



**NEWCASTLE MUNICIPALITY
DEVELOPMENT PLANNING AND HUMAN SETTLEMENTS – ECONOMIC DEVELOPMENT**

TENDER NO.: A071-2023/24 RESEALING OF THE AIRPORT RUNWAY

CIDB CLASSIFICATION: 3CE OR HIGHER

SUBMISSION OF BID DOCUMENT DEADLINE

Date: Wednesday, 19 June 2024

Time: 12h00

Venue: Municipal Civic Centre Offices (Rates Hall)
Tower Block Building, 37 Murchison Street, 1st Floor
Newcastle, 2940

Name of the Tenderer	
CSD Master Registration number	
CIDB CRS number	
Physical Address	
Contact Person(s)	
Phone Number(s)	
E-Mail Address	
Total Tender Amount (VAT Inclusive)	

Sealed bid document must be deposited in the Tender Box provided at the Municipal Civic Centre (Rates Hall), 37 Murchison Street, Newcastle by no later than **12h00 on 19 June 2024** where bids will be opened in public. Please be advised that the name, address and contact details should be written at the back of the envelope.

CHECK-LIST FOR TENDER SUBMISSION

PLEASE ENSURE THAT THE FOLLOWING FORMS HAVE BEEN DULY COMPLETED AND SIGNED AND THAT ALL DOCUMENTS AS REQUESTED, ARE ATTACHED TO THE BID DOCUMENT:

Description	Completed		
Name of bidder and Contact Details	Yes		No
MBD 1: Invitation to Bid	Yes		No
Authority of Signatory	Yes		No
Compulsory Enterprise Questionnaire	Yes		No
Notice of Compulsory Briefing Session	Yes		No
Record of Addenda to Bid Documents	Yes		No
Proposed Amendments and Qualifications	Yes		No
Schedule of Proposed Sub-Contractors	Yes		No
Central Supplier Database Registration	Yes		No
Schedule of Plant and Equipment	Yes		No
Schedule of Previous Similar Works	Yes		No
Contractor's Certificate of Registration with CIDB	Yes		No
Tenderer's Financial Standing	Yes		No
Compliance with OHSA (Act 85 of 1993)	Yes		No
Declaration of Interest	Yes		No
Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022	Yes		No
Declaration of Bidders' Past Supply Chain Management Practices	Yes		No
Certificate of Independent Bid Determination	Yes		No
Certificate for Municipal Services and Payments/Lease Agreement	Yes		No
Form of Offer and Acceptance	Yes		No
Contract Data	Yes		No
Bill of Quantities	Yes		No

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PART T1

BIDDING PROCEDURES



T1.1 TENDER NOTICE & INVITATION TO BID

Tender number: A071/2023/24

Resealing Of the Airport Runway

The Newcastle Municipality seeks to appoint a contractor who will carry out work for the resealing of the runway at Newcastle Airport.

Tenderers should have an estimated CIDB contractor grading of at least **3CE or higher**.

Bid documents are obtainable from the office of the Strategic Executive Director: Budget and Treasury Office, Municipal Civic Centre Tower Block – Office B218 2nd Floor, 37 Murchison Street, Newcastle, 2940 during office hours between 08h00 to 15h00 upon a payment of a **non-refundable document fee of R 300.00**. **Alternatively, the document may be downloaded free of charge from the National Treasury website (www.etenders.gov.za).**

Banking Details - Banking Details - The Newcastle Municipality, Absa - Account No: **4110354347**, Br Code: **632 005** (the proof of payment must reflect the bid number and bidder's name as reference).

Procurement enquiries: Mr S Zwane

Telephone no.: 034 328 7625

Technical enquiries: Ms TP Mduna

Telephone no.: 034 328 7600

OR

Technical enquiries: Mr V Ngcobo

Telephone no.: 034 328 7600

Non- Compulsory Briefing Session	: Municipal Tower Block Building
	: 37 Murchison Street, Newcastle 2940
Venue	: Town Planning Boardroom – 4 th floor
	: Office no.: B401
Date	: Wednesday, 29 May 2024
Time	: 10h00

Bids will be adjudicated in terms of the Preferential Procurement Regulations, 2017 pertaining to Preferential Procurement Policy Framework Act, 5/2000 and other applicable legislations and will be based on 80/20 points system. Preference points will be awarded to service providers using their Specific Contract Participation Goals. This bid will remain valid for 120 days. The Council reserves the

right to accept all, some, or none of the bids submitted, either wholly or in part and it is not obliged to accept the lowest bid.

Completed bid documents complying with the conditions of bid must be sealed and endorsed **“Tender no.: A071-2023/24 Resealing Of the Airport Runway”** bearing the name and address of the bidder at the back of the envelope to be deposited in the official bid box provided in the foyer of Newcastle Municipality – Municipal Civic Offices (Rates Hall), 37 Murchison Street, 1st floor, Newcastle by no later than **12:00 on 19 June 2024** where bids will be opened in public.

Late quotations or tenders received by way of facsimile or e-Mail will under no circumstances be considered.

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

Minimum Local Content Requirements

Only locally produced goods, services or works or locally manufactured goods with a stipulated minimum threshold for local production and content will be considered.

Functional Evaluation

Only bids that comply with all administrative requirements (Acceptable Bids) will be considered during the functionality evaluation phase as stipulated under Tender Data on page 12 and thereafter the preferential point scoring system will apply in terms of Preferential Procurement Regulations, 2017.

Minimum functional requirement score: Service providers that submitted acceptable bids and that score at least **60%** on functionality will qualify for next stage of tender evaluation process which is tender ranking stage using Price and Preference (please refer to MBD 6.1).

Only prospective suppliers who are registered on the National Treasury Supplier database are legible to bid. To register on the CSD log onto www.csd.gov.za

**Mr Z MCINEKA
Municipal Manager
Newcastle Municipality
Municipal Civic Centre
37 Hardwick Street
Private Bag X6621
Newcastle
2940**

T1.2 MBD1: INVITATION TO BID

PART A

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE NEWCASTLE MUNICIPALITY

Bid Number	A071-2023/24	Closing Date	19 June 2024	Closing Time	12h00
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Description	Resealing Of the Airport Runway
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THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE
BID BOX SITUATED AT

**FIRST (1st) FLOOR OF THE NEWCASTLE MUNICIPALITY
MUNICIPAL CIVIC CENTRE OFFICES (RATES HALL)
37 MURCHISON STREET
NEWCASTLE
2940**

SUPPLIER INFORMATION

Name of Bidder					
Postal Address					
Street Address					
Telephone Number	Code		Number		
Cellphone Number					
Facsimile Number	Code		Number		
E-Mail Address					
Vat Registration Number					
Tax Compliance Status	TCS PIN:		OR	CSD No:	

Preferential points(80/20) or (90/10)	Price = 80 / 90	Preferent points = 20 / 10	Total = 100
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Specific Contract Participation Goals	20	10	Tick forclaim
Black people (Equity HDI's)	8	4	
Black people with disability	2	2	
Black people who are youth	2	1	
Black people who are women	4	2	
Locality (within Amajuba district)	4	2	
TOTAL HDI SCORE	20	10	

Total Number of Items Offered		Total Bid Price:	
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Signature of Bidder		Date:	
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Capacity under which this bid is signed:

ENQUIRIES MAY BE DIRECTED TO:

Bidding Procedure Enquiries		Technical enquiries	
Contact person	Mrs D Marais	Mr V Ngcobo	
Telephone number	034 328 7769	034 328 8611	
E-mail address	Dalene.Marais@newcastle.gov.za		
	or	or	
Contact person	Mr S Zwane	Mr V Ngcobo	
Telephone number	034 328 7818	034 328 8611	
E-mail address	siyabonga.zwane@newcastle.gov.za	Velile.Ngcobo@newcastle.gov.za	

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 online.</p> <p>1.3. This bid is subject to the Preferential Procurement Policy Framework Act and the Preferential Procurement Regulations, 2017, the General Conditions of Contract (GCC) or JBCC Series (2014, Edition 6.2) and, if applicable, any other special conditions of contract.</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 the Tax Compliance Status (TCS) certificate or Pin may also be made via e-filing. In order to use this provision, taxpayers will need to register with SARS as e-filers through the website www.sars.gov.za.</p> <p>2.4 Foreign suppliers must complete the Pre-Award Questionnaire in part B:3.</p> <p>2.5 Bidders may also submit a printed TCS certificate together with the bid.</p> <p>2.6 In bids where consortia / joint ventures / sub-contractors are involved, each party must submit a separate TCS certificate / Pin / CSD number.</p> <p>2.7 Where no TCS is available, but the bidder is registered on the Central Supplier Database (CSD), a CSD number must be provided.</p>
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS
<p>3.1. Is the entity a resident of the Republic of South Africa (RSA)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>3.2. Does the entity have a branch in the RSA? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>3.3. Does the entity have a permanent establishment in the RSA? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>3.4. Does the entity have any source of income in the RSA? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>3.5. Is the entity liable in the RSA for any form of taxation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <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 above.</p>

**NB: Failure to provide any of the above particulars may render the bid invalid.
No bids will be considered from persons in the service of the state.**

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:.....

DATE:

T1.2 TENDER DATA

NEWCASTLE MUNICIPALITY

The conditions of tender are the Standard Conditions of Tender as contained in **Annexure F of Standard for Uniformity in Construction Procurement (Board Notice 136 Government Gazette No 38960 of 10 July 2015)**, bound into Section T1.4 (see www.cidb.org.za)

The Standard Conditions of Tender makes 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 Conditions of Tender to which it mainly applies.

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

Clause Number	Tender Data
F.1.1 Actions	The employer is Newcastle Municipality
F.1.2 Tender Documents	<p>THE TENDER</p> <p>Part T1: Tendering Procedures</p> <p>T1.1 – Tender notice and invitation to tender</p> <p>T1.2 – MBD 1: Form</p> <p>T1.3 – Tender data</p> <p>T1.4 – Special Conditions of Tender</p> <p>Part T2: Returnable documents</p> <p>T2.1 – List of returnable documents</p> <p>T2.2 – Returnable schedules</p> <p>THE CONTRACT</p> <p>Part C1: Agreements and contract data</p> <p>C1.1 – Form of offer and acceptance</p> <p>C1.2 – Contract data</p> <p>C1.3 – Form of guarantee</p> <p>C1.4 – Health and safety agreement</p> <p>Part C2: Pricing Data</p> <p>C2.1 - Pricing Instructions</p> <p>C2.2 - Activity Schedule or Bills of Quantities</p> <p>C2.3 - Pricing Schedule (Firm and Non-Firm Prices)</p> <p>Part C3: Scope of work</p> <p>C3 – Scope of work</p> <p>Part C4: Site Information</p> <p>C4 - Site Information</p> <p>Part C5: Drawings</p> <p>C5 – Drawings</p>
F.1.3	Add the following new clause:
F.1.3.4	<i>The tender documents have been drafted in English. The contract arising from the invitation to tender shall be interpreted and construed in English.</i>
F.2.1 Eligibility Criteria	<p>Only those tenderers who are registered with the CIDB or are capable of being so prior to the evaluation of submissions, in a contract grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 3CE class of construction work, are eligible to submit tenders.</p> <p>Joint Ventures are eligible to submit tenders provided that:</p> <p>1. every member of a joint venture is registered with the CIDB.</p>

	<p>2. the lead partner has a contractor grading designation in the 3CE or higher of construction work; and</p> <p>3. The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor designation in accordance with the sum tendered for a 3CE or higher; class of construction works or a value determined in accordance with Regulation 25(1B) or 25(7A) of the CIDB.</p>
	<p>Only those tenderers who have in their full time employ management and supervisory staff satisfying the requirements of the scope of works for labour intensive competencies for supervisory and management staff are eligible to submit tenders.</p> <p>Only those tenders who score a minimum of 60% in respect of the following prequalification criteria are eligible to submit tenders. Refer to Part T1 (F3.11.3 Scoring quality)</p>
F.2.2 Cost of Tendering	The employer will not compensate the tenderer for any costs incurred in attending interviews or making any submissions in the office of the employer.
F.2.7 Clarification meeting	<p>The arrangements for a non-compulsory clarification meeting are as stated in the tender notice and invitation to tender.</p> <p>Attendance of the clarification/ site meeting is advised as it will be beneficial to bidders in understanding the scope of works</p>
F.2.9 Insurance	The Tenderer will be responsible for the full insurance cover required for this project.
F.2.12 Alternative offers	<p>If a Tenderer wish to submit an alternative Tender offer, the only criteria permitted for such alternative Tender offer is that it demonstrably satisfies the Employer's standards and requirements. Alternative offers may be submitted only if a main tender offer, strictly in accordance with all the requirements of the tender documents is also submitted.</p> <p>Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative Tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.</p> <p>Acceptance of an alternative Tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the Tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.</p> <p>Where necessary the modified Pricing Data must include an amount equal to 5% of the amount tendered for, the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.</p>
F.2.13.1	A two-envelope procedure will not be followed.
F.2.13.3 Submitting a tender offer	Parts of each Tender offer communicated on paper shall be submitted as original, plus 0 copies.
F.2.13.5	<p>THE IDENTIFICATION DETAILS ARE:</p> <p>Tender number: A071-2023/24</p> <p>Tender Description: Resealing Of the Airport Runway.</p> <p>Each tender shall be enclosed in a sealed envelope, bearing the correct identification details and shall be placed in the tender box.</p>

F.2.13.9	Telephonic, telegraphic, telex, facsimile or e-mailed offers will not be accepted
F.2.15 Closing time	The closing time for submission of tender offers is stated in the tender notice and invitation to tender.
F.2.16 Tender offer validity	The Tender offer validity period is 180 (one hundred and eighty) days.
F.2.18 Provide other material	The tenderer shall, when requested by the employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the labour intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.
F.2.20 Performance security/guarantee	The Tenderer shall provide a performance security/guarantee of 10% of the value of the tender before formation of the contract.
F.3.4 Opening of tender submissions	Tenders will be opened in public immediately after the closing time of tenders at 12:00.
F.3.11.3 Scoring quality	The procedure for the evaluation of responsive Tenders is Quality / Functionality will be scored as follows (maximum points = 100):

Statutory or Mandatory Requirement

1. A valid CIDB grading 3CE or Higher.

A tender must score a minimum of 60% out of the full points for quality / functionality in order to be eligible for further evaluation.

