certificate

Upon a request from the Training and Construction Manager for the Taking-over Certificate (TOC) to be issued in terms of the Conditions of Contract, the Engineer shall establish compliance with the Training and Development Works Contract for a TOC to be issued.

The Service Provider shall undertake a full inspection of the Works (which shall include the health and safety aspects as far as reasonably practicable) to identify any outstanding minor works, defects and/or damages for the compilation of a snag list. The inspection shall be undertaken by the Engineer and his representative for the Works.

After the inspection, and only when the Engineer is of the opinion that a TOC can be issued, the Service Provider shall arrange an on-site meeting and further inspection with representatives of the Employer, Training and Construction Manager and RRM Service Provider. At this meeting, parties will be presented with the snag list for consideration. There-after an inspection will follow with all the parties involved to add additional items to the snag list.

After the above meeting the Engineer shall re-establish compliance with the Training and Development Works Contract with involvement of the Employer for a TOC to be issued, failing which the whole process is to be repeated.

The TOC shall declare the structure (bridges, culverts, roads, sections of roads, etc.) safe for use as required in terms of Construction Regulation 6.1(j).

The Engineer's Representative shall be present on the site during the period required to complete the items on the snag list and monitor the completion thereof, unless otherwise agreed with the Employer.

C3.10.3 Training and Construction Manager's CIDB Performance Evaluation

The Service Provider shall undertake the required performance evaluation of the Training and Construction Manager according to the CIDB's requirements as soon as the Construction Manager requests the issuing of the TOC. The Service Provider shall submit the above to the Employer at the date of issuing of the TOC.

C3.10.4 Construction Records (As-builts) and Contract Report(s)

The Service Provider shall prepare and submit, in accordance with the Employer's standard requirements, draft construction records reflecting the Works as constructed, as well as any deviations from the designs, as well as a draft contract report(s) providing information on how the Contract was executed. Once reviewed and accepted by the Employer the Service Provider shall prepare and submit the final construction records and report(s).

C3.10.5 Performance Certificate

The Service Provider shall undertake a full inspection of the Works to identify any defects and/or damages before the end of the defects notification period. The inspections shall be undertaken by the Engineer and his representative for the Works Contract. Should both not

be available, the Service Provider shall propose a person having sufficient knowledge of assessing the Works for approval by the Employer.

After the inspection, the Service Provider shall arrange an on-site meeting and further inspection with representatives of the Employer, the Training and Construction Manager and RRM Service Provider. At this meeting, parties will be informed of the defects and/or damages identified during the inspection. There-after an inspection will follow with all the parties involved to identify any further defects and/or damages.

Once identified defects and/or damages are addressed, the Engineer shall notify the Employer that the Performance Certificate can be issued.

C3.10.6 Co-ordinate and Monitor Remedying of Defects

The Service Provider shall co-ordinate and monitor the remedying of any defects and/or damages identified during the defects notification period.

Prior to the provision of any service under this sub-clause the Service Provider shall submit to the Employer for approval a schedule of personnel necessary to undertake the additional services including a cost estimate. Payment for this service shall be made in terms of Clause C.3.8.

C3.10.7 Final Payment Certificate

Prior to the compilation of the final payment certificate, the Engineer shall ensure that all items on the Employer's checklist are complied with. The signed off checklist shall be submitted with the final payment certificate.

The Engineer shall only compile and submit the final payment certificate once the Performance Certificate has been issued by the Employer and all unfulfilled financial obligations have been resolved.

C3.10.8 Extended Guarantees

Where the Service Provider is required to perform services (e.g. inspections after the completion date of the Training and Development Works Contract) relating to extended guarantees for the Works Contract (e.g. Product Performance Guarantees), separate arrangements for remuneration will be made by the Employer under Additional Duties.

C3.10.9 Measurement and Payment

Item	Description		Unit
3.10.1	Close Out		
	(a)	Road Works	Lump Sum (LS)
	(b)	Structures	Lump Sum (LS)
	(c)	Electrical	Lump Sum (LS)
	(d)	Buildings	Lump Sum (LS)
	(e)	Mechanical	Lump Sum (LS)
	(f)	Other	Lump Sum (LS)

The unit of measurement under items 3.10.1(a) to (f) shall be the Lump Sum. The rate tendered under each item shall include full compensation for all duties and requirements associated with the close out stage. It shall further include for all costs, disbursement and

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profit as well as the transport and subsistence costs of the Engineer and any personnel required.

The Service Provider shall be entitled to render an interim account on submissions of the draft construction records and draft contract report(s), for up to 50% of the Lump Sum for this stage. The balance of the Lump Sum is claimable upon the submission of, and approval by, the Employer of the final construction records and final contract report(s).

Contract price adjustment shall be applicable in accordance with Clause C2.1.6.

PART C4: SITE INFORMATION

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C.4.1 LOCATION OF THE PROJECT

The project is located at Kwaggafontein B which is within the jurisdiction of the Thembisile Hani Local Municipality in the Mpumalanga Province. It is in close proximity to National Road R573, Section 2 from km 13.0 to km 27.4.

C.4.2 GEOMETRIC INFORMATION**Table 4.2**

Description	Current	Envisaged
Project Limits	The access roads: Total Length = 7km.	No change.
Intersections	Informal	These roads will join with intersections that will be constructed through SANRAL's other contract. The service provider will have to consult with them.
TRH 4 Road Category	Unknown: Informal gravel road	Class 4 or 5
Design Speed	Unknown	40 - 60 km
Level of Service (LOS)	Unknown	C - D
Intersection Capacity	Varies	These roads will join with intersections that will be constructed through SANRAL's other contract. The service provider will have to consult with them.
Cross Section	Varies	Gravel road width = 3m; 60mm blocked pavement surfaced road width = 4m; 80mm blocked pavement surfaced road width = 6m.
Surface Area	Gravel.	Road to be surfaced and some left as gravel.

C.4.3 TRAFFIC INFORMATION

No traffic information is available in SARDS online. Also, no traffic information is available on the SANRAL ITIS system as this road is under the local and provincial authorities. The service provider will have to consult the provincial roads authority to extract historical traffic information.

Temporary traffic accommodation by means of Stop/Go control may be permissible while working on cross roads.

Table 4.3

Description	Current	Envisaged
Current Traffic	Unknown	To be determined

C.4.4 PAVEMENT INFORMATION

No pavement information is available in SARDS online.

Table 4.4

Description	Current	Envisaged
TRH 4 Structural design category	Information not available	To be determined
Past traffic loading	Information not available	To be determined
Future traffic loading	Information not available	To be determined
Structural design period	Information not available	To be determined
Current pavement structure	Information not available	To be determined

C.4.5 GEOTECHNICAL

There are no known geotechnical problem areas identified in the Project Area. Founding conditions for any centre median retaining walls may however have to be assessed.

Table 4.5

Description	Current	Envisaged
Unknown	None	Not envisaged

C.4.6 MATERIAL SOURCES

Table 4.6

Description	Current	Envisaged
Concrete aggregate	None	To be investigated
Gravel materials	Unknown	To be investigated

C.4.7 LAND REQUIREMENTS

To be determined.

C.4.8 ENVIRONMENTAL REQUIREMENTS

Table 4.8

Description	Current	Envisaged
EIA	Activities do not trigger an EIA process	No authorization required.
EMP	Unknown	Material sources may be required.

C.4.9 DRAINAGE

No formal drainage system.

Table 4.9

Description	Current	Envisaged
Side drains	None	New drainage system
Sub-surface drains	None	New drainage system
Pipe culverts	None	New drainage system

C.4.10 ROAD FURNITURE

No road furniture on the current gravel access roads.

Table 4.10

Description	Current	Envisaged
Road Signs	None	Envisaged

C.4.11 STRUCTURES

No structures information are available in SARDS online.

C.4.12 SUB-SERVICE PROVIDERS

The following sub-service will be required on this project:

- a) Survey
- b)
- c) Environmental Assessment Practitioner
- d) External OHS Auditor

C.4.13 PRICING AND PAYMENT

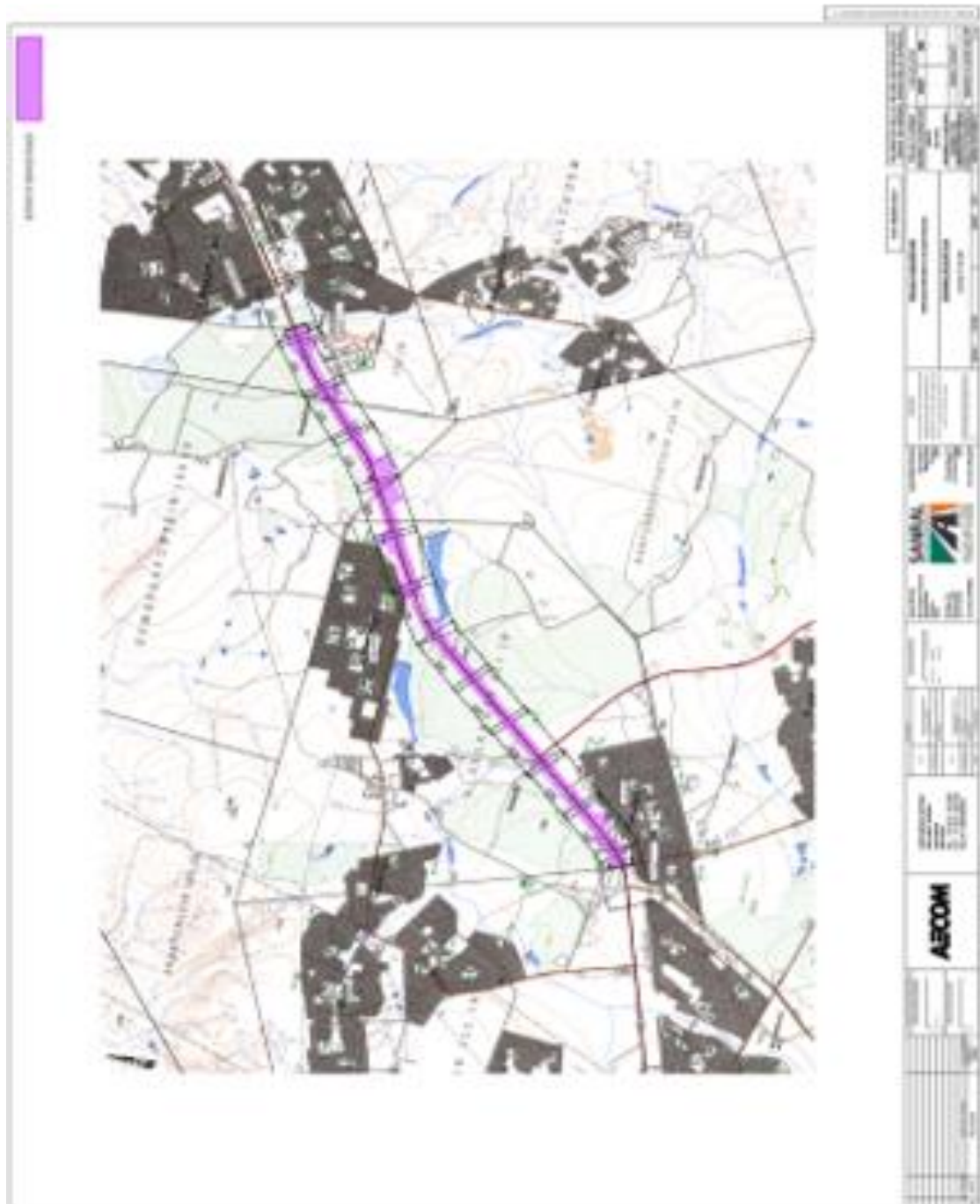
The Service Provider, when pricing the fee he intends to receive for the provision of the services, should take account of the ECSA fee scale guidelines provided in Appendix E. The fee offered should be exclusive of costs to conduct visual condition surveys and produce construction tender documentation.

C.4.14 APPENDICES

Appendix A:	Locality Plan
Appendix D:	Occupational Health and Safety
Appendix E:	ECSA Fee Scale Guidelines
Appendix F:	Pro-forma report formats
Appendix G:	Request for Survey work
Appendix H:	Memorandums of Agreement
Appendix J:	2 nd Tier Procurement Procedures
Appendix K:	Integrated Transport Information System

Appendix A: Locality Plan

FOR CONTRACT SANRAL C.002-025-2018/1S REFER TO CD PROJECT WORK PACKAGE A (KM 24.7 – KM 36.2).



Appendix D: Occupational Health and Safety

- D1 : Health and Safety Specification for Service Providers during Construction**
- D2 : Health and Safety Specification for Contractors during Construction**
- D3 : OHS Audit Questionnaire**

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CONTRACT SANRAL C.002-025-2018/1S

CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND AROUND KWAGGAFONTEIN B NEAR NATIONAL ROAD R573, SECTION 2 FROM KM 24.70 TO KM 36.20

D1: Health and Safety specification for Service Provider during Construction

THE SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS for SERVICE PROVIDER

CONTRACT SANRAL C.002-025-2018/1S

**SCOPE OF WORKS: CONSULTING ENGINEERING SERVICES
FOR THE ADMINISTRATION AND MONITORING OF A
COMMUNITY DEVELOPMENT AND SMALL CONTRACTOR
TRAINING AND DEVELOPMENT ON ACCESS ROADS IN AND
NEAR KWAGGAFONTEIN B**

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SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

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[Service Provider](#)

1. NOTE TO CONSULTING ENGINEERS

- a) The Occupational Health and Safety Act, Act 85 of 1993 and its Regulations together with SANS Codes set out minimum standards with regards to Occupational Health and Safety. The South African National Roads Agency SOC Limited (SANRAL), has developed this Occupational Health and Safety Specifications with these minimum standards in mind and in certain stages the requirements of SANRAL exceeds the minimum legal requirements to follow best practices and to ensure a healthy and safe workplace for all.
- b) SANRAL in no way assumes the Service Providers legal liabilities and responsibilities. The Service Provider is and remains accountable for the quality and execution of his health and safety programme for his employees. This Health and Safety Specification reflects minimum legal and SANRAL requirements and should not be construed as all encompassing.
- c) It is very important for the Service Provider to note that when the Service Provider carry out any type of construction work, as per the definition, the Service Provider will be regarded as a Contractor, as per the definition and must then comply with the requirements of the Construction Regulations and in particular Section 7.
- d) It is realized that the Service Provider may have its own Health and Safety Management system and safe work practices. The intention of this Health and Safety Specification is not to change the Service Providers Health and Safety management system, but for the Service Provider to use its current Health and Safety management system to draw up a project specific Health and Safety plan according to these specifications as well as to legally comply with the Construction Regulations, GNR.84 of 2014.
- e) It is the responsibility of the Service Provider to make themselves conversant and comply with the requirements and conditions contained in the various legislation pertaining to their profession and scope of works at all times.
- f) This document is not exhaustive of all duties imposed by the Occupational Health and Safety Act, Act 85 of 1993 and its Regulations, governing the duties and obligations of a Service Provider / Designer performing duties in terms of an agreement with the client (SANRAL). These duties are fully described in the Occupational Health and Safety Act, Act 85 of 1993 and its Regulations and it is the duty of every Service Provider / Designer to acquaint themselves therewith before commencing work.
- g) Words used herein in the singular shall be deemed to include the plural and male shall include female and vice versa, unless the context otherwise requires.

2. PURPOSE

This document is compiled to ensure that the Professional Service Provider are aware of the Occupational Health and Safety requirements when working on a SANRAL contract, as well as to make them aware of their legal liabilities and responsibilities as per the Occupational Health & Safety Act, Act 85 of 1993, and its Regulations.

3. DEFINITIONS AND ABBREVIATIONS

Assessment – An opinion or a judgment about someone or something that has been thought about very carefully.

At-risk behavior – Conduct that unnecessarily increases the likelihood of an injury or incident.

Audit – A systematic and documented review of the effectiveness of implementation of processes, programmes and procedures, based on general process criteria.

Baseline risk assessment: This is the initial assessment of risk in a workplace. It is a broad assessment and includes all activities taking place on site, but does not include risk control measures or safeguards.

CIDB – Construction Industry Development Board

Client – Any organization or person for whom construction work is performed. For the purpose of this document, the client is the South African National Roads Agency SOC Limited.

Communicate – The process of two way dialogue which is understood by both parties.