DETAILED BREAKDOWN OF QUALITY POINTS

Tenderers are required to list their relevant project experience. Relevant shall be defined as being within the past ten (10) years and works of a similar nature in respect of asphalt rehabilitation works which should preferably include, **but not limited to**, airport experience, National or Provincial Highways. Tenderers shall indicate only those projects that have been successfully completed. Letters of reference are required for the stated projects.

Up to a maximum of five (5) projects will be evaluated and scored per specified criteria. Zero points will be awarded if there are no projects listed under categories listed below. The points indicated refer to the maximum points a tenderer can score under each criterion. Tenderers shall be required to score a minimum score for each sub-item as indicated.

The projects will be evaluated on the basis of the above-described relevance as follows:

Functionality Evaluation Summary				
Description of Qualitycriteria	Form	Sub criteria	Maximum Score	Minimum Threshold
		Quality Score		
Asphalt Works	D1	Asphalt Work	50	24
Construction Plant and Equipment	D1	Construction Plant and Equipment	30	24
Contract Manager Qualifications and Experience	D2	Contract Manager Qualifications and Experience	10	6
Construction Manager Qualification and Experience	D3	Construction Manager Qualification and Experience	10	6
TOTAL			100	60

1. Asphalt Works (Max points 50, Min points 24)

(1) Asphalt Rehabilitation of Airport Runways or Airport Runways or National Highways or Provincial Highways. The work must include a milling operation. The contract values for this criterion (including VAT) is stated below:

- (a) R10 million or more.[10 Points per project, up to 5 projects]
- (b) R6 million to R9.9 million[3 Points per project, up to 5 projects]
- (c) R3 million to R5.9 million[2 Points per project, up to 5 projects]

Points will only be awarded if sufficient proof of the successful completion of the project is provided by means of a reference letters (from either the Client or Employer's Agent). The letter must indicate scope of work, contract value, contactable client or employer agent details and confirmation that the contractor's performance was satisfactory.

2. Construction Plant and Equipment (Max points 30, Min points 12)

The bidder must demonstrate that they own and/or able to lease all the All-critical plant and equipment required to execute the works: The criteria is as follows:

- (a) Paver
 - (b) Shuttle Buggy
 - (c) Milling Machine
 - (d) Drum Roller
 - (e) Pneumatic Roller
- Ownership of plant and equipment (Ownership documents) [6 Points per plant and equipment)
 - Hiring of all plant and equipment (Lease or Rental commitment) [4 Points per plant and equipment)
 - No ownership or hiring of all plant and equipment [0 Points)

Failure to provide proof of ownership or lease commitment for all the 5 plant and equipment will result in the bidder scoring 0.

Proof or Evidence to be provided:

Proof of purchase or letter of intent to lease from the owner of the construction of plant and equipment or lease agreement.

3. Contracts Manager qualifications and experience (Max points 10, Min points 6)

- a) Proof that the contract manager registration with ECSA as Pr.Eng or Pr.Tech or SACPCMP as a Professional Construction Project Manager or Professional Construction Manager and has in excess of 10 years relevant* work experience [10 points].
- b) Proof that the contract manager registration with ECSA as Pr.Eng or Pr.Tech or SACPCMP as a Professional Construction Project Manager or Professional Construction Manager and has less than 10 years relevant* work experience [6 points].
- c) None of the above is submitted (0 points)

*Relevant shall be defined as works of a similar nature in respect of asphalt rehabilitation works which should be Airport Runways or Airport Runways or National Highways or Provincial Highways.

Proof or Evidence to be provided:

Valid registration certificate as well as a CV

4. Construction Manager / Site Agent qualifications and experience (Max points 10, Min points 6)

- (a) Proof that Construction Manager / Site Agent has registration with ECSA as Pr.Eng or Pr.Tech or PR.Techni and in excess of 10 years relevant *work experience [10 points]
- (b) Proof that Construction Manager / Site Agent has registration with ECSA as Pr.Eng or Pr.Tech or PR.Techni and less than years relevant *work experience [6 points]
- (c) None of the above is submitted (0 points)

*Relevant shall be defined as works of a similar nature in respect of asphalt rehabilitation works which should be Airport Runways or Airport Runways or National or Provincial Highways.

Proof or Evidence to be provided:

Valid registration certificate as well as a CV

Points awarded during the above process WILL NOT be carried forward to the next stage of evaluation.

F.3.11.4 Preferential Point System

The financial offer will be scored using Formula 2 (option 2) where the value of W1 is:

- 1) 90 where the financial value inclusive of VAT of all responsive Tenders received have a value in excess of R 50 000 000; or
- 2) 80 where the financial value inclusive of VAT of one or more responsive Tenders offers equals or is less than R 50 000 000.

Up to 100 minus W1 Tender evaluation points will be awarded to Tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed.

Objective criteria

In terms of Preferential Procurement Regulation 11 and section 2(1) (f) of the Preferential Procurement Policy Framework Act, the following are the objective criteria:

- The risk of fruitless and wasteful expenditure to Newcastle Local Municipality;
- The risk of Irregular expenditure to Newcastle Local Municipality;
- The risk of poor project and contract management on existing project with Newcastle Local Municipality;
- The risk of an abnormally low bid; and
- The risk of a material irregularity.

The Municipality reserves a right to apply objective evaluation criteria should the recommended bidder pose any of the above-mentioned risks after assessment, Newcastle Local Municipality after ascertaining sufficient information will not make an award to the bidder exposing the Municipality to one or more of the above mentioned risks.

F.3.13 Acceptance of Tender Offer

Tender offers will only be accepted if:

1. The tenderer has complied in full with the all eligibility criteria;
2. A valid Tax Compliance Status Pin or CSD Master Registration Number for verification;
3. The **Form of Offer and Acceptance** is completed and signed;
4. The tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation.
5. The tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract;
6. The tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;
7. The employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.

	<ol style="list-style-type: none"> 8. The bid must adhere to pricing Instructions where the Bill o Quantities should be completed correctly and signed. 9. The bidder or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 person prohibited from doing business with the public sector; 10. The bidder has not: <ol style="list-style-type: none"> a. abused the Employer's Supply Chain Management System; or b. failed to perform on any previous contract and has been given a written notice to this effect; 11. The bidder has completed the Declaration of Interest and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract; 12. The bidder is registered on the Central Supplier Database; 13. The bidder is not in arrears for more than 3 months with municipal rates and taxes and municipal service charges. The latest municipal account is to be attached. The statement must not be older than three months from the closing date of this tender. Alternatively, if the tenderer is currently leasing premises and is not responsible for the payment of municipal services, a copy of the Lease Agreement must be attached. 14. A Joint-Venture Agreement or Consortium, where applicable, is submitted with bid; 15. All returnable schedules are to be completed and all relevant certificates attached where indicated.
F.3.17 Copies of Contract	<p>One signed copy of contract shall be provided by the Employer to the successful Tenderer.</p>
F.3.18 Rotation of Service Providers	<p>NOTE: The provision of the maintenance service shall be on an "as and required basis".</p> <ol style="list-style-type: none"> 1. Every effort shall be made to ensure that the maintenance work is spread evenly among the successful Bidders forming a panel. 2. The successful bidders will be required to accept the mid-range rates that will be used by all the successful bidders for the maintenance work required according to the Bills of Quantities. 3. In an event where the service provider responsible to render the maintenance is somehow unable to do so, that maintenance work shall be extended to the next service provider on the panel list. 4. The employer, through the relevant department and personnel shall draw up a schedule allocating maintenance work to the service providers in an equitable manner. 5. In case of emergency work, the work will be allocated to the service providers according to the drawn up schedule and their availability, based on a 2-hour response time. 6. The service provider not available or not in a position to execute the maintenance task will be expected to inform the employer in writing. 7. It remains the prerogative of the employer to allocate the work and ensure that it is evenly distributed among the service providers in a panel. 8. All the service providers shall be expected to comply with the schedule drawn up by the employer.

T1.4 STANDARD CONDITIONS OF TENDER

F.1 General

F.1.1 Actions

F.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

F.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note: (1) *A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.*

(2) *Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.*

F.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

F.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

F.1.3 Interpretation

F.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

F.1.3.2 These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

F.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

- a) **conflict of interest** means any situation in which:
 - (i). someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;

- (ii). an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - (iii). Incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.
- b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;
 - c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;
 - d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;
 - e) **organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body;
 - f) **functionality** means the measurement according to the predetermined norms of a service or commodity designed to be practical and useful, working or operating, taking into account quality, reliability, viability and durability of a service and technical capacity and ability of a tenderer.

F.1.4 Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

F.1.5 Cancellation and Re-Invitation of Tenders

F1.5.1 An organ of state may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.

F1.5.2 The decision to cancel a tender must be published in the Cidb website and in the government Tender Bulletin for the media in which the original tender invitation was advertised.

F.1.6 Procurement procedures

F.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to F.3.13, be concluded with the tenderer who in terms of F.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

F.1.6.2 Competitive negotiation procedure

F.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of F.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of

F.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

F.1.6.2.2 All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

F.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

F.1.6.2.4 The contract shall be awarded in accordance with the provisions of F.3.11 and F.3.13 after tenderers have been requested to submit their best and final offer.

F.1.6.3 Proposal procedure using the two stage-system

F.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

F.1.6.3.2 Option 2

F.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

F.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data and award the contract in terms of these conditions of tender.

F.2 TENDERER'S OBLIGATIONS

F.2.1 Eligibility

F.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

F.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the

qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

F.2.2 Cost of tendering

F2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

F2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

F.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

F.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

F.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

F.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

F.2.7 Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

F.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.

F.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

F.2.10 Pricing the tender offer

F.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT)), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.

F.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

F.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

F.2.12 Alternative tender offers

F.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

F.2.12.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

F.2.12.3 An alternative tender offer may only be considered in the event that the main tender offer is the winning tender.

F.2.13 Submitting a tender offer

F.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

F.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

F.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

F.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

F.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

F.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

F.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

F.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

F.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and, in the form, required, may be regarded by the employer as non-responsive.

F.2.15 Closing time

F.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

F.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

F.2.16 Tender offer validity

F.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

F.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

F.2.16.4 Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

F.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: *Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.*

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

F.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

F.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

F.2.20 Submit securities, bonds and policies

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

F.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

F.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

F.2.23 Certificates

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

F.3 THE EMPLOYER'S UNDERTAKINGS

F.3.1 Respond to requests from the tenderer

F.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

F.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

F.3.3 Return late tender offers

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

F.3.4 Opening of tender submissions

F.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its Specific Contract Participation Goals and time for completion for the main tender offer only.

F.3.4.3 Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.5 Two-envelope system

F.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

F.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on Specific Contract Participation Goals. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

F.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

F.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

F.3.8 Test for responsiveness

F.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

F.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

F.3.9 Arithmetical errors, omissions and discrepancies

F.3.9.1 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:

- 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:
 - (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.

F3.9.2 The employer must correct the arithmetical errors in the following manner:

- a) Where there is a discrepancy between the amounts in words and amounts in figures, the amount in words shall govern.
- b) 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 line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected.
- c) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern, and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

F.3.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

F.3.11 Evaluation of tender offers

F.3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

F.3.11.2 Method 1: Price and Preference

In the case of a price and preference:

- 1) Score tender evaluation points for price
- 2) Score points for Specific Contract Participation Goals
- 3) Add the points scored for price and Specific Contract Participation Goals.

F.3.11.6 Decimal places

Score financial offers, preferences and quality, as relevant, to two decimal places.

F.3.11.7 Scoring financial offers

Score the financial offers of remaining responsive tender offers using the following formula:

$$\text{NFO} = W1 \times A$$

where: NFO is the number of tender evaluation points awarded for price.

W1 is the maximum possible number of tender evaluation points awarded for price as stated in the Tender Data.

A is a number calculated using the formula and option described in Table F.1 as stated in the Tender Data.

Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 a	Option 2 a
1	Highest price or discount	$A = [1 + \frac{(P - P_m)}{P_m}]$	$A = P / P_m$
2	Lowest price or percentage commission / fee	$A = [1 - \frac{(P - P_m)}{P_m}]$	$A = P_m / P$
a P _m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.			

F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences. Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9 Scoring functionality

Score each of the criteria and sub-criteria for quality in accordance with the provisions of the Tender Data. Calculate the total number of tender evaluation points for quality using the following formula:

$$NQ = W2 \times SO / MS$$

where: *SO* is the score for quality allocated to the submission under consideration;
MS is the maximum possible score for quality in respect of a submission; and
W2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data.

F.3.12 Insurance provided by the Employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and/ or certificates of insurance which the conditions of contract identified in the contract data, require the Employer to provide.

F.3.13 Acceptance of tender offer

Accept the tender offer, if in the opinion of the Employer, it does not present any unacceptable

commercial risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the Employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,

- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the Employer, to perform the contract free of conflicts of interest.

F.3.14 Prepare contract documents

F.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the Employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the Employer and the successful tenderer.

F.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

F.3.16 Notice to unsuccessful tenderers

F.3.16.1 Notify the successful tenderer of the Employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the Employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

F.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the tender data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

F.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender, but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

F.3.19 Transparency in the procurement process

F.3.19.1 The CIDB prescripts require that tenders must be advertised and be registered on the CIDB i.Tender system.

F.3.19.2 The Employer must adopt a transparency model that incorporates the disclosure and accountability as transparency requirements in the procurement process.

F.3.19.3 The transparency model must identify the criteria for selection of projects, project information template and the threshold value of the projects to be disclosed in the public domain at various intervals of delivery of infrastructure projects.

F.3.19.4 The client must publish the information on a quarterly basis which contains the following information:

- Procurement planning process
- Procurement method and evaluation process
- Contract type
- Contract status
- Number of firms tendering
- Cost estimate
- Contract title
- Contract firm(s)
- Contract price
- Contract scope of work
- Contract start date and duration
- Contract evaluation reports

F.3.19.5 The employer must establish a Consultative Forum which will conduct a random audit in the implementation of the transparency requirements in the procurement process.

F.3.19.6 Consultative Forum must be an independent structure from the bid committees.

F.3.19.7 The information must be published on the employer's website.

F.3.19.8 Records of such disclosed information must be retained for audit purposes.



PART T2

RETURNABLE DOCUMENTS

T2.1: LIST OF RETURNABLE DOCUMENTS

The Bidder must complete the following returnable documents:

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T2.2 Returnable Documents

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A. AUTHORITY OF SIGNATORY

Indicate the status of the Bidder by ticking the appropriate box hereunder. The Bidder must complete the certificate set out below for the relevant category.

A COMPANY	B PARTNERSHIP	C JOINT VENTURE	D SOLE PROPRIETOR	E CLOSE CORPORATION

A. Certificate for Company

I,, chairperson of the board of, hereby confirm that by resolution of the board (copy attached) taken on 20....., Mr/Ms.....acting in the capacity of, was authorised to sign all documents in connection with this tender for **tender no.: A071 -2023/24** and any contract resulting from it on behalf of the company.

As witnesses:

1. Chairman:
.....
2. Date:

B. Certificate for Partnership

We, the undersigned, being the key partners in the business trading as, hereby authorise Mr/Ms, acting in the capacity of, to sign all documents in connection with this tender for **tender no.: A039 – 2021/22** and any contract resulting from it on our behalf.

Name	Address	Signature	Date

Note: This certificate is to be completed and signed by all key partners upon whom rests the direction of the affairs of the Partnership as a whole.

C. Certificate for Joint Venture

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Ms

authorised signatory of the company, acting in the capacity of lead partner, to sign all documents in connection with this tender for **tender no.: A071/2023/24** and any contract resulting from it on our behalf.

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the partners to the Joint Venture.

Name of Firm	Address	Authorising Name and Capacity	Authorising Signature
Lead Partner:			

NOTE: A copy of the Joint Venture Agreement indicating clearly the percentage contribution of each partner to the Joint Venture, is to be submitted with the bid. A board resolution, authorising each signatory who signed above to do so, is to be submitted with the bid.

D. Certificate for Sole Proprietor

I,, hereby confirm that I am the sole owner of the business trading as

As witnesses:

- 1. Sole Owner:
- 2. Date:

E. Certificate for Close Corporation

We, the undersigned, being the key members in the business trading as, hereby authorise Mr/Ms acting in the capacity of to sign all to sign all documents in connection with this tender for **tender no.: A071-2023/24** and any contract resulting from it on our behalf.

Name	Address	Signature	Date

Note: This certificate is to be completed and signed by all key partners upon whom rests the direction of the affairs of the Partnership as a whole.

B. COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of Enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name *	Identity Number *	Personal Income Tax Number *

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record in the services of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- | | |
|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> A member of any municipal council <input type="checkbox"/> A member of any provincial legislature <input type="checkbox"/> A member of the National Assembly or the National Council of Province <input type="checkbox"/> A member of the board of directors of any Municipal entity <input type="checkbox"/> An official of any municipality or municipal Entity | <ul style="list-style-type: none"> <input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act (Act 1 of 1999) <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity <input type="checkbox"/> an employee of Parliament or a provincial legislature |
|--|---|

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of Institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

* Insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

- A member of any municipal council
- A member of any provincial legislature
- A member of the National Assembly or the National Council of Province
- A member of the board of directors of any Municipal entity
- An official of any municipality or municipal Entity
- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

* Insert separate page if necessary

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise:

- (i) Authorises the Employer to obtain a tax clearance from the South African Revenue Services that my/our tax matters are in order;
- (ii) Confirms that neither the name of the enterprise nor the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- (iii) Confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- (iv) Confirms that I/we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- (v) Confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed: _____

Date: _____

Name: _____

Position: _____

Enterprise Name: _____

C. NOTICE OF BRIEFING SESSION

A compulsory briefing session is **not applicable**.

D. RECORD OF ADDENDA

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.

	Date	Title or Details
1.		
2.		
3.		
4.		

Attach additional pages if more space is required.

Failure to acknowledge any addendum released by Newcastle Municipality may result in your tender submission being declared non-responsive.

Name of Bidder			
Signature		Name (print)	
Capacity		Date	

E: PROPOSED AMENDMENTS AND QUALIFICATIONS

The Bidder should record any deviations or qualifications he may wish to make to the Bid documents in this Returnable Schedule. Alternatively, a Bidder may state such deviations and qualifications in a covering letter to his Bid and reference such letter in this schedule.

The Bidder's attention is drawn to clause F.3.8 of the Standard Conditions of Bid referenced in the Bid Data regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal

Signed _____

Date _____

Name _____

Position _____

Bidder

F: SCHEDULE OF PROPOSED SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

If we are awarded a contract we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

We confirm that all Subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor.
1.			
2.			
3.			
4.			
5.			

Signed **Date**

Name **Position**

Bidder

G. CENTRAL SUPPLIER DATABASE REGISTRATION

No awards will be made to a tenderer who is not registered on the Central Supplier Database (CSD).

The establishment of a Central Supplier Database (CSD) will result in one single database to serve as the source of all supplier information for all spheres of government. The purpose of centralising government's supplier database is to reduce duplication of effort and cost for both supplier and government while enabling electronic procurement processes.

Registration on the Central Supplier Database must be done online via the website:

<https://secure.csd.gov.za/>

Name of Bidder			
Signature		Name (print)	
Capacity		Date	

H: SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of major items of relevant equipment that I / we presently own or lease and will have available for this contract or will acquire or hire for this contract if my / our Bid is accepted.

(a) Details of major equipment that is owned by and immediately available for this contract.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

(b) Details of major equipment that will be hired or acquired for this contract if my / our Bid is acceptable.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed **Date**

Name **Position**

Bidder

I: SCHEDULE OF PREVIOUS SIMILAR WORKS

The following is a statement of similar work successfully executed by myself / ourselves:

Employer, contact person and telephone number.	Description of contract	Value of work inclusive of VAT (Rand)	Date completed

Signed

Date

Name

Position

Bidder

Signed

Date

Name

Position

Bidder

K: BIDDER'S FINANCIAL STANDING

The Employer may make enquiries to obtain a bank rating from the Bidder's bank.

To this end, the Bidder must provide with this Bid a bank rating, certified by his banker, to the effect that he will be able to successfully complete the contract at the bided amount within the specified time for completion.

However, should the bidder be unable to provide a bank rating with his Bid, he shall state the reasons as to why he is unable to do so, and in addition, provide the following details of his banker and bank account that he intends to use for the project.

Name of the Account Holder:

Name of Bank:

Branch Name:

Account Number:

Account Type:
.....

Branch Code:

Telephone number:

Fax number:

Name of contact person (at bank):
.....

Failure to provide either the required bank details or a certified bank rating with his Bid, will lead to the conclusion that the Bidder does not have the necessary financial resources at his disposal to complete the contract successfully within the specified/bided time for completion.

The employer undertakes to treat the information thus obtained as confidential, strictly for the use of evaluation of the Bid submitted by the Bidder

Signature of Bidder :

Date :

L: COMPLIANCE WITH OHSA (ACT 85 OF 1993)

Bidders are required to satisfy the Employer and the Engineer as to their ability and available resources to comply with the above by answering the following questions and providing the relevant information required below.

1.	Is the Contractor familiar with the OHSA (ACT 85 of 1993) and its Regulations?	Yes	No
2.	Who will prepare the Contractor's Health and Safety Plan? (Provide a copy of the person/s curriculum vitae/s or company profile).		
3.	Does the Contractor have a health and safety policy? (If yes, provide a copy). How is this policy communicated to all employees?	Yes	No
4.	Does the Contractor conduct monthly safety meetings? If yes, who is the chairperson of the meeting, and who attend these meetings?	Yes	No
5.	Does the Contractor conduct monthly safety meetings? If yes, who is the chairperson of the meeting, and who attend these meetings?	Yes	No
6.	Does the Contractor have a safety officer in his employment, responsible for the overall safety of his company? If yes, please explain his duties and provide a copy of his CV.	Yes	No
7.	Does the Contractor have trained first aid employees? If yes, indicate, who.	Yes	No
8.	Does the Contractor have a safety induction-training programme in place? (If yes, provide a copy)	Yes	No

Signed **Date**

Name **Position**

Bidder

M. MBD 4: DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.
3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1	Full Name of bidder/ Representative	
3.2	Identity Number	
3.3	Position occupied in the Company (director, trustee, shareholder²)	
3.4	Company Registration Number	
3.5	Tax Reference Number	
3.6	Tax Reference Number	

3.7. The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8	Are you presently in the service of the state*?	Yes	No
------------	---	-----	----

¹MSCM Regulations: "in the service of the state" means to be –

(a) a member of –

- (i) any municipal council;
- (ii) any provincial legislature; or
- (iii) the national Assembly or the national Council of provinces;

(b) a member of the board of directors of any municipal entity;

(c) an official of any municipality or municipal entity;

(d) an employee of 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);

(e) a member of the accounting authority of any national or provincial public entity; or

(f) an employee of Parliament or a provincial legislature.

²"Shareholder"^{""} means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

3.8.1	If yes, furnish particulars.		
3.9	Have you been in the service of the state for the past twelve months	Yes	No
3.9.1	If yes, furnish particulars.		
3.10	Do you, have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?	Yes	No
3.10.1	If yes, furnish particulars.		
3.11	Are you, aware of any relationship (family, friend, other) between a bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?	Yes	No
3.11.1	If yes, furnish particulars.		
3.12	Are any of the company's directors, managers, principal shareholders or stakeholders in service of the state?	Yes	No
3.12.1	If yes, furnish particulars.		
3.13	Are any spouse, child or parent of the company's directors, managers, principal shareholders or stakeholders in service of the state?	Yes	No
3.13.1	If yes, furnish particulars.		

3.14	Do you or any of the directors, trustees, managers, principal shareholders or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract.	Yes	No
3.14.1	If yes, furnish particulars.		

4. Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Employee Number

Name of Bidder			
Signature			

		Name (print)	
Capacity		Date	

N. MBD 6.1: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all bids invited.

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF EQUITY OWNERSHIP BY HISTORICALLY DISADVANTAGED INDIVIDUAL (HDI'S), AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022.

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
 - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable; or

- 1.2 Points for this bid shall be awarded for:
- (a) Price; and
 - (b) Specific contract participation goals, as specified in the attached forms.

- 1.3 The maximum points for this bid are allocated as follows:

		POINTS	
1. Price		80	90
2. Specific Contract Participation Goals		20	10
2.1 Historically Disadvantaged Individuals		16	8
2.1.1 Who had no franchise in national elections before the 1983 and 1993 Constitution (black people)	8 / 4		
2.1.2 Who is female	4 / 1		
2.1.3 Who has a disability and / or Youth	2 / 1		
2.1.4 Who is Youth	2 / 1		
2.2 Other Specific goals (Local Economic Development goals of the RDP)		4	2
2.2.1 Business operations within Amajuba District – rural development initiatives	4 / 2		
Total points for Price and HDI principles must not exceed		100	100

To claim specific goals listed under 2.2 above the Municipal water and light account in the name of the company or individual in case of Sole proprietor must be submitted.

- 1.4 Failure on the part of a bidder to submit proof of claim together with the bid, will be interpreted to mean that preference points for advancement of past imbalances are not claimed.
- 1.5 The purchaser or organ of the state reserves the right to require of a bidder or tenderer, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) “**tender for income-generating contracts**” means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 or 90/10

$$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \quad \text{or} \quad P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

- P_s = Points scored for price of bid under consideration
 P_t = Price of bid under consideration
 P_{\min} = Price of lowest acceptable bid

4. POINTS AWARDED FOR SPECIFIC CONTRACT PARTICIPATION GOALS

4.1 In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2 In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Category 1: Ownership - Historically Disadvantage Individuals by unfair discrimination (No franchise in elections before 1983 & 1993 Constitution)		16		
➤ Race		8		
➤ Female		4		
➤ Disability		2		
➤ Youth		2		

Category 2: Reconciliation and Development Programme (Government Gazette no.: 16085dated 23 November 1994)		4		
➤ Promotion of Local Enterprises (within Amajuba District: municipal & rural areas)		4		
TOTAL		20		

5. DECLARATION WITH REGARD TO COMPANY/FIRM

5.1 Name _____ of
company/firm:.....

5.2 VAT _____ registration
number:.....

5.3 Company _____ registration
number:.....

5.4 TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One person business/sole propriety
- Close corporation
- Company
- (Pty) Limited

[Tick applicable box]

5.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

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

5.6 COMPANY CLASSIFICATION

- Manufacturer
- Supplier
- Professional service provider
- Other service providers, e.g. transporter, etc.