Competence – A combination of attributes such as knowledge, training, experience and qualifications to assure successful performance.

Competent Person – Means a person who has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No. 67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act.

Consequence – Outcome or impact of an event.

Continual Improvement – A recurring process of enhancing performance to achieve consistent improvements in overall performance.

Contractor – An employer as defined in section 1 of the OHS Act, who performs construction work

Construction Work – According to the Construction Regulations, any work in connection with:

- The construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or
- The construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work.

Corrective Action – An action taken to eliminate the cause of a detected non-conformity or other undesirable situation.

Construction Regulations (CR) – Construction Regulations, GNR. 84 of 2014

Contractor – An employer who performs construction work.

Critical equipment – A piece of equipment or a structure whose failure to perform to design specification, has the potential to result in a major accident event.

Design – in relation to any structure, includes drawings, calculations, design details and specifications.

Designer –

- a) competent person who:
 - Prepares a design
 - Checks and approves a design
 - Arranges for a person at work under his or her control to prepare a design, including an employee of that person where he or she is the employer; or
 - Designs temporary work, including its components
- b) an architect or engineer contributing to, or having overall responsibility for a design
- c) a building services engineer designing details for fixed plant
- d) a surveyor specifying articles or drawing up specifications;
- e) a contractor carrying out design work as part of a design and building project; or
- f) an interior designer, shop fitter or landscape architect

DMR – Driven Machinery Regulations, GNR. 295 of 26 February 1988

Documents – Structured units of recorded information and its supporting medium (paper or electronic). Most records are documents, but not all documents are records. A document becomes a record when it is part of a business transaction, is kept as evidence of that transaction and is managed within a record-keeping system.

EIR – Electrical Installation Regulations, GNR. 242 of 6 March 2009

Emergency – An abnormal occurrence that pose a threat to the safety or health of employees, customers, or local communities, or which can cause damage to assets or the environment.

Employee – An individual who is employed by or works for an Employer and who receives or is entitled to receive any remuneration or who works under the direction or supervision of an employer or any other person.

Employer – Any person who employs or provides work for any person and remunerates that person or expressly or tacitly undertakes to remunerates him, but excludes a labour broker as defined in section 1(1) of the Labour Relations Act, 1956 (Act No. 28 of 1956). For the purpose of this document, the employer is the South African National Roads Agency SOC Limited.

EMR – Electrical Machinery Regulations, GNR. 250 of 25 March 2011

Environment – The surroundings or conditions in which a person, animal or plant lives or operates, including air, water, land, natural resources and habitats.

Excavation work – The making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping

GAR – General Administrative Regulations, GNR. 929 of 25 June 2003

GMR – General Machinery Regulations, GNR. 1521 of 5 August 1988

GSR – General Safety Regulations, GNR. 1031 of 30 May 1986

Harm – A significant and or long lasting adverse effect on people, the environment or the community.

Hazard – A source, situation or act with a potential for harm in terms of human injury or ill health.

Health and Safety File – Means a file, or other record in permanent form, containing the information in writing as required by the Construction Regulations, GNR. 84 of 7 February 2014, Section 7(1)(b).

Health and Safety Plan – Means a project specific documented plan in accordance with the client's health and safety specifications, as required by the Construction Regulations, GNR. 84 of 7 February 2014, Section 7(1)(a).

Health and Safety Specification – Means a project specific document prepared by the client pertaining to all health and safety requirements related to construction work, as required by the Construction Regulations, GNR. 84 of 7 February 2014, Section 5(1)(b).

HSE – Health, Safety and Environment. Commonly used in the format HSE.

Incident – Work-related events (including accidents which give rise to injury, ill health, fatality or emergencies) that have resulted in, or has the potential to result in adverse consequences to people, the environment, property, reputation or a combination of these.

Likelihood – A description of probability or frequency, in relation to the chance that something will occur.

Lost Time Injury (LTI) – When a person is injured during the execution of his/her duties and as a result of the injury is unable to perform his/her regular duties for one full shift or more on the day following the day on which the injury has incurred, whether a scheduled work day or not(weekend).

Management System – Management processes and documentation that collectively provide a systematic framework for ensuring that tasks are performed safely, correctly, consistently and effectively to achieve a specified outcome and to drive continual improvement in performance.

Mandatory – An agent, contractor or sub-contractor for work, but without derogating from his status in his own right as an employer or a user.

MSDS – Material Safety Data Sheet

Near Hit / Near Miss – Any occurrence or situation which had the potential for adverse consequences to people, the environment, property, reputation or a combination of these.

Non-conformance – Any deviation from work standards, practices, procedures, regulations that could either directly or indirectly lead to injury or illness, property damage, damage to the environment or a combination of these.

OHS Act – Occupational Health & Safety Act, 85 of 1993

Policy – Statement by an organization of its intentions and principles in relation to its overall performance which provides a framework for action and for the setting of its objectives and targets.

PPE – Personal Protective Equipment

Preventive Action – An action implemented to eliminate the cause of a potential non-conformity or other undesirable potential situation.

Principal Contractor – An employer appointed by the client to perform construction work and who is in overall control and management of a part of or the whole construction site.

Procedure – A specific documented way to carry out an activity or a process.

Records – Recorded information, in any form that is kept as evidence. Records include monitoring results, evidence of training, audits, inspections and calibration reports.

Risk Assessment – A process of evaluating the risk(s) arising from hazards taking into account the adequacy of any existing controls and deciding whether or not the risk(s) is acceptable.

Risk Management – The ongoing treatment of risks through the application of management policies, processes, procedures and risk control measures.

Risk – A combination of the likelihood of an occurrence of a hazardous event or exposure and the severity of injury or ill health that can be caused by the event or exposure.

Root Cause – The cause of the incident that, when rectified, will prevent the recurrence of not just incidents with those exact circumstances, but others with similar causes.

SACPCMP – South African Council for Project and Construction Management Professions

SANRAL - South African National Roads Agency SOC Limited

Supplier – A person or company that supplies material or equipment to a contractor on a construction site, but does not physically carry out construction work on the construction site.

The Act – The Occupational Health and Safety Act No. 85 of 1993

The Site – The area where work is carried out for SANRAL as defined on the front page of this document.

WAH – Acronym for Working at Heights

4. HEALTH AND SAFETY POLICY

Service Providers are expected to have their own written Health and Safety Policy. The policy should declare their attitude and approach to the health, safety and welfare of their employees and others. Provision must be made to review the policy regularly and the CEO or Managing Director must sign and date the policy to indicate his commitment to ensuring the health and safety of his employees.

5. ROLES & RESPONSIBILITIES

Every Service Provider is considered to be an employer in his own right and shall comply with all legal requirements pertaining to an employer, which include the responsibility to provide as far as reasonably practicable a safe and healthy working environment for his employees, as per Section 8 of the OHS Act.

In conjunction with Section 8 of the OHS Act, all employees on the project are responsible for their own safety as well as the safety of persons who may be affected by their acts, as per Section 14 of the OHS Act. It is the responsibility of each employee to ensure that he acts in a safe manner before, during and after work is carried out.

The Service Provider shall ensure that where required by the OHS Act and Regulations, competent employees are appointed in writing. These appointments must be project / contract specific and specific to the tasks that will be performed. Every appointment must display the duties of the person appointed and training certificates from a registered training provider must be attached to such appointment (where applicable).

6. HSE TRAINING AND COMPETENCE

Where appropriate qualifications and training are registered in terms of the provisions of the National Qualifications Framework Act, 2000 (Act No. 67 of 2000), those qualifications and training must be regarded as the required qualifications and training and employees must have attended courses of the aforementioned nature to be considered competent in the task.

All employees that forms part of the construction work must be trained and competent. Employees formally appointed to perform a certain duty must be in possession of a training certificate, received from a registered training provider. All Service Provider employees must as a minimum have received site specific safety induction training as well as task specific risk assessment training from the Principal Contractor.

Training Needs – There shall be a system in place to determine the training requirements of each individual, based on the tasks that the employee will perform as well as to ensure the health and safety of fellow employees and the public. Special attention should be given to employees who are new hires, new to the task or have combined responsibilities.

Basic Safe Work Training (Induction Training) – Every Service Provider shall ensure that his employees are inducted into his own company Health and Safety System and must ensure that his employees receive site specific safety induction and task specific risk assessment training from the Principal Contractor. The Service Provider must have evidence that his employees have been trained on the relevant procedures prior to and during the project duration.

Formal Training – All qualifications for which there are SAQA registered training courses, must be regarded as the minimum required qualifications and training. To be deemed “competent” an employee must have received training at a registered training provider, the training course must be registered and if there is an assessment, the employee must have been found competent after the assessment. A person cannot be deemed competent after awareness training only.

The Service Provider shall ensure that his employees, have received appropriate training for the type of work that will be performed, e.g. Working at Heights, Risk Assessment training etc.

Records – Record of all training shall be kept by the Service Provider and shall be readily available. Records shall make provision for refresher training where applicable. Where an employee is legally appointed with certain duties and responsibilities a copy of the training certificate must be attached to the appointment.

7. NOTIFICATION OF CONSTRUCTION WORK

Construction Regulation, 2014 Section 4 requires that the provincial director of the Department of Labour is notified at least 7 days prior to the execution of excavation work, elevated work where there is a risk of falling (working at heights), demolition work or work where explosives are used. Therefore, if the Service Provider needs to e.g. dig test pits, or do a bridge inspection and the risk of falling exists, the Service Provider needs to notify the provincial director in writing on a form similar to Annexure 2 in the Construction Regulations.

8. DUTIES

The Service Provider is the Designer of the structures to be build. As a Designer, the Service Provider need to comply and adhere to the requirements of Section 6 of the Construction Regulations. The Service Provider needs to take health and safety into consideration when designing the structure as well as for future maintenance on the structure.

When the Service Provider carry out any type of construction work, as per the definition, the Service Provider will be regarded as a Contractor, as per the definition, and must then comply with the requirements of the Construction Regulations and in particular Section 7.

The Service Provider is the Clients managing agent, who will manage the construction work on behalf of the client.

9. DESIGNING FOR HEALTH, SAFETY AND THE ENVIRONMENT

Designing for safety is a process aimed at minimizing injury, death, property damage or destruction and harm to the environment, by utilizing an approach to identify and eliminate or control hazardous areas. The Service Provider / Designer must implement a process that ensures safety is incorporated in the design process, which includes temporary works as contemplated in the Construction Regulations, 2014 Section 12.

The Service Provider must communicate the anticipated risks and hazards resulting from the design to the Client and the Client Construction Health and Safety Agent who will ensure that such anticipated risks and hazards reflects in the tender documentation for Contractors.

10. MANAGEMENT AND SUPERVISION

The Service Provider will manage the construction project on behalf of SANRAL and must ensure that the construction work is carried out safely and legal compliance is adhered to at all times. As the managing agent, the Service Provider must appoint a competent person in writing as agent to act as the Clients representative in terms of health and safety on the project.

11. RISK MANAGEMENT

When the Service Provider carry out any type of construction work, Section 9 of the Construction Regulations must be adhered to. A formal risk-based approach must be followed to ensure hazard control measures are implemented to an acceptable reasonable practical level. The Service Provider and his employees shall be responsible to ensure all hazards pertaining to his scope of activity are proactively identified, the risks assessed and appropriately eliminated or minimized and managed on an ongoing basis. Risk assessments shall also identify possible and potential environmental, health and hygiene issues pertaining to each hazard with potential exposures and limits.

a) Hazard Identification and Risk Assessment (Construction Regulation 9)

i. Development of Risk Assessments

The Service Provider shall, before carrying out any type of construction work and during such work, conduct a risk assessment by a competent person, appointed in writing. The baseline risk assessment as provided by the client may be used to draw up a in-depth task specific risk assessment that can be used on site. Please note that the risk assessment must be site specific.

The risk assessment shall include, as far as is reasonably practicable, at least:

- The task and task step
- the identification of the risks and hazards to which persons may be exposed to during the task or task step;
- the analysis and evaluation of the risks and hazards identified, inclusive of a residual risk rating methodology. The method to be used is not prescribed;

- a documented plan of safe work procedures, to mitigate, reduce or control those residual risks that have been identified as unacceptably high, by means of the rating system;
- a monitoring plan;
- a review plan, inclusive of dates to be adhered to; and
- ergonomic related risks are to be analysed, evaluated and addressed as part of the process.

b) Risk Assessment Monitoring

The Service Provider shall ensure that a monitoring plan for all risk assessments are in place. Risk assessments must be monitored to ensure effectiveness and employee understanding. The monitoring of risk assessments shall be formal and records thereof shall be available for audit purposes.

c) Review of Risk Assessment

The Service Provider shall review the hazard identification, risk assessments and standard safe working procedures prior to any construction related work activity and shall ensure that the risk assessment is site specific.

Activities carried out without conducting a risk assessment or found to be non-compliant with the risk assessment, will be stopped until such time a risk assessment is compiled and work is carried out according to the risk assessment.

Risk assessments must be fully communicated to all relevant personnel and must be considered when establishing training, awareness and competency requirements.

11.1 Baseline Risk Assessment

Based on the baseline risk assessment as per 20.1 below, SANRAL has developed this health and safety specification which shall act as a set of OH&S rules that shall be applied to regulate the OH&S aspects of the Service Providers construction work to be carried out. The baseline risk assessment must be used by the Service Provider to develop task specific risk assessments before any construction related work commences.

The Baseline Risk Assessment will not identify risks or control measures, this must be identified by Service Provider when preparing the Issue Based Risk Assessments. The Baseline Risk Assessment will highlight all work for which the Service Provider must prepare safe work procedures and or work method statements.

11.2 Continuous Risk Assessment

The Service Provider shall continuously assess the risks of the activities that are carried out. Risk assessments must be in writing, site specific and must be reviewed continuously to ensure it is current and it address all the relevant hazards and risks associated with the specific activity at the specific site.

The Risk assessment must be discussed with the whole work crew before the activity starts and the work crew must acknowledge in writing having discussed the risk assessment and that they understand it. This acknowledgement must be on site and must be available to the client for audit purposes.

12. LEGAL COMPLIANCE AND DOCUMENT CONTROL

The Service Provider is required to implement systems and procedures to ensure legal compliance through:

- Identification of all relevant HSE legislation, standards and codes applicable to its operations.
- Have available copies of all relevant HSE legislation, standards and codes for reference purposes.
- Update legislation, standards and codes with any changes
- Communicate to all employees any changes that may affect their accountabilities and conformance
- Incorporate any legal requirements into their HSE management system and designs.
- Monitor and review their HSE management system for effectiveness.

The Service Provider shall, as a minimum, comply with:

- The Occupational Health and Safety Act and Regulations (Act 85 of 1993), an up-to-date copy of which shall be available on site at all times.
- The Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993), an up-to-date copy of which shall be available on site at all times.
- Where work is being carried out on a “mine”, the Service Provider shall comply with the Mines Health and Safety Act and Regulations (Act 29 of 1960) and any other OH&S requirements that the mine may specify. An up-to-date copy of the Mines Health and Safety Act and Regulations shall be available on site at all times.

Wherever in the Construction Regulations or this specification there is reference to other regulations (e.g. Construction Regulation 24: Electrical Installations and Machinery on Construction Sites) the Service Provider shall be conversant with and shall comply with these regulations.

12.1 Legal Appointments

All legal appointments of the Service Provider regarding the Health and Safety of his employees who are to carry out construction work on the project are addressed and governed by the OHS Act and applicable Regulations.

i. Overall Supervision and Responsibility for OH&S

The client will appoint the Service Provider who shall be the managing agent of the client on the project once construction works start. A Mandatory agreement as per Section 37.2 of the OHS Act, shall be signed between the client and the Service Provider.

It is a requirement that the Service Provider, when he appoints sub Service Providers, includes a Mandatory agreement in his agreement with such sub Service Providers

ii. Specific Supervision Responsibilities for OH&S

The Service Provider shall appoint designated competent employees and/or other competent persons as required by the OHS Act and Regulations, as well as this specification. Appointments shall be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information shall be communicated to and agreed with the appointees. Where applicable, the training certificate must be attached to the appointment. Notice of appointments shall be submitted to the Employer. All changes shall also be communicated to the Employer.