[Tick applicable box]

5.7 I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific

goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

<p>WITNESSES</p> <p>1.</p> <p>2.</p>
--

<p>.....</p> <p>SIGNATURE(S) OF BIDDERS(S)</p> <p>DATE:</p> <p>ADDRESS</p> <p>.....</p> <p>.....</p>
--

O . MBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1. This Municipal Bidding Document must form part of all bids invited.
2. It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are to combat the abuse of the supply chain management system.
3. The bid of any bidder may be rejected if the bidder, or any of its directors have:
 - a. Abused the Municipality's Supply Chain Management System or committed any improper conduct in relation to such system:
 - b. Been convicted for fraud or corruption during the past five years:
 - c. Wilfully neglected, reneged or failed to comply with any government, municipal or public sector contract during the past five years; or
 - d. Been listed in the Register for Bid Defaulters in terms of section 29 of the Prevention and Combating of Corruption Activities Act (No 12 of 2004).

4. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

ITEM	QUESTION	YES	NO
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this database were informed in writing of this restriction by the Accounting Officer/ Authority of the institution that imposed the restriction after the audit alteram partem rule was applied).</p> <p>The database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the homepage.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		

4.2	Is the bidder or any of its directors listed on the Register for Bid Defaulters in terms of section 29 of the Prevention and Combating of Corruption Activities Act (No 12 of 2004)? (The Register for Bid Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
ITEM	QUESTION	YES	NO
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality/municipal entity, or any other municipality/municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality/municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.5.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) ____

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TO BE TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

Name of Bidder			
Signature		Name (print)	
Capacity		Date	

P. MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

1. This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - a. has been requested to submit a bid in response to this bid invitation;
 - b. could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - c. provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. 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 consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a) prices;
 - b) geographical area where product or service will be rendered (market allocation)
 - c) methods, factors or formulas used to calculate prices;
 - d) the intention or decision to submit or not to submit, a bid;

- e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. 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.
10. 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.

Name of Bidder			
Signature		Name (print)	
Capacity		Date	

³ **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.**

Q. PROOF OF GOOD STANDING WITH MUNICIPAL ACCOUNTS

MUST BE COMPLETED FOR THIS BID

Declaration in terms of paragraph 38(1)(d)(i) of the Supply Chain Management Regulation, irrespective of the contract value of the bid:

NB: Please note that this declaration must be completed by ALL bidders

- ii. I, the undersigned hereby declare that the signatory to this tender document; is duly authorised and further declare:
- iii. I acknowledges that according to SCM Regulation 38(1)(d)(i), the Municipality may reject the tender of the tenderer if any municipal rates and taxes or municipal service charges owed by the Tenderer or any of its directors/members/partners to Newcastle Municipality, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months.
- iv. I acknowledge that should it be found that any municipal rates and taxes or municipal charges as set out in (ii) above are in arrears for more than three (3) months, the bid will be rejected and the Newcastle Municipality may take such remedial action as is required, including the rejection of the bid and/or termination of the contract; and
- v. The following account/s of the bidding entity has reference:

Physical Business Address(es) of the Tenderer	Municipality	Municipal Account Number

NB: If insufficient space above, please submit on a separate page

PLEASE NOTE further that if no municipal rates and taxes or municipal charges are payable by the bidding entity, indicate the reason/s for that in the space below by means of a tick next in the relevant block,

Reason	Tick	Portfolio of evidence
Bidding entities who rent premises from a landlord		Signed copy of the lease agreement together with a letter from the landlord stating that no levies are in arrears.
Bidding entities who operate from a property owned by a director / member / partner		Municipal account statement/s of a director / member / partner
Bidding entities who operate from farms / informal settlements		A letter from their Induna/owner.
Bidding entities who operate from somebody else's property		Sworn affidavit stating the details and relationship with the property owner.
Other (Please specify)		

Attach latest municipal account statement behind this page. The portfolio of evidence must not be older than three months from the close of this tender.

SIGNED AT.....THIS.....DAY
OF..... 20.....

Name of Duly Authorised Signatory: (Please print).....

Authorised Signature:
.....

As witness: 1.

2.

Name of Bidder			
Signature		Name (print)	
Capacity		Date	



PART C1

AGREEMENT AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:

BID NO.: A071-2023/24 RESEALING OF THE AIRPORT RUNWAY 3CEOR HIGHER..

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the tender schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor 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 contract identified in the contract data.

THE OFFERED TOTAL PRICE INCLUSIVE OF VALUE ADDED TAX (VAT) IS

.....
.....

..... Rand (in words);

R..... (in figures) (or other suitable wording)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature		Date	
Name			
Capacity			
Name of Tenderer			

Name and Signature of

Witness Date

ACCEPTANCE (to be completed by the Employer)

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the tenderer the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer

and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1 Agreements and tender document, (which includes this agreement)
- Part C2 Pricing data
- Part C3 Scope of work
- Part C4 Site Information

and any drawings and documents or parts thereof, which may be incorporated by reference above.

Deviations from and amendments to the documents listed in the tender document and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the Record of Addendum attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule, which must be signed by the authorized representative(s) of both parties.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the tender document) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data at, or just after, the date this agreement comes into effect. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer within five days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

FOR OFFICIAL USE ONLY

Name		Signature	
Date		Signature	
Capacity(tick one)	Municipal Manager	Chief Financial Officer	
For the Employer	Newcastle Municipality		
Name of Witness		Signature	

SCHEDULE OF DEVIATIONS

Notes:

- 1. The extent of deviations from the tender documents issued by the Employer prior to 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 matter in 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 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 incorporated into the final draft of the Contract,

1. Subject:

Details:

.....

.....

2. Subject:

Details:

.....

.....

3. 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 the amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change 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, 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.

C1.2 CONTRACT DATA (PART 1)

All future works are subject to the following forms of contract

C1.4.1 Contract Specific Data

The Conditions of Contractor are the JBCC Series (2014, Edition 6.2) published by the Joint Building Contracts Committee Inc.

AND

The Conditions of Contract are THE General conditions of Contract for Construction Works (recently updated version of GCC) published by South African Institution of Civil Engineering (SAICE).

Copies of these General Conditions of Contract may be obtained from SAICE, Private Bag X200, Halfway House 1685, Telephone number: (+27) 011 805 5947, Web address: www.saice.org.za

The General Conditions of Contract for Construction Works make several references to the Contract Data. The Contract shall have precedence in the interpretation of any ambiguity or inconsistency between and the General Conditions of Contract.

Section 1: Data provided by the Employer

Clause	
	The "Commencement date" shall be the date at which the instruction works orders is issued to the contractor
	The Employer is the Municipality of Newcastle .
6.0	The principal agent is Technical Services. The SED – Technical services
	The employer's address for receipt of communication is: Telephone: (034) 328 7600 Address: Municipal Offices Civic Centre Private Bag X6621 Newcastle 2940
	The special nonworking days are public holidays, Saturdays and Sundays.
	The principal agent is required in terms of his appointment with the employer to obtain specific approvals from the employer for the all project related decisions.
	The Guarantee is to contain the same wording as the document included as C1.3 under returnable documents.
11.1.2	The amount of the Guarantee is to be 10% of the works order..
11.1.1	The Guarantee is to be delivered before the works is to be commenced.

12.2.17	The Works are to be commenced within 10 days of the Commencement Date.
12.2.6	The Works programme is to be delivered before the works is to be commenced.
	The amount to be included in the sum insured to cover the value of:
	<ul style="list-style-type: none"> a) No material will be supplied by the employer b) Professional fees not included in the contract price is – at the discretion of the employer
8.4	The limit of the liability insurance required is 10% of the value of works
10.1.1 – 10.1.3	The following additional and varied insurances are required: Public Liability Insurance, Supplementary Insurance and Contract Works Insurance
	All Day works will be calculated and agreed with the Project Manager.
	The works shall be completed within the approved construction period stated on the instruction letter issued by Newcastle Municipality
24.1	The penalty for delay is as stipulated in the JBCC Agreement series 2014 edition 6.2
	Contract Price Adjustment is not applicable in this contract.
	The percentage limit on materials not built into the Permanent Works is 80% of invoice.
11.3.1	The percentages retention is 10% of the work done (excluding VAT).
	Minimum amount of interim payment certificate is Nil.
11.3.1	A Retention Money Guarantee is permitted.
21.1	The Defects Liability Period is ninety (90) calendar days after final completion date or when work on the list for final completion has been satisfactorily completed (21.1), whichever is the later.
30.8	Disputes are to be referred to mediation, if not settled may be referred to a court having jurisdiction to handle such matters
	The contractor is
	The contractor's address for receipt of communication is: Telephone:Facsimile: E-mail:

	Address:
	TO NOTE THAT NO INTEREST WILL BE CHARGED/ ALLOWED ON LATE INTERIM PAYMENT CERTIFICATES.

Part 2: Data provided by the Contractor

The following information is to be completed by the Contractor and returned with the supporting information/documents if necessary to your tender after.

Description
<ul style="list-style-type: none"> The Contractor is the <i>[Enter the Legal name of the Contractor]</i>. <p>The Contractor's address for receipt of communications and notices is :</p> <p>Telephone:..... Facsimile:</p> <p>E-mail :</p> <p>Address (Postal) : Address (Physical) :</p> <p>.....</p> <p>.....</p>
<ul style="list-style-type: none"> The Subcontractor Fee percentage is% [NB: Subcontractor's claims to be attached on Contractor's claim]
<ul style="list-style-type: none"> The percentage allowance to cover all overhead charges is %
<ul style="list-style-type: none"> The key people are <p>(1)</p> <p>Name.....</p> <p>Job/Position.....</p> <p>Responsibilities.....</p> <p>Qualifications.....</p> <p>Experience.....</p> <p>(2)</p> <p>Name.....</p> <p>Job/Position.....</p> <p>Responsibilities.....</p> <p>Qualifications.....</p> <p>Experience.....</p>

Description

I/We, as the Contractor identified above, undertake to ensure that these key people will be available to perform the Works as it will be identified as and when required and to inform the Employer and submit the information of their replacement whose skills and qualifications will meet the requirements when necessary.

..... (Tenderer's Signature)

Risk Register

- Add "Additional risks into the Risk Register does not alter the allocation of risk contained in clause 80.1"

The following matters, if any, will be included in the Risk Register Part Two:

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C1.3 FORM OF GUARANTEE

NEWCASTLE MUNICIPALITY

Bid No
WHEREAS **The Newcastle Municipality** (hereinafter referred to as the Employer") entered into, a Contract with:

.....
(Hereinafter called "the Contractor") on the day of 20

A071-2023/24_RESEALING OF THE AIRPORT RUNWAY_3CEOR HIGHER..

AND WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of a guarantee for the due and faithful fulfilment of such Contract by the Contractor;

AND WHEREAS has / have at the request of the Contractor, agreed to give such guarantee;

NOW THEREFORE WE do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and excussion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and / or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the completion date of the works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the completion date which the Employer may make, give, concede or agree to under the said Contract.
2. This guarantee shall be limited to the payment of a sum of money.
3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.
4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.
5. Our total liability hereunder shall not exceed the Guaranteed Sum of
.....Rand (in words); R (in figures)
6. The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon our liability hereunder shall cease.

7. We hereby choose our address for the serving of all notices for all purposes arising here from as

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

IN WITNESS WHEREOF this guarantee has been executed by us at
..... on this day of 20

Signature

Duly authorized to sign on behalf of

Address
.....
.....

As witnesses:

1
Name **Signature**

2
Name **Signature**

C1.4 OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

This agreement is mandatory for all contractors appointed by The Newcastle Municipality or any other institution that do work for or on behalf of Municipality.

This agreement is between:

THE CONTRACTOR:

Herein represented by.....

In his capacity asBeing duly authorized hereto hereinafter referred to as "contractor".

Compensation Commissioner Number:.....

(Attach a copy of the Registration Certificate to this agreement)

Company : Name:.....

Registration Number:.....

CEO : Name:.....

ID Number:.....

Physical Address:.....

**And The Newcastle Municipality
(Hereinafter referred to as "the Council")**

1. DEFINITIONS

- 1.1 **CONTRACTOR** Means the "Contractor" as defined in the "Principal Contract" Annexed hereto in his capacity as mandatory.
- 1.2 **MANDATORY** Includes an agent, contractor or subcontractor for work to be done or service rendered, but without derogating from his status in his own right as an employer of people or user of equipment, machinery, tools or materials.
- 1.3 **THE PRINCIPAL CONTRACT** Means the contract annexed hereto as annexure "A".
- 1.2 **COUNCIL** Means the Newcastle Municipality
- 1.5 **RISK CONTROL OFFICER** A person appointed in writing by Council.
- 1.6 Any definitions contained in any Statute hereinafter mentioned shall have the meaning allocated to it by the specific statute.

2. OBJECTIVE

- 2.1 Whereas Council and the Contractor have entered into a contract for service (work) as fully indicated in the "Principle Contract" and whereas the "Contractor" agreed to indemnify Council against the risks stated hereunder whether foreseeable or not, and, whereas it is agreed between the parties that it is of cardinal importance to safeguard both Council and the Contractor's obligation in terms of relevant legislation as well as to extend the obligation as a company and/or legal person and/or person as an entity concerned with health, safety and the environment.
- 2.2 These rules are applicable to all contractors performing work for Council within the jurisdictional area of the Council and on any premises, which are owned, rented or developed by the Council.
- 2.3 The Council acts through those officials or persons who are generally or specifically charged with the responsibility, in terms of legislation, as well as any other official or person who is generally or specifically charged with the control and supervision of the project.