Below is a list of possible appointments for the project, which is not an all-inclusive list, but for reference purposes only:

Appointment	Legal Reference
Assistant to CEO	OHS Act 16(2)
Construction Health & Safety Agent	CR 5(5)(6)
Risk Assessor	CR 9(1)
Fall Protection Plan Developer	CR 10(1)(a)
Structure Inspector	CR 11(2)(a)
Temporary Works Designer	CR 12(1)
Excavation Supervisor	CR 13(1)(a)
Incident investigator	GAR 9(2)
Ladder inspector	GSR 13(a)
First Aider GSR	GSR 3(4)

13. OPERATIONAL INTEGRITY

The operational integrity of plant, equipment, structures and protective systems must be monitored and assured on an ongoing basis throughout the project cycle. Hazards must be identified, assessed and as

far as reasonably practicable, eliminated or the risks treated to as low as reasonably practicable (ALARP).

13.1 Plant & Equipment Integrity

13.1.1 Construction Plant & Equipment

The Service Provider shall maintain all his items of plant and equipment necessary to perform the required construction work in a safe condition.

The client reserves the right to inspect items of plant and equipment brought to site and used on site by the Service Provider. Should it be found that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the Service Provider will be advised of such observation / inspection, and the Service Provider shall be required to repair, make safe or remove such item from operation and replace it with a safe and adequate substitute.

The Service Provider shall ensure that all plant, equipment, and power tools that he brings onto and use on site for construction work purposes are:

- Appropriate for the type of work to be performed
- Placed on a register and inspected by a competent person or the authorized operator before use, daily or monthly dependent on Legislation and project requirements.
- Record inspection findings on a register that must be kept on site.
- The inspection register shall reflect the serial number of the plant, equipment or power tool.
- Maintained and used in accordance with the manufacturers recommendations
- Have adequate machine guarding fitted to all exposed rotating or moving parts, as reasonably practicable, that have the potential to cause harm
- All electrical power supply units are protected with operational earth leakage devices.
- Any defective, damaged or sub-standard equipment must be marked as unsafe for use and removed from operation as soon as possible

13.1.2 Standards and Registers

For construction work purposes, the Service Provider is expected to:

- Set up an initial set of registers as per the requirements of the OHS Act and Regulations.
- Complete the registers for each piece of plant, tool and equipment brought on and used on site by the Service Provider or his employees.
- Maintain a complete, continuous and comprehensive inspection and service history in these registers or checklists
- Ensure daily, weekly, monthly inspections are done and recorded for all plant, tools & equipment by a competent person as required by the OHS Act and Regulations.

14. OCCUPATION HEALTH AND HYGIENE

14.1 Medical Fitness for Duty

All Service Provider employees that carry out construction work activities, shall undergo medical examinations and be certified fit for duty by an Occupational Health Practitioner before they are allowed to work on site.

The medical certificate must be in the form of Annexure 3 of the Construction Regulations and stipulate the possible exposures the employee might be exposed to during the execution of the construction work.

It is recommended and in the best interest of the Service Provider to implement pre-employment as well as exit medical surveillance, especially with regards to Section 8 of the Noise Induced Hearing Loss Regulation.

14.2 First Aid

According to GSR 3(4), where more than 10 employees are employed at a workplace/worksites, the Service Provider shall ensure that there is at least one trained first aider for every group of 50 employees

at the workplace/site. First Aid boxes must be provided where more than 5 employees are employed and must be readily available and accessible for the treatment of injured persons at the workplace.

To ensure immediate treatment of an injured person, it is recommended that all work crews have at least one trained first aider, with a fully stocked first aid box, irrespective of the number of people in the work crew. This is especially important when Service Providers work at great distances from the nearest emergency facility or town. These persons shall be appointed in writing as the first aiders with their certificates attached as proof of competency.

The minimum contents of the first aid box shall be as per the supplied list in the General Safety Regulations.

All treatments done must be recorded on a register and kept with the first aid box. A trained and appointed first aider must be responsible for the first aid box and its content. Used content must be replenished as soon as possible.

In order to ensure prompt response at the emergency facility it is recommended that the W.Cl 2 forms be partially completed with the employers' details, for medical treatment cases.

14.3 Workers Compensation Registration

The Service Provider shall ensure that his employees are covered for any occupational injuries and illnesses in terms of the Occupational Injuries and Diseases Act 130 of 1993, which cover shall remain in place and up to date for the duration of the project.

14.4 Hygiene Facilities

The Service Provider shall ensure compliance to Section 30 of the Construction Regulations with regards to facilities on the construction site as well as where accommodation is provided to employees on remote sites. The Service Provider shall ensure that the facilities are kept clean at all times, either through a Service Provider or self-employed persons.

15. WASTE MANAGEMENT

The Service Provider shall comply with all applicable and relevant Waste management legislation, as well as municipal bylaws applicable to waste management.

It is recommended that the Service Provider have a waste management plan which must be implemented on the construction site and which will have the objective to ensure that waste is managed according to the Waste Management Hierarchy:

- Reduce what you can. If you cannot reduce then,
- Re-use what you can. If you cannot re-use then,
- Recycle what you can. What you cannot recycle,
- Convert into energy sources. If it cannot be converted to an energy source,
- Dispose of in a landfill – this is only to be done as a last resort and disposed without endangering human health and without using processes or methods which could harm the environment.

16. HAZARDOUS SUBSTANCE MANAGEMENT

The Service Provider shall ensure that hazardous substances brought onto site are easily identifiable and stored according to the requirements of the General Safety Regulations, GNR. 1031 of 1986, Section 4.

Where flammable liquids are being used or stored, this must be done in a manner which would not cause a fire or explosion hazard.

The Service Provider shall have Material Safety Data Sheets (MSDS) readily available for flammable, hazardous and toxic chemical substances and materials brought onto site and shall ensure that his employees are trained in these MSDS's.

Flammable, hazardous or toxic chemical substances may not be stored in empty food or drink containers. Empty flammable, hazardous and toxic containers must be disposed of in a safe manner, which will prevent further use of such a container.

Asbestos

A survey of the construction site must be done during site establishment, to locate any asbestos. Should asbestos be located, the conditions of the Asbestos Regulations, GNR. 155 of 2002 must be followed and complied with.

17. OPERATIONAL PROCEDURES

Each construction activity shall be assessed by the Service Provider so as to identify operational procedures that will mitigate against the occurrence of an incident during the execution of each activity. This specification requires the Service Provider:

- to be conversant with all relevant Regulations;
- to comply with their provisions;
- to include them in his OH&S plan where relevant

18. HSE NON-COMPLIANCE

The Client has a legal duty in terms of Construction Regulation 5(1)(q) to stop any unsafe work on the construction site. Any unsafe construction related activity that the Service Provider performs will be stopped until such time as the Service Provider has rectified the non-compliance or unsafe act/condition.

The Service Provider as managing agent for the Client has a legal duty according to the Construction Regulation 5(1)(q) to stop a contractor from executing any activity which poses a threat to the health and safety of persons. Depending on the seriousness of the non-compliance only the specific activity may be stopped until the non-compliance is rectified or the whole operation may be stopped.

It is also the duty of every employee to take reasonable care of his own health and safety and of other persons who may be affected by his acts as per OHS Act, Section 14(a). Keeping this in mind, it is required of the Service Provider to ensure his employees has the right to remove themselves from any unsafe situation or work activity, without any negative consequence to them until such time as the Service Provider has made the unsafe situation or activity as safe as practicable possible.

18.1 Contracting Philosophy

Any site-specific hazards and safety management expectations will be made known to the Service Provider prior to the work commencing on site. Legal OHS requirements contained in the OHS Act and Regulations as well as SANS Codes are the minimum requirements the Service Provider must apply during this contract with regards to Occupational Health and Safety. The Service Provider shall apply, implement and enforce the minimum OHS Act & Regulations and SANS Codes requirements.

18.2 Indemnity by Service Provider

The Service Provider shall indemnify the Employer against and from all damages, losses and expenses (including legal fees and expenses) resulting from:

- (a) the loss of output and delay caused by the slowing down or partial or total stoppage of work caused by:
 - i. Unsafe acts caused by all or any of the Service Providers employees;
 - ii. Unsafe conditions which resulted from the failure to carry out any legal obligation by all or any of the Service Providers employees;
- (b) any unlawful, riotous or disorderly conduct by or amongst the Service Providers employees.

18.3 Service Provider Conduct

Guidelines to the most important rules that shall be implemented and maintained by the Service Provider:

- Complete compliance to the OH&S Act and Regulations
- Hazard identification and Risk Assessments for all construction related activities
- DSTI talk before construction work commences
- Safe access and egress to and from work areas.
- Compulsory use of lifelines, Safety Harnesses and Fall Arrestors (Lanyards to be attached at all times) when working in elevated positions
- Good housekeeping
- Securing of tools, equipment and material at heights
- Wearing of appropriate personal protective equipment as identified in the risk assessment

Personal Conduct

No person shall act in a manner that endangers or is likely to endanger, the safety of any other person, or cause harm to any other person.

An employee who observes any dangerous situation, shall as soon as possible inform the person who is responsible for that section of the site.

Any employee who becomes aware of any person disregarding any safety rules, shall remind that person of the rules. If he persists in disregarding the rules, the matter must be reported to his supervisor.

No person shall damage, alter, remove, render ineffective or interfere with anything that has been provided for the protection of the site, or for the health and safety of persons.

No person shall interfere with or use firefighting equipment without authority and training.

No person in a state of intoxication or condition that render him incapable of controlling himself shall enter or be allowed to enter the site.

No alcohol or illegal drugs shall be taken onto the site.

All safety and warning signs shall be obeyed.

Always be alert of construction vehicles as well as traffic. Never turn your back to oncoming traffic or construction vehicles / mobile plant, always have a line of sight.

18.4 Sub Service Providers

The Service Provider shall establish, maintain and ensure that all his Sub Service Providers establish and maintain HSE standards and systems as necessary and to comply with the Legal requirements as well as these HSE specifications.

18.5 Public Health and Safety

The Service Provider shall, as far as is reasonably practicable, be responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimise those dangers. During the construction phase of the project, this can be done through the Principal Contractors HSE Officer.

This includes:

- Non- employees entering the site for whatever reason
- The surrounding community
- Passers-by to the site

19. INCIDENT MANAGEMENT

The Service Provider shall ensure that a culture exists within his company that promotes the recognition, response, reporting and investigation of incidents, including near misses (near hits). The Service

Provider must implement a procedure for reporting and investigating accidents, incidents and near misses as prescribed in the General Administrative Regulation, Section 8. The Service Provider should have a clear objective and target to obtain zero injuries for the duration of the project and such an objective must be communicated to all employees.

Appropriate corrective actions must be implemented and the applicable learnings must be shared within the Service Providers business to prevent a recurrence of the incident or to prevent the minor incidents from becoming serious incidents in future.

19.1 Incidents and Accidents

The Service Provider shall investigate all accidents/incidents where employees were injured to the extent that he had to be referred for medical treatment by a doctor, hospital or clinic. The results of the investigation shall be entered into an accident/incident register, which must be updated with each accident/incident.

The Service Provider shall notify the relevant SANRAL Project Manager and or SANRAL OHS Specialist of any incident / accident within the Service Providers area of responsibility in writing as soon as possible.

Although the accident / incident is reported to the client, the Service Provider has a responsibility and is required by law to report any Section 24 accidents and incidents to the Department of Labour. Any road traffic accident must be reported to the relevant authorities.

It is essential that the Service Provider demonstrate that corrective and preventative action has been taken to prevent a similar incident in future and that it is communicated to all affected employees. A copy of the investigation, corrective and preventative action taken as well as the attendance register of the employees who attended the discussion of the incident and the action implemented to prevent a similar incident, must be forwarded to the SANRAL Project Manager and or the SANRAL OHS Specialist.

In addition to medical treatment cases it is recommended that Near Miss incidents and First Aid cases are also investigated to establish root causes and implement preventative measures.

20. PROJECT SPECIFIC CONSTRUCTION REQUIREMENTS

20.1 Baseline Risk Assessment

The following is a list of risks identified which forms the Baseline Risk Assessment for the project prepared by the Client in terms of Construction Regulation 5(1)(a):

Risks in connection with:

- a) Working in elevated positions (e.g. Bridge Inspections)
- b) Working over water environments (e.g. Bridge Inspections)
- c) Excavation – locating existing underground services, digging test pits
- d) Manual handling – setting up surveying equipment
- e) Ergonomic risks
- f) High & Low voltage power lines – overhead & underground
- g) Work in close proximity to railway lines
- h) Uneven ground surfaces
- i) Personal safety & security risks
- j) Traffic Control (Ensure Correct Signage at Correct Distances)
- k) Working from ladders
- l) Exposure to noise
- m) Working in close proximity to traffic
- n) Working with hot materials
- o) Radio Active equipment
- p) Hazardous Chemical Substances
- q) Flammable Materials
- r) Driving to and from site
- s) Biological risks e.g. bees, snakes, spiders, etc.
- t) Environmental risks
- u) Bad weather conditions,

- a. rain,
- b. lightning,
- c. wind,
- v) poor visibility
- w) heat exposure – dehydration
- c) cold environments

During the construction phase of the project, the employees of the Service Provider must be inducted and trained on the risk assessments and Safe Operating Procedures of the Principal Contractor before entering the site and record of such induction / training must be kept on file, e.g.

- i) Work in close proximity of Mobile Plant (e.g. Bomag Roller, Pneumatic roller, etc)
- ii) Falling Objects
- iii) Suspended Loads
- iv) Crane Operations
- v) Asphaltting

20.2 Site Attendance Register

All site visitors shall report to security / reception upon arrival at site. All visitors need to sign an attendance register when visiting the site. Visitors include all persons which are not permanently working on the site, but excludes temporary site workers. Visitors must undergo site induction training before they are allowed on site to make them aware of the site dangers. During the construction stage of the project, the HSE Officer of the Principal Contractor should conduct the site induction with visitors before they are allowed on the construction site.

20.3 Personal Protective Equipment

Comply with General Safety Regulations, Section 2

The Service Provider shall identify the hazards in the workplace and remove them or, where impracticable, take steps to protect employees and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment (PPE) should, however, be the last resort. The hierarchy of hazard elimination must be followed before the option of personal protective equipment is considered. The following hierarchy of controls must be followed:

- Elimination
- Passive Controls
 - o Substitution – Using a cherry picker or man-lift instead of a ladder.
 - o Engineering Controls – Installing barrier railings; Installing stairs instead of using vertical ladders.
- Active Controls
 - o Administrative policies and procedures
 - o Personal protective equipment

Where it is not possible to create an absolutely safe and healthy workplace the Service Provider shall inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

It is a further requirement that the Service Provider maintain the said equipment, that he instructs and trains the employees in the use of the equipment and ensures that the prescribed equipment is used by the employee/s.

Employees do not have the right to refuse the use/wear of the equipment prescribed by the Employer and, if it is impossible for an employee to use or wear prescribed protective equipment through health or any other reason, the employee cannot be allowed to continue working under the hazardous condition/s for which the equipment was prescribed but an alternative solution has to be found that may include relocating the employee.

The Service Provider shall ensure that all his personnel, excluding those who are permanently office bound, are equipped with reflective safety jackets and that these are worn at all times when working on

site. Any person found not wearing a reflective jacket on site must be removed from the site until such time as he is in possession of and wearing a reflective jacket. Reflective safety jackets shall be kept in good condition and any jackets that are ineffective must immediately be replaced by the Service Provider.

20.4 Site Security

Certain areas where work must be carried out, is recognized unsafe areas and certain other areas may from time to time become unsafe, due to 3rd party actions. The Service Provider must as far as reasonably possible anticipate unsafe areas and must ensure that his site staff is safe from 3rd party actions, which include but is not limited to:

- Unrests,
- Violent Demonstrations,
- Theft,
- Injury from 3rd parties at all times.

The Service Provider must, when work is to be carried out in the above-mentioned areas, make provision for security services to accompany site staff during the execution of their work, as the Service Provider is responsible for the Health, Safety and Security of his own staff. The provision for security services must form part of the Service Providers tender.

20.5 Working in Elevated Positions

Comply with Construction Regulation, Section 10

The Service Provider shall ensure that a fall protection plan, developed by a competent person who is designated as the Fall Protection Plan Developer, is available on site and understood by all employees who will be working in elevated positions.

All employees working in elevated positions shall protect themselves from falls by wearing a full body harness and the lanyard shall be attached as far as possible above the head of the employee to a life line or other approved and tested anchor point.

In addition to obvious elevated work activities, work activities which include:

- Working on the edge of an excavation where there is a risk of falling into the excavation;
- Work on the edge of a vertical drop where there is a risk of falling;
- Work on top of trucks and tanks;

Shall be considered work in elevated positions and Section 10 of the Construction Regulations must be adhered to at all times. The hierarchy of controls must be implemented when such activities are carried out. As a minimum the employee must wear PPE, which shall include a full body harness attached to a restraint.

Only suitable ladders that have been inspected and has been certified "safe for use" may be used for elevated work. The top two rungs on the ladder may not be used for elevation, as this will render the ladder unstable. A second person should hold the ladder stable whenever working from it.

20.6 Excavations

Comply with Construction Regulations, Section 13

The Service Provider shall ensure that all excavations are carried out under the supervision of a competent person who has been appointed in writing as Excavation Supervisor.

The Service Provider must evaluate the stability of the ground before excavation work begins as well as during excavation work.

Excavations must be barricaded to prevent unauthorized access.

Material removed from excavations, as well as heavy machinery and construction vehicles, must not be closer than 1 meter of the edge of the excavation, to prevent additional loads on the excavation edge, which could cause cave-ins, to prevent construction vehicles from falling into the excavation and to prevent the accumulation of carbon monoxide gas inside the excavation.

People working in the excavation must be adequately protected from cave-ins, by means of protection systems such as shoring and bracing and must have a safe means of access into the excavation and egress from the excavation.

20.7 Construction Vehicles

Comply with Construction Regulation, Section 23, National Road Traffic Act, 1996

Construction vehicle operators must have received training to operate the class of construction vehicle or mobile plant and must be in possession of an operator's card as proof of competency. Construction vehicle operators must be authorised in writing and have a medical certificate of fitness issued by an occupational health practitioner to operate the construction vehicle and/or mobile plant.

20.8 Electrical Equipment

Comply with Construction Regulations, Section 24

The Service Provider shall take adequate steps to ascertain the presence of and guard against danger to workers from electrical cables or apparatus which is under, over or on the site.

The exact location of underground electric power cables must be determined before any excavators are used for excavation purposes.

The location of overhead electrical cables must be assessed when working with equipment that has booms that can extend. Injury may be possible from touching the electrical cables with the equipment boom, or from arching when the equipment boom comes too close to the electrical cable.

Electrical machinery and extension cords must be in a serviceable condition and must be inspected before use on the construction site by the authorised operator and the inspection checklist must be kept on the construction site.

20.9 Temporary Storage of Flammable Liquids

Comply with Construction Regulation, Section 25 and General Safety Regulations, Section 4

The Service Provider must ensure storage areas of flammable liquids are well ventilated and "No Smoking" signs are placed at the entrances and ventilation ducts of the storage areas. Firefighting equipment must be available in suitable positions around the storage areas.

The Service Provider must ensure that good housekeeping is practiced in and around the flammable storage areas.

20.10 Water Environments

Comply with Construction Regulation, Section 26

The Service Provider must ensure that a lifejacket forms part of the employees PPE and is worn when the employee is exposed to the risk of drowning, by falling into water.

The risk assessment must make provision for the rescuing of persons in danger of drowning and for preventing employees from falling into the water.

When working over water environments, Section 10 of the Construction Regulations – Fall Protection will also apply.

20.11 Manual Handling / Ergonomic Risks

The Service Provider must ensure that the health of his employees are not affected through the handling of heavy equipment and safe lifting techniques are applied by his employees. Manual handling and ergonomic risks must be included in the risk assessments of the Service Provider and employees must be aware of it and trained in it.

20.12 Traffic Control

When the Service Provider carries out construction related activities on site, during the design stage of the project, sufficient and adequate traffic control must be implemented. Traffic control signage must be displayed and employees must be aware of approaching traffic, facing oncoming traffic at all times.

20.13 Radioactive Equipment

The Service Provider, when working with radioactive equipment, must ensure that all appropriate safety measure are implemented, employees are made aware of the dangers of the equipment and the equipment is used according to the manufacturer's instructions.

20.14 Intoxicating Liquor and Drugs

Comply with General Safety Regulations, Section 2A

The site limit for intoxication is set to zero to complement a vision of zero tolerance

Any person found to be intoxicated, or consuming intoxicating liquor or illegal drugs, must not be allowed onto the premises and/or must be removed from the premises.

The Service Provider has the right to test any person entering the premises for intoxicating liquor or illegal drugs and may refuse entrance on the basis of the outcome of the test.

The Service Provider shall ensure that employees taking prescription medicine informs the Service Provider of such and shall ensure that the side effect of such medicine does not constitute a hazard to the employee himself or people working in close proximity to the employee.

THE SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LIMITED

OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS

CONTRACT SANRAL C.002-025-2018/1S

SCOPE OF WORKS: CONSULTING ENGINEERING SERVICES FOR THE ADMINISTRATION AND MONITORING OF A COMMUNITY DEVELOPMENT AND SMALL CONTRACTOR TRAINING AND DEVELOPMENT ON ACCESS ROADS IN AND NEAR KWAGGAFONTEIN B

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1. NOTE TO PRINCIPAL CONTRACTORS AND CONTRACTORS

The Occupational Health and Safety Act, Act 85 of 1993 and its Regulations together with SANS Codes set out minimum standards with regards to Occupational Health and Safety. The South African National Roads Agency SOC Limited (SANRAL), has developed this Occupational Health and Safety Specifications with these minimum standards in mind and in certain stages the requirements of SANRAL exceeds the minimum legal requirements to follow best practices and to ensure a healthy and safe workplace for all.

SANRAL in no way assumes the Contractors legal liabilities and responsibilities. The Contractor is and remains accountable for the quality and execution of his health and safety programme for his employees. This Health and Safety Specification reflects minimum legal and SANRAL requirements and should not be construed as all encompassing.

It is realized that the Contractor have its own Health and Safety Management system and safe work practices. The intention of this Health and Safety Specification is not to change the Contractors Health and Safety management system, but for the Contractor to use its current Health and Safety management system to draw up a project specific Health and Safety plan according to these specifications as well as to legally comply with the Construction Regulations, GNR.84 of 2014.

It is the responsibility of the Principal Contractor and other Contractors to make themselves conversant and comply with the requirements and conditions contained in the various legislation pertaining to their profession and scope of works at all times.

This document is not exhaustive of all duties imposed by the Occupational Health and Safety Act, Act 85 of 1993 and its Regulations, governing the duties and obligations, of a Designer, Principal Contractor and Contractor performing duties in terms of an agreement with the client (SANRAL). These duties are fully described in the Occupational Health and Safety Act, Act 85 of 1993 and its Regulations and it is the duty of every Designer, Principal Contractor and Contractor to acquaint themselves therewith before commencing work.

Words used herein in the singular shall be deemed to include the plural and male shall include female and vice versa, unless the context otherwise requires.

2. PURPOSE

This document is compiled to ensure that the Principal Contractor and any other Contractors working for SANRAL directly or through a Principal Contractor, are aware of the Occupational Health and Safety requirements when working on a SANRAL contract, as well as to make them aware of their legal liabilities and responsibilities as per the Occupational Health & Safety Act, Act 85 of 1993, and its Regulations.

3. DEFINITIONS AND ABBREVIATIONS

Assessment – An opinion or a judgment about someone or something that has been thought about very carefully.

At-risk behavior – Conduct that unnecessarily increases the likelihood of an injury or incident.

Audit – A systematic and documented review of the effectiveness of implementation of processes, programmes and procedures, based on general process criteria.

Baseline risk assessment: This is the initial assessment of risk in a workplace. It is a broad assessment and includes all activities taking place on site, but does not include risk control measures or safeguards.

CIDB – Construction Industry Development Board

Client – Any organization or person for whom construction work is performed. For the purpose of this document, the client is the South African National Roads Agency SOC Limited.

Communicate – The process of two way dialogue which is understood by both parties.

Competence – A combination of attributes such as knowledge, training, experience and qualifications to assure successful performance.

Competent Person – Means a person who has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No. 67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act.

Consequence – Outcome or impact of an event.

Continual Improvement – A recurring process of enhancing performance to achieve consistent improvements in overall performance.

Contractor – An employer as defined in section 1 of the OHS Act, who performs construction work and includes Principal Contractors and Sub-Contractors.

Construction Work – any work in connection with:

- The construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or
- The construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work.

Corrective Action – An action taken to eliminate the cause of a detected non-conformity or other undesirable situation.

Construction Regulations (CR) – Construction Regulations, GNR. 84 of 2014

Critical equipment – A piece of equipment or a structure whose failure to perform to design specification, has the potential to result in a major accident event.

Design – in relation to any structure, includes drawings, calculations, design details and specifications.

Designer –

a) competent person who:

- Prepares a design
- Checks and approves a design
- Arranges for a person at work under his or her control to prepare a design, including an employee of that person where he or she is the employer; or
- Designs temporary work, including its components

b) an architect or engineer contributing to, or having overall responsibility for a design

c) a building services engineer designing details for fixed plant

d) a surveyor specifying articles or drawing up specifications;

e) a contractor carrying out design work as part of a design and building project; or

f) an interior designer, shop fitter or landscape architect

DMR – Driven Machinery Regulations, GNR. 295 of 26 February 1988

Documents – Structured units of recorded information and its supporting medium (paper or electronic). Most records are documents, but not all documents are records. A document becomes a record when it is part of a business transaction, is kept as evidence of that transaction and is managed within a record-keeping system.

EIR – Electrical Installation Regulations, GNR. 242 of 6 March 2009

Emergency – An abnormal occurrence that pose a threat to the safety or health of employees, customers, or local communities, or which can cause damage to assets or the environment.

Employee – An individual who is employed by or works for an Employer and who receives or is entitled to receive any remuneration or who works under the direction or supervision of an employer or any other person.

Employer – Any person who employs or provides work for any person and remunerates that person or expressly or tacitly undertakes to remunerates him, but excludes a labour broker as defined in section 1(1) of the Labour Relations Act, 1956 (Act No. 28 of 1956). For the purpose of this document, the employer is the South African National Roads Agency SOC Limited.

EMR – Electrical Machinery Regulations, GNR. 250 of 25 March 2011

Environment – The surroundings or conditions in which a person, animal or plant lives or operates, including air, water, land, natural resources and habitats.

Excavation work – The making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping

GAR – General Administrative Regulations, GNR. 929 of 25 June 2003

GMR – General Machinery Regulations, GNR. 1521 of 5 August 1988

GSR – General Safety Regulations, GNR. 1031 of 30 May 1986

Harm – A significant and or long lasting adverse effect on people, the environment or the community.

Hazard – A source, situation or act with a potential for harm in terms of human injury or ill health.

Health and Safety File – Means a file, or other record in permanent form, containing the information in writing as required by the Construction Regulations, GNR. 84 of 7 February 2014, Section 7(1)(b).

Health and Safety Plan – Means a project specific documented plan in accordance with the client's health and safety specifications, as required by the Construction Regulations, GNR. 84 of 7 February 2014, Section 7(1)(a).

Health and Safety Specification – Means a project specific document prepared by the client pertaining to all health and safety requirements related to construction work, as required by the Construction Regulations, GNR. 84 of 7 February 2014, Section 5(1)(b).

HSE – Health, Safety and Environment. Commonly used in the format HSE.

Incident – Work-related events (including accidents which give rise to injury, ill health, fatality or emergencies) that have resulted in, or has the potential to result in adverse consequences to people, the environment, property, reputation or a combination of these.

Likelihood – A description of probability or frequency, in relation to the chance that something will occur.

Lost Time Injury (LTI) – When a person is injured during the execution of his/her duties and as a result of the injury is unable to perform his/her regular duties for one full shift or more on the day following the day on which the injury has incurred, whether a scheduled work day or not(weekend).

Management System – Management processes and documentation that collectively provide a systematic framework for ensuring that tasks are performed safely, correctly, consistently and effectively to achieve a specified outcome and to drive continual improvement in performance.

Mandatory – An agent, contractor or sub-contractor for work, but without derogating from his status in his own right as an employer or a user.

MSDS – Material Safety Data Sheet

Near Hit / Near Miss – Any occurrence or situation which had the potential for adverse consequences to people, the environment, property, reputation or a combination of these.

Non-conformance – Any deviation from work standards, practices, procedures, regulations that could either directly or indirectly lead to injury or illness, property damage, damage to the environment or a combination of these.

OHS Act – Occupational Health & Safety Act, 85 of 1993

Policy – Statement by an organization of its intentions and principles in relation to its overall performance which provides a framework for action and for the setting of its objectives and targets.

PPE – Personal Protective Equipment

Preventive Action – An action implemented to eliminate the cause of a potential non-conformity or other undesirable potential situation.

Principal Contractor – An employer appointed by the client to perform construction work and who is in overall control and management of a part of or the whole construction site.

Procedure – A specific documented way to carry out an activity or a process.

Records – Recorded information, in any form that is kept as evidence. Records include monitoring results, evidence of training, audits, inspections and calibration reports.

Risk Assessment – A process of evaluating the risk(s) arising from hazards taking into account the adequacy of any existing controls and deciding whether or not the risk(s) is acceptable.

Risk Management – The ongoing treatment of risks through the application of management policies, processes, procedures and risk control measures.

Risk – A combination of the likelihood of an occurrence of a hazardous event or exposure and the severity of injury or ill health that can be caused by the event or exposure.

Root Cause – The cause of the incident that, when rectified, will prevent the recurrence of not just incidents with those exact circumstances, but others with similar causes.

SACPCMP – South African Council for Project and Construction Management Professions

SANRAL - South African National Roads Agency SOC Limited

Supplier – A person or company that supplies material or equipment to a contractor on a construction site, but does not physically carry out construction work on the construction site.

The Act – The Occupational Health and Safety Act No. 85 of 1993

The Site – The area where work is carried out for SANRAL as defined on the front page of this document.

WAH – Acronym for Working at Heights

4. HEALTH AND SAFETY POLICY

Contractors are expected to have their own written Health and Safety Policy. The policy should declare their attitude and approach to the health, safety and welfare of their employees and others. Provision must be made to review the policy regularly and the CEO or Managing Director must sign and date the policy to indicate his commitment to ensuring the health and safety of his employees.

5. ROLES & RESPONSIBILITIES

Every Contractor is considered to be an employer in his own right and shall comply with all legal requirements pertaining to an employer, which include the responsibility to provide as far as reasonably practicable a safe and healthy working environment for his employees, as per Section 8 of the OHS Act.

In conjunction with Section 8 of the OHS Act, all employees on the project are responsible for their own safety as well as the safety of persons who may be affected by their acts, as per Section 14 of the OHS Act. It is the responsibility of each employee to ensure that he acts in a safe manner before, during and after work is carried out.

The contractor shall ensure that where required by the OHS Act and Regulations, competent employees are appointed in writing. These appointments must be project / contract specific and specific to the tasks that will be performed. Every appointment must display the duties of the person appointed and training certificates from a registered training provider must be attached to such appointment (where applicable). A list of possible appointments can be found in section 11.1 below.

6. HSE TRAINING AND COMPETENCE

Where appropriate qualifications and training are registered in terms of the provisions of the National Qualifications Framework Act, 2000 (Act No. 67 of 2000), those qualifications and training must be regarded as the required qualifications and training and employees must have attended courses of the aforementioned nature to be considered competent in the task.

All employees that forms part of the construction work must be trained and competent. Employees formally appointed to perform a certain duty must be in possession of a training certificate, received from a registered training provider. All employees must as a minimum have received site specific safety induction training and must receive daily safe task instruction training (DSTI) before any work commences.

Training Needs – There shall be a system in place to determine the training requirements of each individual, based on the tasks that the employee will perform as well as to ensure the health and safety of fellow employees and the public. Special attention should be given to employees who are new hires, new to the task or have combined responsibilities.

Basic Safe Work Training (Induction Training) – Every contractor shall ensure that his employees are inducted into his own company Health and Safety System as well as basic safe work training (HSE Induction Training). The Principal Contractor shall ensure that his, all his Sub-Contractor employees and visitors are inducted on the specific site safety procedures.