IT IS HEREBY AGREED AS FOLLOWS:

3. INDEMNITIES

- 3.1 The "Contractor" hereby indemnifies the "Council" against any loss in respect of all claims, proceeding, damages, costs and expenses arising out of any claim or proceeding pertaining to the non-compliance by the "Contractor" of any statutory requirements and/or requirements regarding the following Acts in particular pertaining to the provisions of:

The Occupational Health and Safety Act 85 of 1993 (as amended), including the Construction Regulations, 2003 as promulgated on 18 July 2003, in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), in Government Gazette No. 25207 and Regulation Gazette No. 7721. See Annexure B.

The Health Act 63 of 1977.

3.1.3 Road Traffic Act 29 of 1989 (as amended).

3.1.4 Environment Conservation Act 73 of 1989.

3.1.5 The National Water Act 36 of 1998.

3.1.6 The Criminal Procedure Act 51 of 1977.

3.1.7 The Explosives Act 26 of 1956.

3.1.8 The Arms and Ammunition Act 75 of 1969.

3.1.9 Compensation for Occupational Injuries and Diseases Act 130 of 1993.

3.1.10 The Labour Relations Act 66 of 1995.

3.1.11 The Unemployment Insurance Act 30 of 1966 (as amended).

3.1.12 The Basic Conditions of Employment Act 75 of 1997 (as amended).

3.1.13 Standards Act 29 of 1993.

3.1.14 any statutory provisions in any act and/or any law or bylaw of any local government and/or any published official standard incorporated into any statute or bylaw relating to the completion of the work set out in the "Principal Contract".

Any other health and safety standard prescribed by the "Council".

3.2 The "Contractor" shall ensure that he familiarizes himself with the requirements of the above legislation and that he, his employees and any subcontractor will comply with all the statutory provisions contained in them.

3.3 The "Contractor" shall indemnify the "Council" in respect of any physical loss or damage to any plant, equipment or other property belonging to the "Contractor" or for which he is responsible and he hereby indemnifies the "Council" against any loss in respect of all claims, proceedings, damages, costs and expenses consequent upon the loss of or damage to any plant, equipment or other property belonging to, or which is the responsibility of, any subcontractor, agent or employee of the subcontractor.

3.4 The "Contractor" shall and hereby indemnifies the "Council" against any liability, loss, claim or proceedings whatsoever, whether arising in common law or by statute, consequent on personal injuries to or the loss of health or death of any person whatsoever arising out of or in the course of or caused by the execution of the "Principal Contract".

3.5 The "Contractor" shall and hereby indemnifies the "Council" against any liability, loss, claim or proceedings consequent on loss of or damage to any movable or immovable property arising out of or in the course of or caused by the execution of the "Principal Contract" and due to any act or omission of the "Contractor", his agents, servants or subcontractors.

4. PERFORMANCE SAFE WORKING PRACTICE

4.1 The "Council" requires a high standard of safe work performance from all employees and expects that the standard be maintained by the "Contractor" within the "Council's" jurisdictional area or on its premises.

- 4.2 Irrespective of human considerations, the maintaining of these health and safety rules shall be the execution of the prescribed legal requirements. These rules are not to hinder the "Contractor" in rendering services or indemnify the "Contractor" from any legal responsibility to ensure healthy and safe work circumstances.
- 4.3 The "Council" shall assist the "Contractor" in any practical considerations to accommodate the healthy and safe execution of work and therefore require co-operation in the execution of these safety rules.

5. LOCK OUT PROCEDURE

- 5.1 When power or air driven machines or equipment, electrical apparatus or pipe lines are examined, repaired, adjusted, cleaned, lubricated or serviced in any other way than normal servicing, then all isolating switches, -levers, valves or appliances must be put in the "off" or "closed" position and locked.
- 5.2 Should more than one team work on a machine, then each person in control of a team, must put a separate lock on the switch, lever, valve or appliance.

6. CRANES, VEHICLES AND HOISTING

- 6.1 For each crane or hoisting equipment used, the "Contractor" must submit a valid and recent test certificate or other form of the last examination of the machine or equipment, to the "Council".
- 6.2 Only trained personnel with written permission and where determined by Law, with a valid driver's license, may be allowed to operate any electrical diesel or petrol driver overhead crane, hydraulic or electrical hoisting equipment, self-driven forklift, tractor or any other crane or vehicle. No employee of the "Contractor" may perform any overhead work or work on an overhead crane or hoisting equipment or work near cranes or crane rail, before:
- i) An agreement was concluded with the "Council".
 - ii) Approval has been obtained from the "Council" to perform the work.
 - iii) All applicable danger – and warning symbolic signs are put into position, or exemption, if applied for, is in operation.
- 6.3 The "Contractor" shall be wholly responsible for any loss or damage to cranes, hoisting equipment, plant, machines or equipment brought onto the work site by the "Contractor"

7. MACHINE VALANCES, PROTECTION AND FENCING

- 7.1 No machine valances, protection or fencing may be removed from machines, manholes, etc without the written permission of "Council" if applicable exemption procedures were not appropriated.

8. SCAFFOLD, LADDERS, TOOLS AND EQUIPMENT

- 8.1 No equipment or appliance belonging to "Council" may be used without written permission from "Council".

- 8.2 Unless prior arranged, "Contractors" must bring sufficient tools and equipment to the site to finish the contract, including offices and storerooms. The mentioned equipment remains the responsibility of the "Contractor" with respect to loss, damage and theft.
- 8.3 In exceptional cases, where tools and equipment belonging to "Council" are used to finish the contract, the said equipment and tools are used on own risk and the "Contractor" indemnifies "Council" from any claims that may arise. The said indemnity must be in writing, as well as information regarding the loan period, identification and condition of tools and equipment. The "Contractor" is responsible for the returning of said tools and equipment in the same condition or better. The "Contractor" is responsible to "Council" for any damage or excessive wear of such tools or equipment and material.

9. EXCAVATIONS

- 9.1 Before any excavations commence, written permission must be obtained from "Council" to confirm the location of existing electrical cables, water pipes, etc.
- 9.2 All excavations and obstructions in floor, tar and dirt surfaces must be fenced effectively and safeguarded between sundown and sunup with a sufficient amount of red/yellow warning lights and symbolic signs.
- 9.3 The surrounding area must be kept clean, safe and tidy during excavation. Excess material may not obstruct unnecessarily.
- 9.4 If any property is in danger during excavation, it must be supported and the proposed support work must be submitted to the Department of Labour (OHS) and "Council" for approval.
- 9.5 Written permission must be obtained from "Council" to grant admittance to restricted areas as well as areas where dangerous or poisonous gases are present.

10. FIRST AID

- 10.1 The "Contractor" must provide and maintain a first aid box equipped according to legal requirement where more than (5) five persons are employed. The first aid box must be in the care of a person with a competency certificate from one of the following organizations:
SA Red Cross Association;
St Johns Ambulance;
-SA First Aid League; or
A person or organization approved by the Chief inspector for this purpose.
- 10.2 A visible notice must be put up on any work premises with the name of the person responsible for first aid. In an emergency "Council's" Ambulance / Fire Department or emergency services may be contacted at (013) 262 5542.

11. FLAMMABLE LIQUIDS

The "Contractor" shall be held responsible for the necessary precautionary fire prevention measures. No smoking signs must be put up where applicable. The "Contractor's" employees must be informed of "Council's" fire prevention measures and evacuation procedures.

12. COMPENSATION BY CONTRACTOR

12.1 The "Contractor" shall be held responsible for all loss of and damage to property, the death or injury of persons, the resultant loss or damage suffered as well as all law suits, claims, costs, charges, fines and expenses due to negligence, violation of statutory liability or neglect of the "Contractor" or the "Contractor's" employees.

13. TRANSGRESSION OF RULES AND MISBEHAVIOUR

13.1 The "Contractor" is warned that any act(s) leading to damage or loss of employees of the "Contractor" or the "Council" shall not be tolerated. The "Council" may (without any reason) demand that any employee of the "Contractor" be withdrawn from the principal "Contract" or site.

14. INCIDENT REPORTING

14.1 All incidents referred to in Section 24 of the Occupational Health and Safety Act and or other incidents shall be reported, by the "Contractor", to the Department of Labour, as well as to the "Council" and should such an incident take place outside normal working hours, on a Saturday, Sunday or Public holiday provided with a written report relating to any incident.

14.2 The "Council" will obtain an interest in the issue of any formal inquiry conducted in terms of the Occupational Health and Safety Act in any incident involving the "Contractor" and/or his employees and/or his subcontractors.

14.3 The "Contractor" undertakes to report to "Council" anything deemed to be unhealthy and/or unsafe and that he undertakes to verse his employees and/or subcontractors in this regard.

15. LIAISON AND SUPERVISION

015.1 The "Contractor" hereby undertakes to liaise on a regular basis with the designated Risk Control Officer and "Council" representative regarding any hazards or incidents that may be identified or encountered during the performance of the "Principal Contract".

16. SERVICE INTERRUPTION

16.1 Should any work done by the "Contractor" cause a possible interruption, written permission must be obtained from "Council", before such work commences. The "Contractor" may not switch on or off any compressed air, steam, oxygen, vacuum supply or electrical supply without written permission from the "Council".

17. CONFIDENTIALITY

17.1 The "Contractor" and his employees shall regard all data, documentation and information of the contract and related documentation as confidential.

17.2 Lost documentation/plans or related documentation shall immediately be reported in writing to the "Council".

17.3 The "Contractor" shall not put up any advertisements or billboard at the site without permission.

17.4 The "Contractor" shall not take photographs of the contract site or part thereof or any work process or part thereof, without written permission from the "Council", or have photographs taken, published or let it be published.

18. CONTRACT SITE AND PRESERVATION

18.1 Employees of the "Contractor" shall not be allowed entrance to the site unless a valid identity document, issued by "Council", is displayed. The mentioned documents shall only be valid for a limited period, where after it must be renewed.

19. COMPLETION OF WORK

19.1 The "Contractor" or his employees shall not leave the contract site before the "Council" is satisfied that the contract is completed according to the requirements and standards set out in the contract and that the working site is left in a satisfactory and safe condition.

20. LIQUOR, DRUGS, DANGEROUS WEAPONS AND FIREARMS

20.1 The "Contractor" shall ensure that no liquor, drugs, dangerous weapons or firearms be brought onto the premises.

21. SEARCHES

21.1 The "Contractor" and any person engaged in the contract work may at any time be searched by "Council" appointed security personnel and all packages, suitcases, etc. must be presented to the access control point for examination prior to them being brought onto the property or leaving the property.

22. GENERAL CONDITIONS

22.1 Notwithstanding anything to the contrary in this agreement, it is hereby specifically determined that the "Contractor-"

22.1.1 shall have acquainted himself and be conversant with the contents of all statutory provisions applicable to the health and safety of workers and other persons on the site including the execution of the work, and in particular the conditions contained in the Occupational Health and Safety Act, 1993 (Act 85/1993), and the regulations promulgated in terms thereof, and shall comply therewith meticulously and in all aspects and/or take care that it is complied with;

22.1.2 shall be obliged to immediately execute all instructions given to him by an authorized representative of "Council" in order to ensure and uphold the implementation and enforcement of the provisions referred to in sub-paragraph 1, to the satisfaction of the said representative;

22.1.3 shall indemnify the "Council" against any or all liability which may be incurred by the "Council" as a result of the omission of the "Contractor", his employees, sub-contractors and/or representatives to comply with the provisions referred to in sub-paragraph 1, or to ensure that it shall be complied with;

22.1.4 shall undertake to pay upon demand any and/or all legal costs and other expenses which "Council" may have incurred as a consequence of any criminal charges or other proceedings pending against, or involving the "Council" as a result of the contravention or non-compliance by the "Contractor", his employees, sub-

contractors and/or representative of any of the statutory provisions referred to in sub-paragraph 1.

22.1.5 Should the "Contractor" neglect to immediately execute any health and safety written orders issued to him, or to his employee in charge of the works, in terms of the stipulations of sub-paragraph 2, the "Council" shall be entitled to suspend the execution of the works and take the necessary steps to execute or have such order executed. Under these circumstances the contractor shall be obliged to pay "Council", upon demand, all costs and expenses incurred by "Council", in order to execute or have the said orders executed.

22.1.6 Should the abovementioned steps not establish a healthy and safe work environment the "Council" will be entitled to terminate the contract without incurring any further costs or claims from the contractor?

23. "CONTRACTOR" IDENTIFICATION BOARD

23.1 The "Contractor" shall provide on any work premises a temporary identification board containing at all worksites the following information:

- Company name on behalf of which division/department the work is being done
- The contact number and name of the person representing the "Contractor"
- The contact number and name of the person representing "Council"

24. ACKNOWLEDGEMENT

24.1 The "Contractor" hereby acknowledges that he has read and received a copy of the "Principal Contract" and agrees to be bound by and undertakes to observe all the terms and conditions of the "Principal Contract". This appointment is made in terms of Section 37(2) of the Occupational Health and Safety Act, 85 of 1993.

25. EXCEPTIONS AND OMISSIONS

26. REMARKS

THE CONTRACTOR

SIGNED AT ON THIS DAY OF
.....

WITNESSES:

.....
THE CONTRACTOR

1.

2.

THE COUNCIL

SIGNED AT ON THIS DAY OF
.....

WITNESSES:

.....
THE COUNCIL

1.

2.



PART C2

PRICING DATA

C2.1 PRICING INSTRUCTIONS

NEWCASTLE MUNICIPALITY

1. Measurement and payment shall be in accordance with the relevant provisions of clause 8 of each of the SABS 1200 Standardised Specifications for Civil Engineering Construction referred to in the Scope of Work. The Preliminary and General items shall be measured in accordance with the provisions of SABS 1200-A, General.

2. The units of measurement described in the Bills of Quantities are metric units. Abbreviations used in these Bills of Quantities are as follows:

- % = percent
- h = hour
- ha = hectare
- kg = kilogram
- kl = kilolitre
- km = kilometer
- km-pass = kilometre-pass
- kP = kilopascal
- kW = kilowatt
- l = litre
- m = metre
- mm = millimetre
- m² = square metre
- m²-pass = square metre-pass
- m³ = cubic metre
- m³-km = cubic metre-kilometre
- MN = meganewton
- MN.m = meganewton-metre
- MPa = megapascal
- No. = number
- Prov sum = Provisional sum
- PC sum = Prime Cost sum
- R/only = Rate only
- Sum = lump sum
- T = ton (1000 kg)
- W/day = Work day

3. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

4. The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.

5. It will be assumed that prices included in these Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards)

6. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered such items

7. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.

8. The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.

9. Reasonable compensation will be received where no pay item appears in respect of work required in the Bills of Quantities in terms of the Contract and which is not covered in any other pay item.

10. The short descriptions of the items of payment given in these Bills of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.

11. Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the SABS 1200 Standardised Specifications.

12. The item numbers appearing in the Bills of Quantities refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).

C2.2 BILL OF QUANTITIES

THE RESEALING OF THE AIRPORT RUNWAY					
BILL OF QUANTITIES					
Item	Description	Unit	Scheduled Quantity	Rate	Amount
1200	GENERAL REQUIREMENTS AND PROVISION				
B12.01	Excavation				
	Excavating material within the following depth ranges below the ground level for exposing or for searching for services:				
	(a) Depth 0-2m				
	(i) Soft material	m ³	30		
	(ii) Hard material	m ³	15		
	(b) Extra-over B12.01 for excavation by means of hand tools such as picks, crowbars and pneumatic tools or mechanical breakers in close vicinity of services where no machine excavation is permitted.				
	(i) Soft material	m ³	30		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(ii) Hard material	m ³	15		
B12.02	Backfilling				
	(a) Using the excavated material and compacting to 90% MOD AASHTO Density	m ³	30		
	(b) Using the imported material and compacting to 90% MOD AASHTO Density	m ³	15		
B12.03	Relocation/protection of existing services				
	(a) Allow a provisional sum for existing services to be relocated and /or protected as ordered by the Engineer.	Prov Sum	1	R 7 500,00	
	(b) Handling costs and profit in respect of Sub-item B12.03(a).	%	7500		
B12.04	Control of dust and FOD pollution at all work areas including, haul and site	Lump sum	1		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	access roads and campsite/site offices				
B12.05	Airside Induction courses and permits				
	(a) Actual cost for attaining permits	Prov Sum	1	R 15 000,00	
	(b) Contractors charge in respect of item 12.03(a) above	%	15000		
B12.06	Penalty to be deducted for non- compliance with requirements for accommodation of traffic as set out in contract documentation				
	(a) Fixed penalty per occurrence	No		R -5 000,00	
	(b) Time related penalty	hr		R -5 000,00	
TOTAL CARRIED FORWARD TO SUMMARY					
1300	CONTRACTOR'S ESTABLISHMENT ON SITE				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	AND GENERAL OBLIGATIONS				
13,01	Contractor's general obligations				
	(a) Fixed obligations	LS	1		
	(b) Value-related obligations	LS	1		
	(c) Time-related obligations	Month	2		
B13.02	Supply, transport to site and erection of the signboard	No	2		
B13.03	Provision of lump sum to comply with the requirements of the health and safety specifications				
	(a)Contractors initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	LS	1		
	(b)Contractors time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Month	2		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(c)Provision of full time construction safety officer	Month	2		
	(d)Submission of Health and safety file	Lump sum	1		
	(e) Penalty for non-compliance with Environmental Specifications	No		R -5 000,00	
B13.04	Compliance with Environmental Specification				
	(a) Provision of lump sum to comply with the requirements of the General Compliance with Environmental Specifications	LS	1		
	(b)Time related obligations to comply with the requirements of the enviromental specifications.	Month	2		
	(c) Penalty for non-compliance with Environmental Specifications	No		R -5 000,00	
	<u>PLEASE NOTE:</u>				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	The combined total tendered for sub-item(a) and (c) shall not exceed 15% of the Bid Price Less allowances for Dayworks, allowance for Rate Only Items, Contract Price Adjustment , Contingencies and Value Added Tax.				
TOTAL CARRIED FORWARD TO SUMMARY					R -
1400	HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL				
14,01	Office and laboratory accommodation				
	a) Office (interior floor space only)	m ²	6		
	e) Ablutions units	m ²	2		
14,02	Office and laboratory furniture				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	a) Chairs	No	12		
	d) Desks, complete with drawers and locks	No	2		
	(c) Conference tables	No	1		
B14,03	Provison for communication for Engineer's personnel during construction:				
B14.11	Provision of Surveyor on Request by engineer:				
	(a) Wages, salaries and allowances	Prov Sum	1	R 15 000,00	
	(b) Handling costs and profit in respect of B14.11(a)	%	15000		
B14.13	(a) Provision of in service training student	Prov Sum	1	R 15 000,00	
	(b) Handling cost and profit in respect of B14.13(a)	%	15000		
	(c) Provision of CLO	Prov Sum	1	R 10 000,00	
	(d) Handling costs and profit in respect of B14.13(c)	%	10000		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	Engineers accomodation and necessities	Prov Sum	1	R 15 000,00	
TOTAL CARRIED FORWARD TO SUMMARY					
1500	ACCOMMODATION OF TRAFFIC				
15,01	Accomodating traffic and maintaining temporary deviations	km	0,5		
15,03	Temporary traffic control facilities:				
	(a) Flagmen	Man-day	180		
	(b) Portable STOP and GO-RY Signs.	No	8		
	(e) Road sign R and TR-series (1200mm)	No	12		
	(f) Road Signs, TW-Series (1200mm)				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(1) Triangular				
	(i) 1500mm long sides	No	2		
	(ii) 1500mm long sides	No	2		
	[TW 305 + TIN 11.3]				
	(ii) 1500mm long sides	No	2		
	[TW 336 + TIN 11.3]				
	(2) Rectangular				
	(i) 1200mm x 1600mm long sides	No	2		
	[TW 336 + TIN 11.3]				
	(h) Delineators TW 401/TW402(DTG 50J)				
	(1) Single	No	10		
	[200mm wide x 1000mm high]				
	(n) Provision of high visibility safety jackets and safety hats.	No	6		
B15.04	Relocation of traffic control facilities	Sum	1		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
15.05	Gravelling and repair of temporary deviations and existing gravel shoulders used as temporary deviations				
	(a) Temporary deviations	m ³	100		
15,06	Watering of temporary deviations	kl	1000		
15.14	Allow provision for :				
	(a) Repair of damaged temporary road signs and delineators.	Prov Sum	1	R 9 500,00	
	(d) Handling costs and profit in respect of 15.14(a)	%	9500		
TOTAL CARRIED FORWARD TO SUMMARY					
1700	CLEARING AND GRUBBING				
17,01	Clearing and grubbing	ha	0,12		
17.02	Removal of topsoil to windrows and/or temporary stockpiling at				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	designated locations outside strip areas (unlimited free- haul)				
	(i) Topsoil in windrows alongside the work	m ³	150,0		
17,03	Re-clearing of surfaces(on the written instruction of the Engineer only).	ha	0,1		
17,04	Clearing and grubbing at inlets and outlet of drainage structures:	m ²	80		
17,05	Clearing of hydraulic structures				
	(a) Pipes with internal diameter up to 750mm.	m ³	50		
	(b) Pipes with internal diameter exceeding 750mm.	m ³	1		
	(c) Box culverts exceeding 1.5m vertical dimension	m ³	1		
TOTAL CARRIED FORWARD TO SUMMARY					
B 1800	DAYWORKS				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
B 18.01	Personnel during normal working hours				
	(a) Unskilled labour	Hr	20		
	(b) Semi-skilled labour	Hr	20		
	(c) Ganger	Hr	15		
	(d) Flagmen	Hr	15		
	(e) Foreman	Hr	15		
B 18.02	Plant				
	(a) Grader (CAT 140G or Similar).	Hr	12		
	(d) Track Excavator (CAT 235 or similar).	Hr	12		
	(e) Vibratory Roller (BOMAG 212 or Similar).	Hr	12		
	(f) Pedestrian Roller(Bomag BW 90 or Similar)	Hr	12		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(g) Water Truck(5000litres)	Hr	12		
	(h) Tipper Truck(10m ³)	Hr	12		
	(i) Backhoe TLB (CAT 428 or equivalent).	Hr	12		
	(j) Dewatering pump including generator and accessories (50mm pump, 600 l/m)	Hr	12		
TOTAL CARRIED FORWARD TO SUMMARY					
1900	MECHANICAL SAW CUTTING				
B19.01	Establishment of suitable saw cutting machine on site.	no	1		
B19.02	Saw-cutting of insitu materials				
	(i) Bituminous materials including single and double seal surfaces, slurry seals and cape seal, and potholes/failure patches (excluding asphalt surfacing 10mm to 60mm deep).	m	300		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(ii) Cemented gravel material (up to 350mm deep).	m	300		
TOTAL CARRIED FORWARD TO SUMMARY					
3300	MASS EARTHWORKS				
33,01	Cut and borrow to fill, including free-haul up to 1 km				
	(a) Gravel material in compacted layer thickness of 200mm and less				
	(i) Compacted to 93% of modified AASHTO Density	m ³	15		
33,03	E.O. item 33.01 for excavating and breaking down material in:				
	a) Intermediate excavation	m ³	2		
33,04	Cut to spoil, including free-haul up to 10 km Material obtained from				
	(a) Soft excavation	m ³	150		
	(b) Hard excavation	m ³	15		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(c) Boulder excavation	m ³	7,5		
33,07	Removal of unsuitable material (including freehaul of 10km)				
	(a) In layer thicknesses of 200 mm and less				
	(1) Stable material	m ³	15		
	b) In layer thickness exceeding 200mm				
	i) Stable material	m ³	45		
33,09	Material bladed to windrow	m ³	7,5		
33,11	Three roller pass compaction	m ²	7,5		
33,12	Insitu treatment of roadbed				
	(a) Insitu treatment by ripping	m ³	15		
33,13	Finishing off cut and fill slopes, medians and interchange areas:				
	a) Cut slopes	m ²	30		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	b) Fill slopes	m ²	30		
	Overhaul on material hauled in excess of 0.5 km. (ordinary over haul)	m ³ .km	300		
TOTAL CARRIED FORWARD TO SUMMARY					
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL				
B34.01	Pavement layers constructed from taken from commercial source:				
	(a) Gravel sub base G5 or better for C4 compacted to:				
	(ii) 98% of modified AASHTO density (150mm thick)	m ³	30		
	(b) Gravel selected layer G7 (150mm thick) compacted to:				
	(i) 97% of modified AASHTO density .	m ³	30		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
34,04	In situ reconstruction of existingt pavement layers as				
	(c) Gravel selected layer(150mm) compacted to 95% modified AASHTO Density.	m ³	1		
34/16.02	Overhaul on material hauled in excess of 1.0 km. (ordinary overhaul)	m ³ .km	300		
	<i>ALLOW FOR SELECTION, STOCKPILING AND BREAKING-DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS AND PLACING AND COMPACTING THE GRAVEL LAYERS(SECTION 3200).</i>				
34/32.05	Add normal grid rolling	m ³	50		
34/32.06	Stockpiling of materials	m ³	50		
TOTAL CARRIED FORWARD TO SUMMARY					
3500	STABILIZATION				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
35.01	Chemical stabilisation(125mm thick) extra over unstabilized compacted layers:				
	(a) Lower subbase	m ³	1		
	(b) Upper subbase	m ³	200		
35,02	Chemical Stabilizing Agent:				
	(a) Ordinary Portland cement 3%	t	1		
35,04	Provision and application of water for curing.	kl	2		
35,05	Curing by covering with a subsequent layer (immediate placing by Engineer's Instruction).	m ²	200		
B35,14	Stabilized layer trial section constructed by:				
	(a) Normal/conventional methods				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(i) Cement stabilization of subbase(125mm thick).	m ³	15		
TOTAL CARRIED FORWARD TO SUMMARY					
3600	CRUSHED-STONE BASE				
B36.01	(d) Construct from type G2 material obtained from commercial sources and compacted to 98% apparent density, layer thickness 100mm.	m ³	10		
36.03	Crushed stone base trial section(100mm thick) constructed in accordance with the provision of Clause 3603.	m ³	5		
TOTAL CARRIED FORWARD TO SUMMARY					
3800	BREAKING UP EXISTING PAVEMENT				
B38.01	Milling out existing bituminous material with an average milling depth:				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(b) Material to be disposed of with the average depth of excavation				
	(ii) Exceeding 30mm but not exceeding 60mm.	m ³	198		
			.		
	(iii) Exceeding 60mm	m ³	10		
B38.04	Excavating and spoiling material from an existing pavement and/or the underlying fill				
	(a) Non-cemented material	m ³	100		
	(b) Cemented material	m ³	35		
38/16.02	Overhaul on material hauled in excess of 1.0 km. (ordinary overhaul)	m ³ .km	2000		
TOTAL CARRIED FORWARD TO SUMMARY					
3900	PATCHING AND REPARING EDGE BREAKS				
39.01	Sawing asphalt or cemented pavement layers for patching				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(a) Sawing asphalt to an average depth				
	(i) Not exceeding 50mm	m ³	30		
	(ii) Exceeding 50mm	m ³	30		
	(ii) Exceeding 100mm	m ³	30		
39.02	Excavating in existing pavements for patching in:				
	(c) Other layers (non-cemented layers).	m ³	15		
39.03	Backfilling of excavation for patching with:				
	(a) Chemically stabilised pavement material(subbase quality material excavated from the existing road or imported from a borrow pit and stabilised with cement(CEM 1:SABS ENV 197-1 Standard Specification, compacted to 975 Mod AASHTO Density) for a patch w				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(i) Not exceeding 5m ²	m ³	1		
	(ii) Exceeding 5m ² , but not exceeding 100m ²	m ³	20		
	(iii) Exceeding 100m ²	m ³	1		
TOTAL CARRIED FORWARD TO SUMMARY					
4100	PRIME COAT				
41,01	Prime coat:				
	(c) MC-30 cut back bitumen (0.75l/m ²)	m ²	4500		
41,03	E.O. item 41.01 for applying the prime coat in areas accessible only by hand held equipment	m ²	1000		
TOTAL CARRIED FORWARD TO SUMMARY					
4200	ASPHALT BASE AND SURFACING				
42,02	Asphalt surfacing:				