A Daily Safe Task Instruction (DSTI) must be conducted on site with all employees involved in the project. The DSTI must be carried out each day before work commences and proof thereof must be available on site. Each work crew may conduct their own specific DSTI to discuss the hazards, risks and control measures associated with their task for the day.

Where two or more contractors or work crews work in the same area, they should have a combined DSTI to ensure they know of the additional hazards the other contractor or work crew will introduce to their operations and what precautions to put in place.

The contractor shall have evidence that employees have been trained on the relevant procedures prior to and during the project duration.

Formal Training – All qualifications for which there are SAQA registered training courses, must be regarded as the minimum required qualifications and training. To be deemed “competent” an employee must have received training at a registered training provider, the training course must be registered and if there is an assessment, the employee must have been found competent after the assessment. A person cannot be deemed competent after awareness training only.

The Contractor shall ensure that his employees, as well as the employees of any sub-contractors that may be used, have received appropriate training for the type of work that will be performed, e.g. First Aid, Flag Man, Mobile Plant Operator, Working at Heights, Risk Assessment training etc.

Records – Record of all training shall be kept by the employer and shall be readily available. Records shall make provision for refresher training where applicable. Where an employee is legally appointed with certain duties and responsibilities a copy of the training certificate must be attached to the appointment.

7. APPLICATION FOR CONSTRUCTION WORK PERMIT

Construction Regulation, 2014 Section 3 requires that the client apply for a construction work permit at least 30 days before construction work is started, if the intended construction work is of a value exceeding forty million rand or CIDB grading level 8 and will start on or after 7 February 2017. If approved, the provincial director will issue a construction work permit in writing to perform construction work within 30 days of receiving the application and assign a site-specific number for the construction site. It is the intention of SANRAL to apply for a construction work permit as soon as the Contractor is appointed and his Health and Safety Plan is received, in order to minimize construction delays.

The site-specific construction work permit number must be displayed at the main entrance to the site and a copy of the construction work permit must be kept in the principal contractors health and safety file for inspection purposes.

8. DUTIES

Various duties are imposed on the client, designer, principal contractor and other contractors by the Construction Regulation, 2014, Sections 5, 6 & 7. SANRAL will comply and carry out the required duties as contemplated in section 5 of the Construction Regulations, 2014 and it is expected from the designer and every contractor to make themselves conversant with the requirements and duties imposed on them and to ensure that they comply with the requirements of section 6 & 7 at all times.

9. MANAGEMENT AND SUPERVISION

The contractor shall ensure that the project is managed safely and legal compliance is ensured at all times.

A full-time competent person must be appointed as a Construction Manager to manage all construction work, including health and safety compliance. The construction manager may not be appointed to manage more than one single construction site.

The construction manager must appoint construction supervisors responsible for construction activities and ensuring occupation health and safety on the construction site.

The contractor must appoint a full-time or part-time construction health and safety officer, who is registered with the SACPCMP, to assist in the control of health and safety aspects on site.

10. RISK MANAGEMENT

The Contractor must follow a formal risk-based approach to ensure hazard control measures are implemented to an acceptable reasonable practical level. The contractor and his employees shall be responsible to ensure all hazards pertaining to his scope of activity are proactively identified, the risks assessed and appropriately eliminated or minimized and managed on an ongoing basis. Risk assessments shall also identify possible and potential environmental, health and hygiene issues pertaining to each hazard with potential exposures and limits.

a) Hazard Identification and Risk Assessment (Construction Regulation 9)

i. Development of Risk Assessments

The contractor shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, conduct a risk assessment by a competent person, appointed in writing and the risk assessment so produced shall form part of the OH&S plan and be implemented and maintained as contemplated in Construction Regulation 9(1). Competence is a factor of training, knowledge, experience and/or appropriate qualifications.

The risk assessment shall include, as far as is reasonably practicable, at least:

- The task or task step

- the identification of the risks and hazards to which persons may be exposed during the task or task step;
- the analysis and evaluation of the risks and hazards identified, inclusive of a residual risk rating methodology. The method to be used is not prescribed;
- a documented plan of safe work procedures, to mitigate, reduce or control those residual risks that have been identified as unacceptably high, by means of the rating system;
- a monitoring plan;
- a review plan, inclusive of dates to be adhered to; and
- ergonomic related risks are to be analysed, evaluated and addressed as part of the process.

Based on the risk assessments, the contractor shall develop a set of site-specific OH&S rules that shall be applied to regulate the OH&S aspects of the construction. The risk assessments, together with the site-specific OH&S rules shall be submitted to the Employer before construction on site commences. SANRAL has conducted a Baseline Risk Assessment as per 11.1 below, which must be used by the contractor to develop task specific risk assessments before work commences. This does not mean that all possible Risk Assessments must be attended to before work commences, but that all relevant Risk Assessments receive the necessary attention as the contract progresses, and this is the responsibility of the contractor. All variations to the scope of work shall similarly be subjected to a risk assessment process.

b) Risk Assessment Monitoring

The contractor shall ensure that a monitoring plan for all risk assessments are in place. Risk assessments must be monitored to ensure effectiveness and employee understanding. The monitoring of risk assessments shall be formal and records thereof shall be available for audit purposes.

c) Review of Risk Assessment

The contractor shall review the hazard identification, risk assessments and standard safe working procedures prior to any work activity commencement and at each production planning and progress report meeting as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and processes. The contractor shall provide the Employer, sub-contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated above.

Activities carried out without conducting a risk assessment or found to be non-compliant with the risk assessment, will be stopped until such time a risk assessment is compiled and work is carried out according to the risk assessment.

Risk assessments must be fully communicated to all relevant personnel and must be considered when establishing training, awareness and competency requirements.

d) Baseline Risk Assessment

SANRAL will prepare a Baseline Risk Assessment from which the Health and Safety Specifications for the project will be prepared. The Baseline Risk Assessment will highlight all work for which the Contractor must prepare safe work procedures and or work method statements. In this case the Baseline Risk Assessment will not identify risks or control measures, this must be identified by Contractor when preparing the Issue Based Risk Assessments.

The Baseline Risk Assessment for this Project can be found on page 17 section 19.1 of this document.

e) Continuous Risk Assessment

The Contractor shall continuously assess the risks of the activities that are carried out. Risk assessments must be in writing, site specific and must be reviewed continuously to ensure it is current and it address all the relevant hazards and risks associated with the specific activity at the specific site.

The Risk assessment must be discussed with the whole work crew before the activity starts and the work crew must acknowledge in writing having discussed the risk assessment and that they understand it. This acknowledgement must be on site and must be available to the client for audit purposes.

11. LEGAL COMPLIANCE & DOCUMENT CONTROL

The contractor is required to implement systems and procedures to ensure legal compliance through:

- Identification of all relevant HSE legislation, standards and codes applicable to its operations.
- Have available copies of all relevant HSE legislation, standards and codes for reference purposes.
- Update legislation, standards and codes with any changes
- Communicate to all employees any changes that may affect their accountabilities and conformances
- Incorporate any legal requirements into their HSE management system
- Monitor and review their HSE management system for effectiveness.

The contractor shall, as a minimum, comply with:

- The Occupational Health and Safety Act and Regulations (Act 85 of 1993), an up-to-date copy of which shall be available on site at all times.
- The Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993), an up-to-date copy of which shall be available on site at all times.
- Where work is being carried out on a “mine”, the contractor shall comply with the Mines Health and Safety Act and Regulations (Act 29 of 1960) and any other OH&S requirements that the mine may specify. An up-to-date copy of the Mines Health and Safety Act and Regulations shall be available on site at all times.

Wherever in the Construction Regulations or this specification there is reference to other regulations (e.g. Construction Regulation 24: Electrical Installations and Machinery on Construction Sites) the contractor shall be conversant with and shall comply with these regulations.

11.1 Legal Appointments

All legal appointments of the Contractor regarding the Health and Safety of his employees who are to work on the project are addressed and governed by the OHS Act and applicable Regulations. Legal appointments must be in place and must reflect in the project safety file before work commences.

i. Overall Supervision and Responsibility for OH&S

SANRAL will appoint the Principal Contractor in terms of Construction Regulation 5(1)(k). A Mandatory agreement as per Section 37.2 of the OHS Act, shall be signed between SANRAL and the Principal Contractor.

It is a requirement that the Principal Contractor, when he appoints other contractors in terms of Construction Regulations 7(1)(c), 7(1)(d), 7(1)(f) and 7(3) includes in his agreement with such Contractors the following:

- OH&S Act (85 of 1993), Section 37(2) agreement: “Agreement with Mandatory”
- OH&S Act (85 of 1993), Section 16(2) appointee(s) as detailed in his/her/their respective appointment forms. (Where applicable)

The signed Mandatory agreements shall be placed in the project file for reference and for audit trail purposes.

ii. Specific Supervision Responsibilities for OH&S

The contractor shall appoint designated competent employees and/or other competent persons as required by the OHS Act and Regulations, as well as this specification. Appointments shall be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information shall be communicated to and agreed with the appointees. Where applicable, the training certificate must be attached to the appointment. Notice of appointments shall be submitted to the Employer. All changes shall also be communicated to the Employer.

Below is a list of possible appointments for the project, which is not an all-inclusive list, but for reference purposes only:

Appointment	Legal Reference
Assistant to CEO	OHS Act 16(2)
Health and Safety Representative	OHS Act 17(1)

Nominated Health and Safety Committee Member	OHS Act 19(3)
Contractor (Sub-contractor)	CR 7(1)(c)(v)
Construction Manager & Alternate Construction Manager	CR 8 (1)
Assistant Construction Manager	CR 8(2)
Health and Safety Officer	CR 8(5)
Construction Supervisor	CR 8(7)
Assistant Construction Supervisor	CR 8(8)
Risk Assessor	CR 9(1)
Fall Protection Plan Developer	CR 10(1)(a)
Structure Inspector	CR 11(2)(a)
Temporary Works Designer	CR 12(1)
Temporary Works Supervisor	CR 12(2)
Excavation Supervisor	CR 13(1)(a)
Demolition Supervisor	CR 14(1)
Competent Person in the use of Explosives	CR 14(11)
Scaffold Supervisor	CR 16(1)
Suspended Platform Supervisor	CR 17(1)
Rope Access Supervisor	CR 18(1)(a)
Material Hoist Inspector	CR 19(8)(a)
Bulk Mixing Plant Supervisor	CR 20(1)
Explosive actuated fastening device Inspector	CR 21(2)(b)
Explosive actuated fastening device cartridge Controller	CR 21(2)(g)(i)
Construction Vehicle & Mobile Plant Operator Authorised	CR 23(1)(d)(i)
Temporary Electrical Installation Controller	CR 24(c)
Stacking and Storage Supervisor	CR 28(a)
Fire Equipment Inspector	CR 29(h)
Incident investigator	GAR 9(2)
Lifting tackle inspector	DMR 18(10)(e)
Ladder inspector	GSR 13(a)
Certified Explosives Manager	ER 12(1)
First Aider GSR	GSR 3(4)
Hazardous Chemical Substance Supervisor	

In addition to the above, the Employer requires that a Traffic Safety Officer be appointed.

It is a requirement that the contractor shall provide the Employer with an organogram of all sub-contractors that he/she has appointed or intends to appoint and keep this list updated and prominently displayed on site.

iii. Designation of OH&S Representatives (Section 17 of the OH&S Act)

Where the contractor employs more than 20 persons (including the employees of sub-contractors) he has to appoint 1 (one) OH&S representative for every 50 employees or part thereof. This is a minimum (legal) requirement. The contractor may at his own discretion appoint more OH&S representatives according to site specific requirements. General Administrative Regulation 6 requires that the appointment or election of the OH&S representatives be conducted in consultation with employee representatives or employees (Section 17 of the Act and General Administrative Regulation 6 & 7). OH&S representatives shall be designated in writing and the designation shall include the area of responsibility of the person and term of the designation. OH&S representatives must be experienced, permanently employed by the contractor or his sub-contractors, trained and able to move freely within their designated area of responsibility.

iv) Duties and Functions of the OH&S Representatives (Section 18 of the OH&S Act)

The contractor shall ensure that the designated OH&S representatives perform their functions in respect of the workplace or section of the workplace for which they have been appointed. These functions include: conduct continuous monitoring and monthly inspections of their respective areas of responsibility, focusing on unsafe acts and unsafe conditions and report thereon to the contractor. OH&S representatives shall participate in accident or incident investigations. OH&S representatives shall attend all OH&S committee meetings. The complete list of functions can be found in Section 18 of the OHS Act.

v) Appointment of OH&S Committee (Sections 19 and 20 of the OH&S Act)

The contractor shall establish an OH&S committee, which shall meet at least once a month, where two or more Health and Safety Representatives have been appointed. OH&S representatives must be appointed as OH&S committee members. The number of management appointed members may not exceed the number of OH&S representatives on the committee.

12. OPERATIONAL INTEGRITY

The operational integrity of plant, equipment, structures and protective systems must be monitored and assured on an ongoing basis throughout the project cycle. Hazards must be identified, assessed and as far as reasonably practicable, eliminated or the risks treated to as low as reasonable practicable (ALARP).

12.1 Plant & Equipment Integrity

12.12.1 Construction Plant & Equipment

The Contractor shall maintain all items of plant and equipment necessary to perform the work in a safe condition.

SANRAL reserves the right to inspect items of plant and equipment brought to site and used on site by the contractor. Should it be found that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the contractor will be advised of such observation / inspection, and the contractor shall be required to repair, make safe or remove such item from operation and replace it with a safe and adequate substitute.

The contractor shall ensure that all plant, equipment, and power tools that are brought onto and used on site are:

- Appropriate for the type of work to be performed
- Placed on a register and inspected by a competent person or the authorized operator before use, daily or monthly dependent on Legislation and project requirements.
- Record inspection findings on a register that must be kept on site.
- The inspection register shall reflect the serial number of the plant, equipment or power tool.
- Maintained and used in accordance with the manufacturers recommendations
- Have adequate machine guarding fitted to all exposed rotating or moving parts, as reasonably practicable, that have the potential to cause harm
- All electrical power supply units are protected with operational earth leakage devices.
- Any defective, damaged or sub-standard equipment must be marked as unsafe for use and removed from operation as soon as possible

12.12.2 Standards and Registers

As standard project procedures, the contractor is expected to:

- Set up an initial set of registers as per the requirements of the OHS Act and Regulations.
- Complete the registers for each piece of plant, tool and equipment brought on and used on site
- Maintain a complete, continuous and comprehensive inspection and service history in these registers or checklists
- Ensure daily, weekly, monthly inspections are done and recorded for all plant, tools & equipment by a competent person as required by the OHS Act and Regulations.

- Have the inspection and maintenance records available for audit purposes.

13. OCCUPATION HEALTH & HYGIENE

13.1 Medical Fitness for Duty

All contractor employees shall undergo medical examinations and be certified fit for duty by an Occupational Health Practitioner before they are allowed to work on site.

The medical certificate must be in the form of Annexure 3 of the Construction Regulations and stipulate the possible exposures the employee might be exposed to during the execution of the project.

It is recommended and in the best interest of the Contractor to implement pre-employment as well as exit medical surveillance, especially with regards to Section 8 of the Noise Induced Hearing Loss Regulation.

13.2 First Aid

According to GSR 3(4), where more than 10 employees are employed at a workplace/worksites, the Contractor shall ensure that there is at least one trained first aider for every group of 50 employees at the workplace/site. First Aid boxes must be provided where more than 5 employees are employed and must be readily available and accessible for the treatment of injured persons at the workplace.

To ensure immediate treatment of an injured person, it is recommended that all work crews have at least one trained first aider, with a fully stocked first aid box, irrespective of the number of people in the work crew. This is especially important when contractors work at great distances from the nearest emergency facility or town. These persons shall be appointed in writing as the first aiders with their certificates attached as proof of competency.

The minimum contents of the first aid box shall be as per the supplied list in the General Safety Regulations.

All treatments done must be recorded on a register and kept with the first aid box. A trained and appointed first aider must be responsible for the first aid box and its content. Used content must be replenished as soon as possible.

In order to ensure prompt response at the emergency facility it is recommended that the W.Cl 2 forms be partially completed with the employers' details.