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
	(a) Stone Mastic Asphalt Surfacing	t	545		
42,04	(a) Tack coat of 30% stable-grade emulsion (0.55l/m ²)	ℓ	3300		
	(b) E.O. item 41.01 for applying the prime coat in areas accessible only by hand held equipment	ℓ	200		
42,05	Binder variations				
	(a) Penetration grade binders				
	(i) 50/70 Penetration grade bitumen	t	0		RATE ONLY
	(ii) 10/20 Penetration grade bitumen	t	0		RATE ONLY
	(iii) A-E2 modified bitumen	t	0		RATE ONLY
	(iv) A-P1 modified bitumen	t	0		RATE ONLY
42,06	Variations in active filler content:				
	(a) Cement	t	0		RATE ONLY
	(b) Lime	t	0		RATE ONLY

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
42,07	100mm cores in asphalt paving	No	10		
TOTAL CARRIED FORWARD TO SUMMARY					
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS				
59,01	Finishing the road and road reserve:				
	(b) Single carriageway road	km	0,4		
TOTAL CARRIED FORWARD TO SUMMARY					
8100	TESTING MATERIALS AND WORKMANSHIP				
	Other special tests requested by the engineer: Combined commercial laboratory testing				
81,02					
	(a) Cost of testing	Prov Sum	1	R 15 000,00	
	(b) Charge on Prime cost sum	%	15000		

THE RESEALING OF THE AIRPORT RUNWAY

BILL OF QUANTITIES

Item	Description	Unit	Scheduled Quantity	Rate	Amount
TOTAL CARRIED FORWARD TO SUMMARY					

**NEWCASTLE LOCAL MUNICIPALITY
THE RESEALING OF THE AIRPORT RUNWAY
CONTRACT No:**

SUMMARY OF SCHEDULES

1200	GENERAL REQUIREMENTS AND PROVISION
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS
1400	HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL
1500	ACCOMMODATION OF TRAFFIC
1700	CLEARING AND GRUBBING
1800	DAYWORKS
1900	MECHANICAL SAW CUTTING
3300	MASS EARTHWORKS
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL
3500	STABILISATION
3600	CRUSHED STONE
3800	BREAKING UP EXISTING PAVEMENT
3900	PATCHING AND REPAIRING EDGE BREAKS
4100	PRIME COAT
4200	ASPHALT BASE AND SURFACING
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS
8100	TESTING MATERIALS AND WORKMANSHIP

TOTAL OF SCHEDULE OF QUANTITIES **R**

CONTEGENCIES 5% **R**

CALCULATION OF TENDER SUM

TOTAL OF SCHEDULE OF QUANTITIES **R**

VALUE-ADDED TAX (VAT)

The Tenderer shall add 15% of the subtotal for value-added tax **R**

TOTAL **R**

SIGNED ON BEHALF OF TENDERER :



PART C3

SCOPE OF WORK

C3 SCOPE OF WORKS

C3.1 EMPLOYER'S OBJECTIVES

The employer's objective is to appoint a contractor for the rehabilitation of the runway at Newcastle Airport

C3.2 SCOPE OF THE WORK TO BE DONE

The work to be performed under this contract comprises mainly the rehabilitation of the runway at Newcastle Airport to the distance of 350 m x 21 m.

OVERVIEW OF THE WORKS

The following aspects will be addressed in this project:

- a) The rehabilitation of airport runway with Stone Mastic Asphalt Surfacing (SMA)
- b) Where required, reconstruction of supporting layers with modified BTB asphalt base;
- c) Removal of grass on runway shoulders and rejuvenating areas which have started to age;
- d) Where required, removal of runway lights before paving. Re-installment of runway lights prior to opening of runway for aircraft.
- e) Reference existing paint markings and reinstatement before opening of the runway.

1. GENERAL AND PRECAUTIONARY MEASURES AND NOTES

The Contractor's attention is drawn to the following:

- f) The Contractor must visit the site and inspect prior to the submitting of the bid and make a note of all the other work not mentioned in this document.
- g) All materials for paintwork shall be delivered to the site in unopened containers leaving the name of the manufacturer thereon. No alteration of paints shall be permitted. Undercoats of the finishing material shall be supplied by the manufacturer and shall be applied according to the manufacturer's specifications.
- h) Materials shall be suitable for the surfaces to which they are to be applied and of superior quality as required.
- i) Lay down suitable screen covers, internal and external. Tarpaulins and/or similar approved materials to protect existing work and adjacent parts of the building against spotting and damage where required while the work is in progress.
- j) Supply, erect and dismantle on completion, suitable scaffolding, cradles, ladders, etc. to reach all parts of the building to enable the work to be carried out in a safe and workmanlike manner. The scaffolding to be regularly inspected, examined, and maintained throughout by a competent scaffolder.
- k) Provide, supply, and maintain all necessary plant, tools, equipment, and appliances required for the due performance of the works.
- l) Where stains, contamination or other defects cannot be satisfactorily removed, the work must be done over again at the Contractor's own expense.
- m) The Contractor is to supply all necessary material, equipment, tools, plant, scaffolding, labour, etc, to carry out and complete the works to the satisfaction of the Director: Technical SERVICES (Civil)
- n) The Contractor will be permitted to erect a temporary office/store on the site for the duration of the contract as show by the Clerk of Works. This office/store will be a neat construction. The Contractor will not permit any guard, labourer or any person to be accommodated in the said office/store for any reason whatsoever therefore it shall be securely locked at all times.

- o) The Contractor shall, at his own sole cost, provide accommodation for himself, his labourers, foreman or any other person directly or indirectly involved in this contract on his behalf.
- p) All materials and components must comply with SANS (South African National Standards) 1200 specifications and the NBR (National Building Regulations)

2. INSURANCE: DAMAGE AND LOSSES TO PUBLIC AND TO PROPERTY

The Contractor shall make provisions at his own sole cost to be adequately insured for the duration of the said contract period.

The Contractor shall be liable for the payment of any claim by any person, which may be due or arise from, the execution of the said works, or from the conditions of the works of the premises, whether such claim may be in respect of damage or losses to property, personal injury or the death of any person whomsoever. The Contractor hereby indemnifies the employer against the claim of against the claim of any such nature, together with all costs, which the employer may incur in defending or resisting such claim. The Contractor furthermore indemnifies the employer against any claim arising from the negligence or default of himself or any sub-contractor or person under his control.

3. UTILIZING OF PANEL

The request for quotations will be sourced from the panel members only and will be on an as and when required basis and the allocation of work will be as per the instruction letter issued by the Municipality.

That it be noted that all future works will comply with the minimum requirements of local content and production and the applicable percentage will be determined during the quotation phase.

4. PAYMENT

4.1 Certificates of completion

Certificates of completion will be issued as soon as the work has been completed in terms of the GCC 2015 or JBCC Series (2014, Edition 6.2) (depending on nature of work.

4.2 Release of retention money

One half (5% of project amount) of the retention money will only be released when the municipality, in terms of the JBCC Series (2014, Edition 6.2) has certifies the work complete in all respect. (RETENTION IS 10% OF CONTRACT PRICE).

4.3 Defect liability period

The defect liability period in terms of clause 54 of the GCC or JBCC Series (2014, Edition 6.2) will be calculated from date of the certificate of completion.

4.4 Time for Completion

The time for completion for each task, will be in accordance with the Municipality or delegated official as instructed. Failure the contractor will be liable to pay a fee of 0.05% of the contract sum per day for delays.

5. TESTING AND QUALITY CONTROL

The contractor shall engage the services of an approved laboratory for the testing of materials and the quality testing of complete work, to ensure that the work complies with the specifications.

No separate payment will be made for such testing, the cost of which will be deemed to be included in the contractor's tenderer rates for the items of work that require testing in accordance with specifications.

Should the testing laboratory proposed by the contractor not be approved by TECHNICAL SERVICES AND DEVELOPMENT PLANNING AND HUMAN SETTLEMENT the contractor shall at his own cost propose and negotiate with another laboratory.

6. COMPLETION

On completion of the work entailed in this specification the site is to be cleared of all rubbish accumulated during work and left clean and tidy to the entire satisfaction of the Clerk of Works.

7. TIME FOR COMPLETION

The time for completion shall as per project specification from the date of the official site handover. And should fall within the time frame submitted during tender period.

8. ALTERNATIVE PRODUCTS

In all cases where specific products are mentioned in foregoing clauses it must be noted that similar products approved by the Director: DP&HS will also be accepted. The Contractor is to specify all alternative products.

C3.4 MATERIALS AND SPARES

Should the Contract use any material and/or spares, will be charged on a cost plus and Tax invoice for material used must be attached on the claim.

C3.5: OCCUPATIONAL, HEALTH AND SAFETY

C3.5.1 GENERAL

C3.5.1.1 Tender Document

This document is the pre-contract Health and Safety Specification which must be used by the Principal Contractor and Sub Contractors appointed by the Principal Contractor to compile Health and Safety Plans for this project and forms part of the tender documentation.

The Principal Contractor and Sub Contractors' particular attention is drawn to Section 1.2 of this specification whereby

“Upon award of the contract, the contractor is to assume and adopt the function and duties of the Principal Contractor as set out in the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.”

The health and safety specifications outlined herein must be taken into account and due allowance made within the pricing of appropriate items contained within the specification. Where the tenderer is of the opinion that a requirement is missing or is not adequately specified then this shall be drawn to the Client / Client's Agent's attention during the tender period. In the absence of any direction to the contrary, the tenderer shall as part of the tender submission, set out the details of such discrepancy together with the costs associated therewith, separately identified and included within the tender figure.

C3.5.1.2 Principal Contractor

The successful tenderer will sign the contract for: RESEALING OF THE AIRPORT RUNWAY_3CEOR HIGHER. and then be required to fulfil the function and duties of the Principal Contractor as set out in the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.

C3.5.1.3 Start of Construction Phase

The construction phase shall not commence until the Principal Contractor's Health and Safety Plan was considered and approved by the Client / Client's Agent and Design Team. The Client / Client's Agent shall discuss and negotiate with the Principal Contractor the contents of the Health and Safety Plan submitted by the Principal Contractor before finally approving it for implementation.

The construction phase shall not commence until written permission is received from the Client / Client's Agent. In this respect the Client / Client's Agent may rely on the advice of the Design Team as to the adequacy and comprehensiveness of the Plan offered by the Principal Contractor.

In preparing their detailed Health and Safety Plan based on the relevant sections of this Health and safety Specifications supplied to them by the Client, Client's Agent, contractors must allow for the adoption of safe working procedures and co-ordinate and rationalize activities to avoid controllable hazards arising due to clashes of activities.

C3.5.1.4 Sub-Contractors, Suppliers & Designers

The Principal Contractor shall ensure that all direct appointments in connection with this project include provisions for the compliance of his sub-contractors, suppliers and designers, etc, with the relevant provision of the Occupational Health and Safety Act (Act 85 of 1993) and it's Regulations, in particular the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.

C3.5.1.5 Liaison

The Principal Contractor shall together with all his appointees, liaison with the Client / Client's Agent as required under the Regulations and agree procedures for the transfer of relevant Information in respect of designs and in connection with the preparation of the Health and Safety File.

C3.5.1.6 Advice

The tenderer shall, as part of the tender submission, indicate where advice will or may be required of the Client / Client's Agent in respect of the competence of the tenderer's designers and the adequacy of resources allocated or to be allocated by them.

C3.5.1.7 Undertaking by Principal Contractor and Sub-Contractors appointed by the Principal Contractor

The Principal Contractor as well as Sub-Contractors appointed by him / her shall undertake in writing to ensure that the provisions of the Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, in particular the Construction Regulation of 2003 No. R 1010 and any amendments or re-enactments thereto are complied with. The attached Occupational Health and Safety provisions undertaking form for the Principal Contractor in Appendix 1 shall be completed and signed by the Managing Director of the company / firm awarded the tender.

C3.5.2 INFORMATION REQUIREMENTS

The contractor must provide the following information.

C3.5.2.1 General

The Principal Contractor / Sub-Contractor shall have an OHS Policy in accordance with the OHS(Occupational Health and Safety Act, Act 85 of 1993) and include a copy of the Policy in the Health and Safety Plan to be submitted by the Principal Contractor / Sub-Contractor.

The Principal Contractor / Sub-Contractor shall promptly display a copy of the Company's OHS Policy on the OHS Notice Board for the duration of the contract and include it into information provided to persons at the contract OHS induction.

The Principal Contractor shall develop a Contract specific OHS Management Commitment Statement based on the Company's OHS Policy.

The Principal Contractor's Managing Director shall sign the Commitment Statement and prominently display a copy on the OHS Notice Board for the duration of the contract. A copy of the Commitment Statement shall be included in information provided to persons at the Contract OHS induction and a copy shall also be supplied to each sub-contractor.

C3.5.2.1 Management

Details of the personnel and management systems to be put in place to prepare, manage, implement, conduct and monitor the Health and Safety Plan for the project. Broadly speaking your:

Organization's internal structure that establishes SHE (Safety, Health and Environmental) ROLES, RESPONSIBILITIES, ACCOUNTABILITIES and REPORTING RELATIONSHIPS.

SHE (Safety, Health and Environmental) PLANS, POLICIES, PROCEDURES, DIRECTIVES and STANDARDS that provide instructions as to how activities and functions are to be carried out,

SHE (Safety, Health and Environmental) CONTROLS, INSPECTIONS, REVIEWS, etc. built into construction operations to ensure that performance is consistent with SHE (Safety, Health and Environmental) objectives and requirements,

SHE (Safety, Health and Environmental) COMMUNICATION MECHANISMS for collecting, handling and reporting information.

In other words Management Systems that specifies WHO is going to do WHAT, WHERE, WHEN, Why and HOW.

Details of relevant qualifications and experience held by the persons nominated above, including recent health and safety education and training undertaken.

Procedures for determining the competence of contractors engaged on the project, whether employed by the contractor directly or by others, to fulfil their duties under the Construction Regulations 2003 (No. R. 1010 Promulgated 18 July 2003).

C3.5.2.2 Hazard Identification, Risk Assessment and control

The Principal Contractor / Sub-Contractor shall detail and implement procedures that will identify hazards, assess risks and determine suitable control measures as they arise throughout term of the contract. These procedures shall both comply with and be implemented and managed in accordance with the specification.

The Principal Contractor / Sub-Contractor shall detail and implement procedures that ensure control measures are evaluated for effectiveness and modified as necessary. The evaluation procedure shall detail the responsibilities, timelines and records that will be kept as part of the process.

Where Risk is controlled through administrative control measures, the Principal Contractor / Sub-Contractor shall ensure that the administrative measures are:

- a) Clearly documented and those personnel responsible for implementation and management are explicitly defined;

- b) Understood by all relevant personnel through training and assessment;
- c) Implemented as documented and promptly reviewed for effectiveness following initial implementation;
- d) Amended and authorized as required;
- e) Adequately supervised, managed and audited to ensure continuing compliance;
- f) Available at all times wherever the measures are being implemented.

Any piece of plant or equipment not complying with the specification shall cease operation until the Principal Contractor / Sub-Contractor can demonstrate to the satisfaction of the Client / Client's Agent that the piece of non-conforming plant or equipment conforms to these requirements.

C3.5.2.3 Health and Safety Plan

The Principal Contractor / Sub-Contractor shall develop a Health & Safety Plan to reflect variations in design or changes in site conditions and liaise with the Client / Client's Agent.

The Principal Contractor shall develop this Health and Safety Plan so that it:

- a) Incorporates the contractor's approach to managing the construction work to ensure the health and safety of all persons carrying out the construction work and all persons who may be affected by their work.
- b) Includes the risk assessments prepared by all Contractors under their duties set out in the Construction Regulations 2003 and any other relevant legislation (i.e. the OHS Act and Regulations, etc).
- c) Includes the arrangements for ensuring that, where appropriate or specifically requested, all Contractors / Sub-Contractors prepare suitable and sufficient method statements for their construction works which incorporate adequate measures for ensuring the health and safety of all persons who may be affected by these works.
- d) Incorporates the common arrangements for site safety, statutory notices and registers etc.
- e) Includes the site rules to be adopted for controlling the risks to health and safety during the construction phase(s) or the project.
- f) Includes reasonable arrangements for monitoring compliance with health and safety legislation and site rules.

- g) Includes reasonable measures to ensure co-operation between all Contractors and Sub-Contractors in respect of health and safety provisions and prohibitions.
- h) Includes the steps to be taken to ensure that only authorized persons are allowed into any premises or parts of the site / premises where construction work is being carried out.
- i) Includes arrangements for emergency procedures.
- j) Includes arrangements for ensuring that, so far as is reasonably practicable, every Contractor and Sub-Contractor is provided with comprehensible information about the risks to health and safety of that Contractor / Sub-Contractor, or of any employees or other persons under their control, arising out of the construction works, including the emergency procedures.
- k) Includes details of the arrangements for ensuring, so far as is reasonably practicable, that the employees or other persons under the control of any Contractor / Sub-Contractor, and any visitors to the site, receive adequate information about the risks to their health and safety arising out of the construction works and, where necessary, adequate training to carry out their work in a safe and healthy manner.
- l) Includes arrangements for providing all persons at work on the site and visitors to the site with the opportunity and means of discussing and offering advice on health and safety issues relating to the construction works.
- m) Includes arrangements for the reporting of any accidents, injuries or dangerous occurrences, including conforming with the statutory requirements.
- n) Can be modified as the work proceeds to take account of any information received from Contractors / Sub-Contractors, any experience gained during the course of the project or any changes necessary as a result of unforeseen circumstances or alterations to the design.

C3.5.2.4 Programme

A time estimate required by the contractor to implement the Health & Safety Plan sufficiently for works to commence on site.

C3.5.2.5 Cost

A detailed breakdown of costs allowed in the contractor's tender for preparing, managing, implementing and monitoring the Health and Safety Plan, and for

complying with the requirements imposed on the Principal Contractors under the Construction Regulations of 2003(No. R. 1010 Promulgated 18 July 2003).

C3.5.3 GENERAL SITE SAFETY

C3.5.3.1 Safety training & education

The Principal Contractor shall detail the OHS competencies and training received by its contract management personnel.

The Principal Contractor's Health and Safety Plan shall have a detailed register of the skills and competencies for all personnel for the activities that the personnel will undertake under the contract. (E.g. Mobile plant operators, crane operators etc.)

The Principal Contractor shall demonstrate and maintain documentary evidence of competencies on site for the duration of the contract.

C3.5.3.1.1 Induction Training

The Principal Contractor / Sub-Contractor shall develop and detail a Site Induction Training Programme as part of the Occupational Health and Safety Plan to be submitted to the Client / Client's Agent prior to commencement of construction that includes as a minimum:

- a) Training related to hazards likely to be encountered on Site and control measures that have been developed in response to these hazards;
- b) Roles and Responsibilities;
- c) The requirements of the Health and Safety Plan submitted and approved
- d) Address the identified issues in the Fire Safety, Emergency, Evacuation and Rescue Plan to ensure that all Site personnel are aware of procedures in the event of an incident or emergency occurring;

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract. The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

C3.5.3.1.2 Induction training for specified work

The Principal Contractor / Sub-Contractor shall conduct Site Specific Occupational Health and Safety Induction Training for all personnel, the Client / Client's Agent and all visitors not escorted on Site by inducted persons.

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the Site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract.

The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

C3.5.3.2 Recording & reporting of injuries

Make arrangements for all contractors to report accidents, ill health and dangerous occurrences notifiable to the Department of Labour under Section 24 of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993) (Reporting to DOL (Department of Labour) Inspector regarding certain incidents).

All lost time incidents associated with the contract works or reportable as defined by Section 24 of the OHS Act shall be immediately reported to the Client / Client's Agent.

The Principal Contractor / Sub-Contractor shall provide a detailed report of all accidents / incidents, including events that could have become lost time incidents were it not for fortuitous circumstances to the Client / Client's Agent within 5 days of the incident occurring. The Principal Contractor / Sub-Contractor shall provide copies of all reports and information associated with the incidents to the Client / Client's Agent. Copies of reports must be placed on the Health and Safety File.

Where the Principal Contractor / Sub-Contractor has been:

- Served with a prohibition, contravention or improvement notice under the OHS Act; or
- Required to comply with any order issued by an inspector for the Department of Labour;

The Principal Contractor / Sub-Contractor shall immediately supply a copy of that notice, order or notification to the Client / Client's Agent.

Where the Principal Contractor / Sub-Contractor have been served with a summons or is convicted of any offence in relation to occupational health and safety, the Principal Contractor / Sub Contractor shall immediately supply a copy of that summons to the Client / Client's Agent.

The Principal Contractor / Sub-Contractor shall detail the reporting and investigation procedures for incident investigation. The procedures shall include the investigating officer responsible and the time limits imposed for reporting and investigating the incident and to implement corrective action in a timely manner so as to prevent a recurrence.

The client / Client's Agent may participate in or undertake an investigation into the incident, injury or illness at its discretion and the Principal Contractor / Sub-Contractor shall cooperate with and provide assistance to the investigation organized and undertaken by the Client / Client's Agent.

C3.5.3.3 First Aid

Establish and implement a first-aid programme to provide emergency treatment to victims of accidents, chemical substances or excessive exposure to toxic substances.

The programme shall include:

- proper first aid facilities administered by qualified personnel,
- first-aid boxes,
- first-aid room, where there are 500 or more workers on site,
- training and re-training of first-aiders,
- first-aid treatment procedures,
- standard procedures,
- special procedures, e.g. for poisoning,
- maintenance of first-aid facilities

All first-aid provisions shall comply with the OHS Act (Act 85 of 1993)

C3.5.3.4 Fire protection and prevention

- Appropriate measures must be taken to avoid the risk of fire.
- Sufficient and suitable storage must be provided for flammable liquids, solids and gases.

- Smoking must be prohibited and notices in this regard must be prominently displayed in all places containing readily combustible or flammable materials;
- Combustible materials must not accumulate on the construction site.
- Welding, flame cutting and other hot work may only be done after the appropriate precautions have been taken to reduce the risk of fire.
- Suitable and sufficient fire-extinguishing equipment must be placed at strategic locations and such equipment must be maintained in good working order
- A sufficient number of workers must be trained in the use of fire-extinguishing equipment.

C3.5.3.5 Site Emergency Procedures

The Principal Contractor / Sub-Contractor shall establish an Emergency Evacuation and Rescue plan.

The plan shall include the following detail:

- The role and responsibility of every individual in the work area on fire safety
emergency evacuation and rescue;
- General work area precautions, fire prevention, detection, protection and
warning alarm systems;
- Fire fighting and rescue equipment including types of fire extinguishers;
- Fire safety measures for Site accommodation;
- Escape and communication;
- Fire brigade access, facilities and coordination;
- Fire drills and training including the use of firefighting equipment;
- Material storage including flammable liquids, gasses and waste;

The Principal Contractor / Sub-Contractor shall ensure that all procedures, precautionary measures and safety standards stipulated in the Plan are communicated, implemented and complied with by all workers including other interfacing contractors on Site.

The Principal Contractor / Sub-Contractor shall practice their emergency preparedness within six (6) weeks of the commencement of work and at least four (4) monthly intervals thereafter

The Principal Contractor / Sub-Contractor shall review and ensure the adequacy of the Plan as the work progress.

The Principal Contractor / Sub-Contractor shall conduct monthly checks on fire fighting equipment and test alarms and detection devices installed on Site and document findings in a register which shall be on site at all times for inspection.

The Principal Contractor / Sub-Contractor shall conduct weekly inspections of escape routes, fire brigade access, fire fighting facilities and working areas to ensure that the requirements stipulated in the Fire Safety, Emergency, Evacuation and Rescue Plan are complied with. All inspection records shall be documented in registers and kept in the Health and Safety file for inspection at any time.

C3.5.3.6 Housekeeping

Suitable housekeeping must continuously be implemented on the construction site, including:

- proper storage of materials and equipment
- removal of scrap, waste and debris at appropriate intervals;

Loose materials shall not be placed or allowed to accumulate on the site so as to obstruct access and egress from workplaces and passageways.

C3.5.3.7 Stacking & Storage

- Adequate storage areas are must be provided.
- Storage areas must be kept neat and under control.

C3.5.3.8 Illumination

Provide adequate artificial lighting when work is carried out after dark or inside buildings.

C3.5.3.9 Sanitation / Hygiene

Provision of site hygiene facilities:

- One sanitary facility for every 30 workers.
- Adequate washing facilities.
- One shower facility for every 15 workers;

Drying sheds, huts, rooms or other accommodation for sheltering during bad weather, storing clothes and taking meals. Facilities should include tables and chairs, suitable means for boiling water and a supply of wholesome drinking water.

The contractor shall provide reasonable and suitable living accommodation for the workers at construction sites which are remote from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

C3.5.3.10 Personal Protective Equipment

The Principal Contractor / Sub-Contractor shall provide and maintain suitable PPE (Personal Protective Equipment) for all employees employed on the Site.

The Principal Contractor / Sub-Contractor shall ensure that such PPE comply with the requirements of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993).

The Principal Contractor / Sub-Contractor shall also ensure that all equipment is properly used by his / her employees during the course of their work.

The Principal Contractor / Sub-Contractor shall record all issues of all equipment to his / her employees in documented registers and such registers shall be kept in the Health and Safety File on site and made available for inspection at all times.

The Principal Contractor / Sub-Contractor shall provide the Client / Client's Agent with a colour code by which employees will be identified with regard to occupations, responsibilities, accountabilities, reporting relationships and access to different locations on site. (e.g. hard hats, overalls)

PPE shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards

All personal protective equipment shall be of safe design and construction for the work to be performed.

C3.5.3.11 Permit to work requirements

Institute a "hot work" permit system in respect of:

- metalwork flame cutting,
- site welding,

C3.5.3.12 Lock-out

Institute a "Lock-out" procedure in respect of controlling energy so as to prevent unexpected operation or activation of machinery or equipment. This procedure must include a written policy, specific procedures, rules and supervisory follow-up, covering the positive locking of switches and valves to ensure that alterations, maintenance, set-up and or other work can be performed safely.

C3.5.3.13 Monthly Health and Safety Audits

The Principal Contractor shall carry out monthly Health and Safety Audits on the measures contained within his / her Health and Safety Plan submitted to the Client / Client's Agent as well as Health and Safety Plans submitted by Sub-Contractors appointed by the