13.3 Hygiene Facilities

The Contractor shall ensure compliance to Section 30 of the Construction Regulations with regards to facilities on the construction site as well as where accommodation is provided to employees on remote sites. The contractor shall ensure that the facilities are kept clean at all times, either through a Service Provider or self-employed persons.

14. WASTE MANAGEMENT

The contractor shall comply with all applicable and relevant Waste management legislation, as well as municipal bylaws applicable to waste management.

The contractor shall remove all waste generated at the construction site on a daily basis or as soon as possible after generation to ensure good housekeeping at all times. The contractor shall have a waste management plan which must be implemented on the construction site and which will have the objective to ensure that waste is managed according to the Waste Management Hierarchy:

- Reduce what you can. If you cannot reduce then,
- Re-use what you can. If you cannot re-use then,
- Recycle what you can. What you cannot recycle,
- Convert into energy sources. If it cannot be converted to an energy source,
- Dispose of in a landfill – this is only to be done as a last resort and disposed without endangering human health and without using processes or methods which could harm the environment.

15. HAZARDOUS SUBSTANCE MANAGEMENT

The contractor shall ensure that hazardous substances brought onto site are easily identifiable and stored according to the requirements of the General Safety Regulations, GNR. 1031 of 1986, Section 4. Where flammable liquids are being used or stored, this must be done in a manner which would not cause a fire or explosion hazard.

The contractor shall have Material Safety Data Sheets (MSDS) readily available for flammable, hazardous and toxic chemical substances and materials brought onto site and shall ensure that his employees are trained in these MSDS's.

Flammable, hazardous or toxic chemical substances may not be stored in empty food or drink containers. Empty flammable, hazardous and toxic containers must be disposed of in a safe manner, which will prevent further use of such a container.

Asbestos

A survey of the construction site must be done during site establishment, to locate any asbestos. Should asbestos be located, the conditions of the Asbestos Regulations, GNR. 155 of 2002 must be followed and complied with.

16. CONTRACTORS

16.1 Consultations, Communications and Liaison

OH&S liaison between the Employer, the contractor, the subcontractors, the designer and other concerned parties will be through the OH&S committee. In addition to the above, communication may be directly to the Employer or his appointed agent, verbally or in writing, as and when the need arises.

Consultation with the workforce on OH&S matters will be through their construction managers and supervisors, OH&S representatives and the OH&S committee. The contractor shall be responsible for the dissemination of all relevant OH&S information to the sub-contractors e.g. design changes agreed with the Employer and the designer, instructions by the Employer and/or his/her agent, exchange of information between sub-contractors, the reporting of hazardous/dangerous conditions/situations, etc. The contractors' most senior manager on site shall be required to attend all OH&S meetings.

16.2 Operational Procedures

Each construction activity shall be assessed by the contractor to identify operational procedures that will mitigate against the occurrence of an incident during the execution of each activity. This specification requires the contractor:

- to be conversant with all relevant Regulations;
- to comply with their provisions;
- to include them in his OH&S plan where relevant

16.3 Checking, Reporting and Corrective Actions

i. Monthly Audit by Employer (Construction Regulation 5(1)(o))

The Employer will conduct monthly health and safety and document verification audits in compliance with Construction Regulation 5(1)(o) in order to ensure that the contractor has implemented and is maintaining the agreed and approved OH&S plan.

ii. Other Audits and Inspections by the Employer

The Employer reserves the right to conduct other ad-hoc audits and inspections as deemed necessary. This will include site safety walks.

iii. Contractor's Audits and Inspections

The contractor must conduct his own regular internal audits to verify compliance with his own OH&S management system, as well as with this specification. The contractor shall furthermore ensure that each sub-contractor's health & safety plan is being implemented by conducting periodic audits at intervals mutually agreed between the contractor and sub-contractors, but at least once per month.

iv. Inspections by OH&S Representatives and other Appointees

OH&S representatives shall conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees shall conduct inspections and report thereon as specified in their appointments e.g. vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

v. Recording and Review of Inspection Results

All the results of the above-mentioned inspections shall be in writing, reviewed at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.

16.4 Project Health and Safety Management Plan

As per Section 5(1)(l) and Section 7(1)(a) of the Construction Regulations of 2014, the contractor shall develop, implement and administer a Health and Safety Management Plan. The plan shall be in writing and shall be negotiated between the Contractor and SANRAL or designated OHS Agent and must be approved by SANRAL or the designated OHS Agent **prior** to the commencement of work on site. The plan shall demonstrate management's commitment to ensure employee health and safety as their primary objective during the contract. As a suggestion, the following elements may be used to develop the H&S plan:

Introduction

- Mission
- Purpose & Scope
- Health, Safety and Environmental Policy
- Health, Safety and Environmental Goals
- Plan Objectives

Leadership and Commitment

- Values supporting commitment
- Roles, Responsibilities and Accountability

Hazard and Risk Management Process

- Effective Consultation
- Planning

Contractor HSE Alignment

- Sub-Contractors
- On-Site

Learning and Competency

- Project HSE Training and Competency Requirements
- Contractor & Sub-Contractor Duties
- Minimum Training Requirements
- Medical and Induction
- Employee details
- Visitors to site
- Induction

Involvement, Communication and Motivation

- Safety Meetings
- Health & Safety Behaviour
- Information and Learning

Hazard and Risk Management on site

Hazardous Activities
Hazardous Areas
Hierarchy of Hazard Control
Hazard and Risk Identification
Risk Analysis and Evaluation
Documented safe work procedures for hazardous activities
Hazard and Risk monitoring plan
Hazard and Risk review plan

Occupational Health and Hygiene

Fitness for Work
Hazardous Substances
Airborne Chemical Substances
Noise and Vibration
Personal Hygiene
Protection of Outdoor Workers
Occupational Health Services on Site

Performance Tracking and Accountability

Positive Performance Indicators
Workplace Observations and Audits
Reporting

Incident Management

Emergency Preparedness and Response
Incident Management
Injury Management

Waste Management

Hazardous Waste
Non Hazardous Waste - Recyclable
Non Hazardous Waste – Non recyclable

16.5 Project Health and Safety File

The contractor shall compile a project specific Health and Safety File that consist of all the relevant project specific documentation. The Health and Safety file may consist of multiple files, which when combined should contain all the required documentation.

It is recommended that the project specific Health and Safety file contain at least the following:

- Scope and summary of the project as well as any scope changes.
- Notification of Construction Work to DoL / Copy of Work Permit
- Proof of COID registration (Letter of Good Standing)
- Contractor Health and Safety Policy statement signed by management
- Mandatory Agreement – OH&S Act 37.2 (Between Employer and Principal Contractor)
- Signed Client Health and Safety specification
- Latest copy of the OHS Act and Regulations
- Company Organogram depicting Health and Safety Responsibilities, including sub-contractors
- Employee list including copy of IDs and medicals
- Project specific Health and Safety Management Plan agreed with the Employer – See point 16.4 above
- Relevant OH&S Legal appointments which includes duties and responsibilities as well as competencies (training certificate)
- Copies of minutes of meetings - OH&S committee and other relevant OH&S meeting minutes
- Designs/drawings (Construction Regulation 7(1)(e))
- Site specific Fall Protection Plan (if applicable)
- Risk Assessments
- Contractor Induction material
- Waste management Plan
- Emergency preparedness (first aid, firefighting, emergency plan, etc.)
- Emergency Contact Telephone numbers
- HIV awareness program

- List of hazardous chemical substances used on site
- Material Safety Data Sheets of hazardous chemicals on site
- List of plant & equipment to be used on site
- Inspection Checklists/Registers of plant & equipment and emergency equipment
- List of Sub-contractors including type of work
- Sub-contractor 37.2 Mandatory Agreements
- Sub-contractor appointments which shall include the type of work the contractor is appointed for.

16.6 Contracting Philosophy

Any site-specific hazards and safety management expectations will be made known to the Contractor prior to the work commencing on site. Legal OHS requirements contained in the OHS Act and Regulations as well as SANS Codes are the minimum requirements the Contractor must apply during this contract with regards to Occupational Health and Safety. The Contractor shall apply, implement and enforce the minimum OHS Act & Regulations and SANS Codes requirements.

16.7 Workers Compensation Registration

The Contractor shall ensure that his employees are covered for any occupational injuries and illnesses in terms of the Occupational Injuries and Diseases Act 130 of 1993, which cover shall remain in place and up to date for the duration of the project.

16.8 HSE Non-Compliance

It is a legal duty of the client according to the Construction Regulation 5(1)(q) that a contractor is stopped from executing any activity which poses a threat to the health and safety of persons. Depending on the seriousness of the non-compliance only the specific activity may be stopped until the non-compliance is rectified or the whole operation may be stopped.

It is also the duty of every employee to take reasonable care of his own health and safety and of other persons who may be affected by his acts as per OHS Act, Section 14(a). Keeping this in mind, it is required of the contractor to ensure his employees has the right to remove themselves from any unsafe situation or work activity, without any negative consequence to them until such time as the contractor has made the unsafe situation or activity as safe as practicable possible.

16.9 Indemnity by Contractor

The Contractor shall indemnify the Employer against and from all damages, losses and expenses (including legal fees and expenses) resulting from:

- (a) the loss of output and delay caused by the slowing down or partial or total stoppage of work caused by:
 - i. all or any of the Contractor's workforce as a result of a dispute between all or any of the Contractor's workforce and the Contractor; or
 - ii. all or any of the Contractor's suppliers' difficulty or impossibility to deliver goods or materials needed to perform the Works;
- (b) any unlawful, riotous or disorderly conduct by or amongst the Contractor's personnel."

16.10 Contractor Conduct

Guidelines to the most important rules that shall be implemented and maintained by the Contractor:

- Complete compliance to the OH&S Act and Regulations
- Hazard identification and Risk Assessments for all activities
- Daily communication of DSTI talk before work commences
- Safe access and egress to and from work areas.
- Compulsory use of lifelines, Safety Harnesses and Fall Arrestors (Lanyards to be attached at all times)
- Scaffold shall comply with Legal and SANS standards at all times
- Good housekeeping and stacking practices
- Safe lifting, rigging and slinging practices
- Complying to Legal standards for lifting machinery & equipment
- No lifting in wind conditions exceeding 30km/h (This is a guide and is dependent on risk assessments)
- Securing of tools, equipment and material at heights

- Wearing of appropriate personal protective equipment as identified in the risk assessment

Personal Conduct

Supervisors in charge are responsible for ensuring that the employees are aware of the hazards / risks involved in the work they will be doing / are doing and shall ensure the safety rules are obeyed.

No person shall act in a manner that endangers or is likely to endanger, the safety of any other person, or cause harm to any other person.

An employee who observes any dangerous situation, shall as soon as possible inform the person who is responsible for that section of the site.

Any employee who becomes aware of any person disregarding any safety rules, shall remind that person of the rules. If he persists in disregarding the rules, the matter must be reported to his supervisor.

No person shall damage, alter, remove, render ineffective or interfere with anything that has been provided for the protection of the site, or for the health and safety of persons.

No person shall interfere with or use firefighting equipment without authority and training.

No person in a state of intoxication or condition that render him incapable of controlling himself shall enter or be allowed to enter the site.

No alcohol or illegal drugs shall be taken onto the site.

All safety and warning signs shall be obeyed.

Always be alert of construction vehicles as well as traffic. Never turn your back to oncoming traffic, always have a line of sight.

16.11 Contractor and Sub-Contractor Management

The Principal Contractor shall establish, maintain and ensure that all his contractors establish and maintain HSE standards and systems as necessary and to comply with the Legal requirements as well as these HSE specifications.

The Contractor shall be solely responsible for carrying out work on the project, having the highest regard for the health and safety of his employees and people in the vicinity of his work area.

16.12 Public Health and Safety

The contractor shall, as far as is reasonably practicable, be responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimise those dangers.

This includes:

- Non- employees entering the site for whatever reason
- The surrounding community
- Passers-by to the site

17. DESIGNING FOR HEALTH, SAFETY AND THE ENVIRONMENT

Designing for safety is a process aimed at minimizing injury, death, property damage or destruction and harm to the environment, by utilizing an approach to identify and eliminate or control hazardous areas. The project Designer and Contractor must implement a process that ensures safety is incorporated in the design process, which includes temporary works as contemplated in the Construction Regulations, 2014 Section 12.

The Contractor must communicate the anticipated risks and hazards resulting from the design to his employees and establish safe work procedures for the temporary works.

18. INCIDENT MANAGEMENT

The Contractor shall ensure that a culture exists within his company that promotes the recognition, response, reporting and investigation of incidents, including near misses (near hits). The Contractor must implement a procedure for reporting and investigating accidents, incidents and near misses. The Contractor should have a clear objective and target to obtain zero injuries for the duration of the project and such an objective must be communicated to all employees.

Appropriate corrective actions must be implemented and the applicable learnings must be shared within the Contractors business to prevent a recurrence of the incident or to prevent the near miss from becoming an incident in future.

18.1 Incidents and Accidents

The contractor and his subcontractors shall coordinate their investigation of all accidents/incidents where employees and non-employees were injured to the extent that he had to be referred for medical treatment by a doctor, hospital or clinic. The results of the investigation shall be entered into an accident/incident register, which must be updated with each accident/incident.

The Contractor shall notify the relevant SANRAL Project Manager and or SANRAL OHS Specialist of any incident/accident within the Contractors or his Sub-Contractors area of responsibility in writing as soon as possible.

Although the accident / incident is reported to the client, the Contractor has a responsibility and is required by law to report any Section 24 accidents and incidents to the Department of Labour. Any road traffic accident must be reported to the relevant authorities.

It is essential that the Contractor demonstrate that corrective and preventative action has been taken to prevent a similar incident in future and that it is communicated to all the Contractors affected staff. A copy of the investigation, corrective and preventative action taken as well as the attendance register of the employees who attended the discussion of the incident and the action implemented to prevent a similar incident, must be forwarded to the SANRAL Project Manager and or the SANRAL OHS Specialist.

Investigations must be completed for:

- Near Miss Incidents (To prevent it from becoming an incident)
- First Aid case Incidents
- Medical treatment case Incidents
- Fatalities

18.2 Incident Reporting

The contractor shall provide the Employer with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring. In addition, the contractor shall update monthly the Disabling Injury Frequency Ratio (DIFR) and display this information on a signboard at the site office.

The Contractor is responsible for collecting, recording, calculating and reporting his and his sub-contractors Health & Safety statistics to the SANRAL OHS Specialist.

The statistics should contain at least the following for all employees of all contractors working on the project:

- Total Number of workers
- Total Number of hours worked (on the SANRAL project)
- Total Number of Near Miss Incidents
- Total Number of First Aid case Incidents
- Total Number of Medical Treatment case Incidents (Excluding Section 24 type incidents)
- Total Number of Section 24 type Incidents
- Preventative actions taken on incidents that have occurred
- Communication to employees and contractors of incidents and preventative actions.

19. PROJECT SPECIFIC CONSTRUCTION REQUIREMENTS

Section 1 to 18 of this document is generic and is applicable to all projects carried out on behalf of the South African National Roads Agency, SOC Ltd.

The following section contains specific requirements for Contract No: NRA C.002-025-2018/1 which must be adhered to in addition to minimum legislative requirements.

19.1 Baseline Risk Assessment

The following is a list of risks identified which forms the Baseline Risk Assessment for the project prepared by the Client in terms of Construction Regulation 5(1)(a):

Risks in connection with:

- a) Personal health risks in connection with ablution facilities, eating areas, drinking water.
- b) Secure/safe storage of materials, plant and equipment
- c) Secure/safe storage and use of hazardous and/or flammable materials
- d) Maintenance workshop - onsite repairs to construction vehicles, mobile plant & equipment.
- e) Possibility of asbestos in existing structures
- f) Existing services, e.g. gas, telecommunications, electrical supply and similar
- g) Temporary electrical installations
- h) Adjacent land uses/surrounding property exposures
- i) Boundary and access control/public liability exposures (NB: The Employer is also responsible for the OH&S of non-employees affected by his/her work activities)
- j) Biological hazards, e.g. bees, snakes, spiders
- k) Environmental risks, e.g. lighting, strong winds, heavy rains, dark environments, hot/cold and wet environments
- l) Exposure to a water environment
- m) Exposure to noise
- n) Exposure to vibration
- o) HIV/Aids and other diseases such as silicosis or asbestosis, where applicable
- p) Use of portable electrical equipment including, but not limited to:
- q) Angle grinder
- r) Electrical drilling machine
- s) Circular saw
- t) Generator
- u) Excavations including, but not limited to:
- v) Ground/soil conditions
- w) Trenching
- x) Shoring
- y) Drainage of trenches
- z) Welding including, but not limited to:
- aa) Arc welding
- bb) Gas welding
- cc) Flame cutting
- dd) Use of LP gas torches and appliances
- ee) Loading and off-loading of trucks, including material deliveries
- ff) Manual and mechanical handling
- gg) Lifting and lowering operations
- hh) Driving and operation of construction vehicles and mobile plant including:
- ii) Trenching machine
- jj) Excavator
- kk) Bomag roller
- ll) Plate compactor
- mm) Front end loader
- nn) Mobile cranes and the ancillary lifting tackle
- oo) Grader
- pp) Parking of vehicles and mobile plant
- qq) Towing of vehicles and mobile plant
- rr) Layering and bedding
- ss) Installation of pipes in trenches
- tt) Pressure testing of pipelines
- uu) Backfilling of trenches
- vv) Protection against flooding
- ww) Gabion work

- xx) Use of explosives
- yy) Overhead Electrical Cables
- zz) Work adjacent or in proximity of railway lines
- aaa) Work adjacent or in proximity of traffic
- bbb) Working in elevated positions
- ccc) Working in confined spaces – tunnelling
- ddd) Formwork and support work (temporary works) including scaffolding
- eee) Demolition work, where applicable
- fff) Bulk mixing plant, where applicable
- ggg) Environmental impacts such as pollution of water, air or soil

19.2 Daily Site Attendance Register

The Contractor shall keep a daily site register so as to be able to identify the entire Contractors personnel on site in case of an emergency or evacuation situation. The attendance register must include permanent as well as temporary workers working on the site.

All site visitors and any new contractors shall report to security / reception upon arrival at site. The Contractor will only be granted first time access to work on the site if all required documentation has been provided and approved.

All visitors need to sign an attendance register when visiting the site. Visitors include all persons which are not permanently working on the site, but excludes temporary site workers. Visitors must undergo site induction training before they are allowed on site to make them aware of the site dangers.

19.3 Emergency Numbers / Emergency Evacuation

A list with emergency numbers must be readily available to first aiders and supervisors. Emergency numbers must be site specific and must display the nearest emergency facilities.

The contractor shall identify and formulate emergency procedures in the event an incident does occur. The emergency procedures thus identified shall also be included in the contractor's OH&S plan and communicated as part of induction training. It is the responsibility of the first aid worker, together with the construction supervisor, to make an assessment regarding the severity of injuries and which actions are appropriate. For example: transfer to a medical facility by ambulance or helicopter.

The Contractor must implement an emergency evacuation procedure on site to ensure that in case of an emergency, all staff will leave their place of work when the emergency siren is sound and proceed to the demarcated emergency assembly point. The emergency assembly point must display the sign "Emergency Assembly Point".

An evacuation route diagram must be displayed and visible at strategic points in buildings and on notice boards.

All staff working on site must be given awareness training on the emergency evacuation procedure and evacuation drills must be exercised to ensure all staff know the correct procedure to follow in case of an emergency.

19.4 Site Security

Certain areas where work must be carried out, is recognized unsafe areas and certain other areas may from time to time become unsafe, due to 3rd party actions. The Contractor must as far as reasonably possible anticipate unsafe areas and must ensure that his site staff is safe from 3rd party actions, which include but is not limited to:

- Unrests,
- Violent Demonstrations,
- Theft,
- Injury from 3rd parties at all times.

The Contractor must, when work is to be carried out in the above-mentioned areas, make provision for security services to accompany site staff during the execution of their work, as the Contractor is responsible for the Health, Safety and Security of his own staff. The provision for security services must form part of the Contractors tender.

19.5 Personal Protective Equipment

Comply with General Safety Regulations, Section 2

The contractor shall identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable, take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment (PPE) should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of PPE is considered. The hierarchy of hazard elimination must be followed before the option of personal protective equipment is considered. The following hierarchy of controls must be followed:

- Elimination
- Passive Controls
 - o Substitution – Using a cherry picker or man-lift instead of a ladder.
 - o Engineering Controls – Installing barrier railings; Installing stairs instead of using vertical ladders.
- Active Controls
 - o Administrative policies and procedures
 - o Personal protective equipment

Where it is not possible to create an absolutely safe and healthy workplace the contractor shall inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

It is a further requirement that the contractor maintain the said equipment, that he instructs and trains the employees in the use of the equipment and ensures that the prescribed equipment is used by the employee/s.

Employees do not have the right to refuse to use/wear the equipment prescribed by the Employer and, if it is impossible for an employee to use or wear prescribed protective equipment through health or any other reason, the employee cannot be allowed to continue working under the hazardous condition/s for which the equipment was prescribed but an alternative solution has to be found that may include relocating the employee.

The contractor shall include in his OH&S plan the PPE he intends issuing to his employees for use during construction and the sanctions he intends to apply in cases of non-conformance by his employees. Conformance to the wearing of PPE shall be discussed at the weekly inspection meetings.

The contractor shall ensure that all his personnel, excluding those who are permanently office bound, are equipped with reflective safety jackets and that these are worn at all times when working on site. Any person found not wearing a reflective jacket on site must be removed from the site until such time as he is in possession of and wearing a reflective jacket. Reflective safety jackets shall be kept in good condition and any jackets that are ineffective must immediately be replaced by the contractor.

19.6 Site Supervision

Comply with Construction Regulation, Section 8

The Contractor shall appoint a competent Construction Manager who shall be responsible for the construction activities and for ensuring occupational health and safety compliance on the construction site.

19.7 Working in Elevated Positions

Comply with Construction Regulation, Section 10

The contractor shall ensure that a fall protection plan, developed by a competent person who is designated as the Fall Protection Plan Developer, is available on site and understood by all employees who will be working in elevated positions.

All employees working in elevated positions shall protect themselves from falls by wearing a full body harness and the lanyard shall be attached as far as possible above the head of the worker to a life line or other approved and tested anchor point.

In addition to obvious elevated work activities, work activities which include:

- Working on the edge of an excavation where there is a risk of falling into the excavation;
- Work on the edge of a vertical drop where there is a risk of falling;
- Work on top of tanker trucks and tanks;

Shall be considered work in elevated positions and Section 10 of the Construction Regulations must be adhered to at all times. The hierarchy of controls must be implemented when such activities are carried out. As a minimum the employee must wear PPE, which shall include a full body harness attached to a restraint.

19.8 Structures

Comply with Construction Regulations, Section 11.

The contractor shall ensure that all practicable measures are taken to prevent the uncontrolled collapse of new or existing structures or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work. No structure may be loaded in a manner which would render it unsafe.

When a structure is of temporary nature, all conditions as required by the Construction Regulations Section 12 - Temporary Works, must also be complied with.

19.9 Excavations

Comply with Construction Regulations, Section 13

The Contractor shall ensure that all excavations are carried out under the supervision of a competent person who has been appointed in writing as Excavation Supervisor.

The Contractor must evaluate the stability of the ground before excavation work begins as well as during excavation work.

Excavations must be barricaded to prevent unauthorized access.

Material removed from excavations, as well as heavy machinery and construction vehicles, must not be closer than 1 meter of the edge of the excavation, to prevent additional loads on the excavation edge, which could cause cave-ins, to prevent construction vehicles from falling into the excavation and to prevent the accumulation of carbon monoxide gas inside the excavation.

People working in the excavation must be adequately protected from cave-ins, by means of protection systems such as trench boxes and shielding and must have a safe means of access into the excavation and egress from the excavation.

19.10 Scaffolding

Comply with Construction Regulations, Section 16, General Safety Regulations, Section 6 and SANS 10085 – The Design, erection, use and inspection of access scaffolding

The Contractor shall appoint a competent person in writing as scaffolding Supervisor. Scaffolding Inspectors and Scaffolding Erectors must be trained and found competent to carry out scaffolding work. It is important to note that only competent scaffold erectors are allowed to build the scaffolding. The scaffold inspector is not allowed to build the scaffold with the scaffold erector team.

Scaffolding shall be erected according to SANS 10085 and shall be tagged “safe for use” after inspection indicated that the scaffold is safe to use. The inspection of the scaffold shall be in writing and proof thereof shall be available for any user of the scaffold as well as for audit purposes.

Scaffold left erected while the Contractor is not in attendance, must be tagged with a “Not Safe for Use” tag and all reasonably practicable measures must be taken to prevent unauthorised access to the scaffold.

Scaffold must be inspected by the competent scaffold inspector on completion of the scaffold build, weekly thereafter or following severe weather conditions.

Hazards such as overhead power lines must be identified before the scaffold is build and must be reflected in the risk assessment.

When using mobile scaffold, employees and materials must be removed from scaffold before moving the mobile scaffold. Hazards such as overhead power lines must be identified before moving mobile scaffold and must reflect in the risk assessment.

19.11 Suspended Platforms

Comply with Construction Regulation, Section 17, SANS 10295-2 - Suspended access equipment Part 2: Temporary suspended platforms (TSPs)

All suspended platform work must be carried out under the supervision of a competent appointed Suspended Platform Supervisor. Suspended platform erectors, operators and inspectors must be competent.

The contractor must be in possession of a certificate of design for the use of the suspended platform system.

19.12 Cranes

Comply with Construction Regulation, Section 22, General Machinery Regulation, Section 18.

Crane operators must be competent to carry out their work safely and must be in possession of a valid medical certificate of fitness, issued by an occupational health practitioner.

19.13 Construction Vehicles & Mobile Plant

Comply with Construction Regulation, Section 23, National Road Traffic Act, 1996

Construction vehicle operators must have received training to operate the class of construction vehicle or mobile plant and must be in possession of an operator's card as proof of competency. Construction vehicle operators must be authorised in writing and have a medical certificate of fitness issued by an occupational health practitioner to operate the construction vehicle and/or mobile plant.

19.14 Electrical Equipment

Comply with Construction Regulations, Section 24

The contractor shall take adequate steps to ascertain the presence of and guard against danger to workers from electrical cables or apparatus which is under, over or on the site.

The exact location of underground electric power cables must be determined before any excavators are used for excavation purposes.

The location of overhead electrical cables must be assessed when working with cranes and lifting equipment. Injury may be possible from touching the electrical cables with the crane boom, or from arching when the crane boom comes too close to the electrical cable.

All temporary electrical installations must be inspected at least once a week by a competent person and the records of the inspections must be recorded in a register which must be kept on site.

Electrical machinery and extension cords must be in a serviceable condition and must be inspected on a daily basis before use on a construction site by the authorised operator and the inspection checklist must be kept on the construction site.

Electrical Installations

Comply with Electrical Installation Regulations

All electrical installations shall be inspected and approved by an accredited electrical inspector and a valid Certificate of Compliance must be issued for the installation.

All electrical installations carried out on site (permanent and temporary) must be in accordance and comply with the Electrical Installation Regulations.

All power supplies and generating units must be fitted with a functional earth leakage device.

19.15 Temporary Storage of Flammable Liquids

Comply with Construction Regulation, Section 25 and General Safety Regulations, Section 4

The Contractor must ensure storage areas of flammable liquids are well ventilated and “No Smoking” signs are placed at the entrances and ventilation ducts of the storage areas. Firefighting equipment must be available in suitable positions around the storage areas.

The Contractor must ensure that good housekeeping is practiced in and around the flammable storage areas.

19.16 Water Environments

Comply with Construction Regulation, Section 26

The Contractor must ensure that a lifejacket forms part of the employees PPE and is worn when the employee is exposed to the risk of drowning, by falling into water.

The risk assessment must make provision for the rescuing of persons in danger of drowning and for preventing employees from falling into the water.

When working over water environments, Section 10 of the Construction Regulations – Fall Protection will also apply.

19.17 House-keeping

Comply with Construction Regulation, Section 27, Environmental Regulations for Workplaces, Section 6(3)

The Contractor shall ensure that suitable and acceptable housekeeping is continuously implemented and maintained on the construction site. Off-cuts and waste must be removed by the end of the shift or as soon as practicable.

19.18 Stacking & Storage of Material & Equipment

Comply with Construction Regulations, Section 28 and General Safety Regulations, Section 8

The Contractor shall appoint a competent person in writing with the duty of supervising all stacking and storage operations on site.

Stacking shall only take place in areas specifically demarcated for this purpose. Circular items must be secured with wedges or chocks.

Items removed from a stack shall only take place from the top most layer of the stack.

Stacks shall not obstruct any fire extinguishing equipment, first aid equipment, electrical switchgear (DB Boxes) and ventilation or lighting installations.

Unstable stacks must be broken down immediately.

19.19 Fire Precautions

Comply with Construction Regulation, Section 29.

The Contractor must provide his own firefighting equipment that is within the service date and safe for use. Firefighting equipment must be on a register and inspected by a competent person who has been appointed in writing.

Suitable and sufficient fire extinguishing equipment must be placed at strategic locations and a sufficient number of firefighters must be available, which must be trained in the use of it.

19.20 Intoxicating Liquor and Drugs

Comply with General Safety Regulations, Section 2A

The site limit for intoxication is set to zero to complement a vision of zero tolerance

Any person found to be intoxicated, or consuming intoxicating liquor or illegal drugs, will not be allowed onto the premises and/or will be removed from the premises.

The Contractor has the right to test any person entering the premises for intoxicating liquor or illegal drugs and may refuse entrance on the basis of the outcome of the test.

The Contractor shall ensure that employees taking prescription medicine informs the Contractor of such and shall ensure that the side effect of such medicine does not constitute a hazard to the employee himself or people working in close vicinity to the employee.

19.21 Confined Space Work & Tunnelling

Comply with Construction Regulation, Section 15 and General Safety Regulations, Section 5

The Contractor shall ensure that only authorized persons enter confined spaces.

An entrance log must be kept to ensure people are not left inside the confined space. Adequate air monitoring must be carried out before entering the confined space. When air monitoring indicated the oxygen to be less than 20% by volume, the confined space must be purged and ventilated to obtain a safe atmosphere or self-contained breathing apparatus must be used.

19.22 Site Services

The Contractor shall provide and maintain on the Site adequate and suitable sanitary services and a supply of potable water for the Contractor's, the Employer's and the Engineer's personnel engaged on the Contract and, if necessary, similar facilities elsewhere for such personnel off the Site

Drinking Water

The Contractor must ensure that an adequate supply of potable drinking water is available for the Contractor's, the Employer's and the Engineer's personnel engaged on the Contract and, if necessary, similar facilities elsewhere for such personnel off the Site. Employees working in hot conditions must consume enough water per hour to prevent dehydration.

Where water is unsafe for human consumption, it must be so indicated by means of adequate signage.

Accommodation

The Contractor shall comply with the requirements of Construction Regulation 30 with regards to employee's facilities and accommodation. Reasonable and suitable living accommodation must be provided to employees who are far removed from their homes.

I _____, duly authorised to sign this Health and Safety Specification on behalf of _____ (the Contractor), do hereby declare that I acknowledge having read and understand this Health and Safety Specifications.

Signed at _____ on this ____ day of _____ 20_____.

Contractor Representative Name

Signature

Date

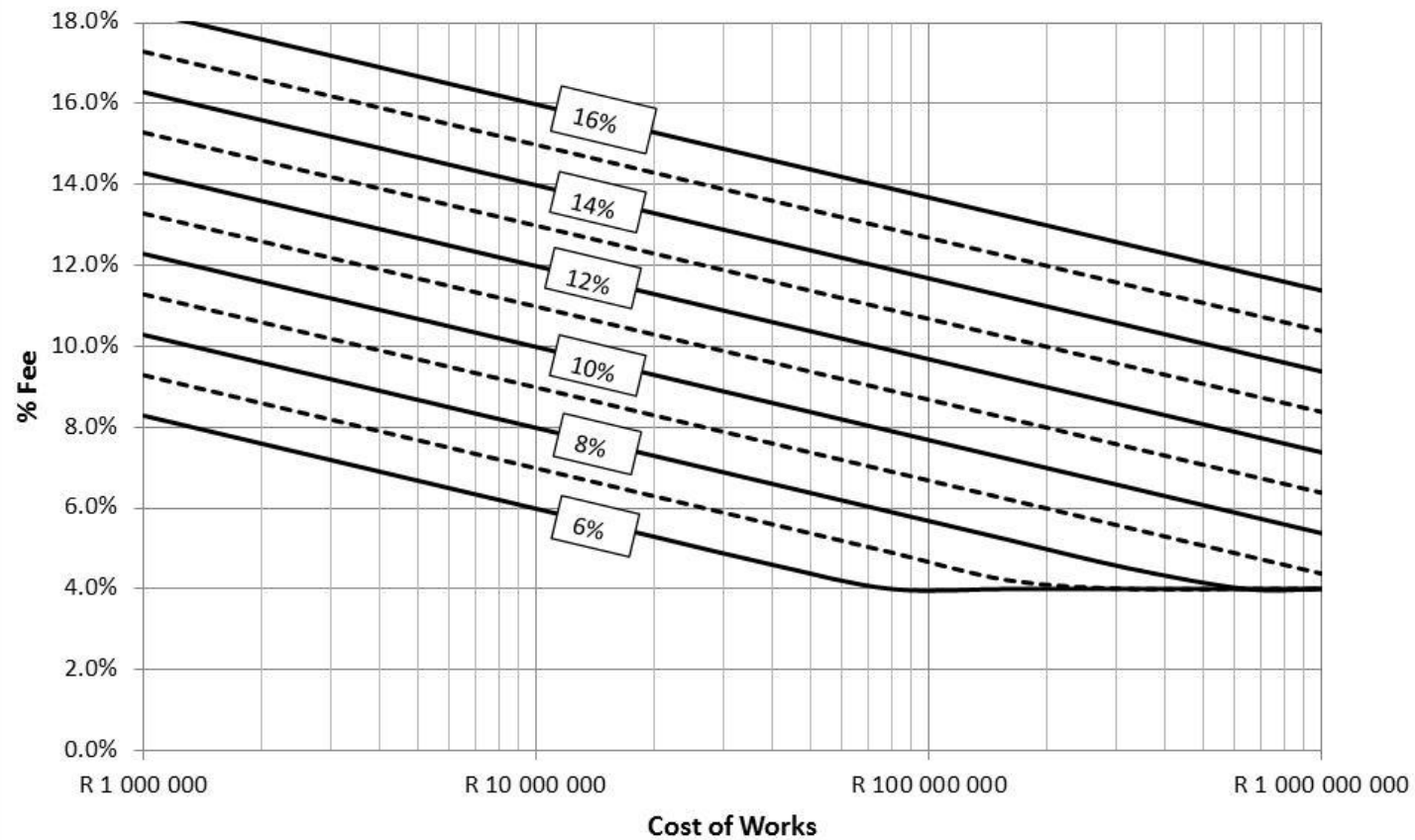
D3: OHS Audit Questionnaire

Refer to EXCEL file on CD

Appendix E: ECSA fee scale guidelines

PROJECT COST BASED FEES							
Project Type	Fee	Typical Lower Limit		Typical Upper Limit		Less Effort	More Effort
	Category	Based on a R10m Cost of the Works					
Road Rehabilitation	A	6%		8%		Relatively uniform condition and minimal road furniture and drainage improvements	Variable condition with many requirements iro road furniture and drainage improvements
Rural Road Expansion	B	7%		9%		Flat topography, few intersections and minimal obstructions and interfaces	Difficult topography with many accesses, intersections, interchanges and interfaces with existing infrastructure and utilities
New paved Rural Roads	A	6%		8%		Flat topography, few intersections and minimal obstructions and interfaces	Difficult topography with many accesses, intersections and interfaces with existing infrastructure and utilities
New and Improved Urban Roads	C	8%		10%			
New Rural Freeways	B	7%		9%		Flat topography, few interchanges and minimal obstructions and interfaces	Difficult topography with many accesses, intersections, interchanges and interfaces with existing infrastructure and utilities
New Urban Freeways	D	9%		11%			
Reinforced Concrete and Structural Steel:							
Minor Structures	C	8%		10%		Uniform foundations straight and rectangular	Variable foundations, complex geometry and load calculations
Storm-water structures and Canals	C	8%		10%			
Overpass and Freeway Bridges	E	10%		13%		Few load cases, uniform foundations, short, straight and rectangular spans	Many Load cases, seismic loads, variable foundations and complex geometry
River Bridges	F	11%		14%			
Unique Structures	E	10%		13%		Uniform foundations straight and rectangular	Variable foundations, seismic loads and complex geometry and load calculations
Street lighting	D	9%		11%		Uniform geometry and use of proprietary systems	Complex site with specialised lighting purpose designed from first principles
Communications, data and IT cabling systems	E	10%		13%		Use of proprietary systems with performance specification	Complex systems purpose designed

Typical Fee expressed as % of cost of the Works



Appendix F: Pro-forma report formats

The content and format of the report shall be in accordance with the Employer's standard requirements and shall include, but not necessarily be limited to, the following, as may be relevant:

- a) Locality Plan
- b) Executive Summary
- c) Introduction
 - Terms of reference
 - General description of the Project
 - Objectives and strategies
 - Scope of the investigations
- d) Road Cross-Section
 - Standard Cross-Section
 - National Road
 - Provincial Road
 - Municipal Road
 - Batter Slopes
- e) Existing pavement
 - Pavement history
 - Maintenance history
- f) Existing pavement evaluation
 - Visual condition survey
 - Instrument/mechanical surveys
 - Test pit information (Refer to SANRAL's Draft M1 (2004) Manual for Design Specialist's (Pavement and Materials Engineer) professional responsibilities and modus operandi)
 - Core profiles (Refer to SANRAL's Draft M1 (2004) Manual for Design Specialist's (Pavement and Materials Engineer) professional responsibilities and modus operandi)
 - DCP analysis
- g) Traffic information
 - Available data
 - Past traffic loading
 - Future traffic growth
 - Recommended design loading
 - Traffic accommodation considerations
- h) Structural analysis
 - Analysis of deflections
 - Assessment of deflection bowl parameters
 - Overlay structural analysis
- i) Geometric Design
 - National Road
 - Provincial Road
 - Municipal Road
- j) Structures (refer to specific requirements of Bridge Report in Structures in Code of Procedure)
- k) Hydraulic Capacity of Bridges and Major Culverts (refer to SANRAL's Drainage Manual 6th Edition) (latest version)
- l) Traffic Accommodation

All traffic deviations etc to accommodate existing traffic during the construction to be included in this chapter

- m) Ancillary works
All ancillary works over and above the main focus of the project should be included in this chapter e.g. sub-soil drainage, surface drainage, shoulder make up, road signs etc.
- n) Environmental and OHS obligations and considerations
- o) Summary of recommendations, including but not restricted to;
 - Geometric improvements
 - Capacity improvements
 - Structural options (Refer to Bridge Report in Structures C.O.P)
 - Intersection improvements
 - Interchange improvements
 - Safety improvements
 - Structures
 - Pavement design options
 - Any other alternatives
 - Cost benefit analysis
 - Climatic influences
- p) Construction materials (project/commercial and their appropriate application with respect to OH&S obligations) (Refer to SANRAL's Draft M1 (2004) Manual
 - Aggregate sources
 - Sand sources
 - Gravel sources
 - Fill material sources
 - Water sources
 - Bituminous products
- q) Estimated costs of alternative strategies
 - Construction programme
- r) Annexures
The Report shall also contain the following annexures where relevant:
 - Pavement analysis:
 - Summary of condition survey
 - Pavement evaluation sheets
 - Riding quality measurements
 - Deflection measurements
 - Deflection vs. rut depth analysis
 - FWD parameter analysis
 - Materials investigations: (Refer to SANRAL's Draft M1 (2004) Manual for Design Specialist's (Pavement) professional responsibilities and modus operandi)
 - Test pit profiles
 - Summary of test results
 - Analysis of cores
 - Existing binder property results
 - Texture depth and Ball Pen survey
 - Construction materials:
 - Test results summary
 - Materials designs
- s) Draft pricing schedule and cost estimate.
- t) Draft specifications differing from the COLTO Standard or Employer's pro-forma document.

Table 1: Economic Indicators Summary (Capital Projects Only)

Discount Rate	8%
Analysis Period	30 Years
Increase in Agency Capital Cost (Discounted)	R261 120 000
Savings in Motorised Vehicle Operating Costs (Discounted)	R831 070 000
Savings in Motorised Travel Time Costs (Discounted)	R213 040 000
Reduction in Accident Costs (Discounted)	R226 720 000
Net Present Value (Discounted, must be > 0)	R966 000 000
Net Present Value/Capital Cost Ratio (must be > 0)	3.699
Internal Rate of Return (must be > 12% @ 8% Discount)	21.3 %

Appendix G: Request for Survey Work

Refer to MS Word file on CD

Appendix H: Memorandums of Agreement

- H1 : Declaration of National Road through “Towns”**
- H2 : Hand-over of Access Roads Agreement between SANRAL
and relevant Local Authority**
- H3: : SPLUMA Agreement**

Refer to MS Word files on CD

Appendix J: 2nd Tier Procurement Procedure

Procurement of Sub-services

Second (2nd) tier procurement include the procurement of any work where either the work is not scheduled or priced, or where the process of procurement of the sub-Service Provider is by means of a prescribed 2nd tier pro-forma document provided by the Employer. It includes the procurement of work where rates have been omitted or where allowance for work is made under provisional sum or prime cost sum.

The following procurement methods is to be followed:

3. Where work is not scheduled but existing rates for similar work exist in the contract and the work can therefore be executed by the Service Provider or his Targeted Enterprise at existing rates.
-

No separate procurement process is required. The work is to be quantified and scheduled utilising existing rates and approved through the Works Authorisation process.

4. Where work is scheduled and the payment calculation is based on a formula specified in the contract document, or where the payment rate is pre-determined or fixed by the Employer.
-

No separate procurement process is required. The work is to be quantified and approved through the Works Authorisation process.

5. Where the supplier/sub-Service Provider is not selected by the Service Provider and actual cost is re-imbursable and no procurement process is possible.
-

No separate procurement process is required. The work is invoiced by supplier/sub-Service Provider on completion and approved through the Works Authorisation process at the end of the contract.

6. Where there are omitted items as part of the existing scheduled scope of work and no existing rates for similar work exist in the contract.
-

A proposal for a new rate shall be submitted by the Service Provider and evaluated by the Employer, by comparing with either adjusted relevant rates in the contract, or by comparing with similar rates on similar contract, or by comparing 3 (three) informal quotes to substantiate the rate. The new agreed rate is approved through the Works Authorisation process.

7. Where work is scheduled under a provisional sum or prime cost sum and the Employer prescribes a 2nd tier pro-forma either by quotation process or open tender process.
-

The work is to be procured by means of the 2nd tier pro-forma and approved through the Works Authorisation process.

8. Where work is scheduled under a provisional sum or prime cost sum and there is not a 2nd tier pro-forma available from the Employer and the estimated cost of the work is equal or less than R500 000.00.

A minimum of 3 (three) quotations shall be obtained from sub-Service Providers and approved through the Works Authorisation process.

The following is the minimum requirements for this process:

- b. Quotation to include form of quotation, CSD registration, tax compliance certificate/PIN number and an original or certified copy of the original B-BBEE certificate.
 - c. Quotations to be evaluated on price and preference.
- g) Where work is scheduled under a provisional sum or prime cost sum and there is not a 2nd tier pro-forma available from the Employer and the estimated cost of the work is more than R500 000.00.

The work is to be procured through an open tender and approved through the Works Authorisation process. The following is the minimum requirements for this process:

- d. Tenders to close at the office of the Employer.
 - e. Tender documents to include Form of Offer, CSD registration, tax compliance certificate/PIN number, an original or certified copy of the original B-BBEE certificate, SBD1, SBD4, SBD8, SBD9, SBD6.2 and Form A2.2.
 - f. Tenders to be evaluated on price and preference.
- h) The following list of items is exempted from the provisions of paragraphs (f) and (g) and an indication of the method or minimum requirements are given under "Procurement Requirements".

Item no	Description	Unit	Procurement Requirements
3.4.9(c)	Student stipend	Prov sum	Method (b)
3.4.10(b)	Review of tender documents	Prime cost	Method (b) or (d)
3.4.10(c)	Visit to construction site	Prime cost	Method (b) or (d)
3.4.11(a)	Personnel cost	Prov sum	Method (b) or (d)
3.4.14(a)	Services	Prime cost	Method (c)
3.6.1(b)	Hiring of venue, providing refreshments and coach	Prime cost	3 (three) quotations only
3.7.4(a)	Site supervision staff	Prov sum	Salaries to be agreed with Employer
3.7.4(f)	Project Liaison Officer	Prov sum	Salaries to be agreed with Employer
3.7.4(h)	Accommodation	Prov sum	3 (three) quotations only
3.7.5(c)	Student stipend	Prov sum	Method (b)
3.7.6(a)	Travelling to perform duties	Prov sum	Method (b)
3.7.6(c)	Toll fees	Prime cost	Method (c)
3.8.1(b)	Disbursements	Prime cost	3 (three) quotations only
3.8.4	Training of TE	Prov sum	Method (b)
3.8.6(b)	Liaison with PLC	Prov sum	Method (b) or (d)
3.8.6(c)	PLC stipend	Prov sum	Method (b)

Appendix K: Integrated Transport Information System

Integrated Transport Information System

ITIS Public User Registration

July 2018

Publication Details

Documentation Details

This document was developed for the South African National Road Agency (SANRAL). For content revisions, questions, or comments, contact the writer at itisissues@nra.co.za.

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Revision History

Revision	Description of Change	Author	Effective Date
0	Initial Release	K Niebuhr	July 2018

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Technical Support

For technical support please send an email to ITIS Support at itisissues@nra.co.za. The email needs to contain a short description of the problem in the Subject field. Please note that emails without a subject will be rejected. In the body of the email please describe your problem and provide your contact details.

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1. Registration

To register a new ITIS user, go to the ITIS website <https://itis.nra.co.za>

- i. Click on Register and accept the Term and Conditions and click on Next
- ii. Select Public User from the dropdown on the registration category screen. Click on Next

Register - Registration Category

Please select service provider or authority user

Registration Category

Public User

Service Provider: Any person who has authorisation to work for a relevant roads authority and is not a direct employee of the authority.

Authority User: Any person who is employed directly by a relevant roads authority. Please do not attempt to register here if you are not a direct employee as your registration will be declined.

Public User: Any person who is not employed directly by a relevant roads authority. Please do not register here if you are a direct employee.

Registration Category

Previous Next Close

Figure 1: Registration Category

- iii. Complete the User details form:

Register - User Details

e-Mail address

e-Mail address

Confirmation e-mail address

Confirmation e-mail address

Password

Password

Confirm password

Confirm password

Security Question

Please select

Security answer

Security answer

Name

Name

Surname

Surname

☒ I have a valid RSA ID number

User Details

Previous Next Close

Figure 2: User Details

- **E-Mail Address** - This email address will be used as your user name to access this website and the ITIS software. Each user must have their own email address and users will not be allowed to share an email address
- **Password** - This password will be required when trying to access the website and the ITIS software. The password must contain at least 1 UPPERCASE letter, 1 lowercase letter, 1 special character and 1 number
- **Security Question** - Select a security question from the dropdown. This question will be used for confirmation when resetting your password
- **Security Answer** - Enter the answer to the question selected above
- **Name** - Your name
- **Surname** - Your surname
- **Telephone Number** - Your telephone number at the office
- **Mobile Number** - Your mobile number
- **Fax Number** - Your Fax number

- Click on Next
- Enter the characters as seen on the Captcha Image and click on Register
- Clicking on Register will send a verification email to the email address you specified. Open the email and click on the email verification link.
- After a successful email verification, you should be able to Login

ITIS : User Account

New account

A request for access to <http://itisqa.nra.co.za/Portal/> was made:

User: Kallie Niebuhr

Organization: SANRAL

Product/s:

- Incident Capture - Module used for capture of Incident Data
- Project Info - Module used for capture of employment data
- RRM - Module used for the administration of routine road maintenance

[Click here](#) to verify your e-mail address.

Thanks,
The ITIS team

Figure 3: Verification Email

PART C5: ANNEXURES
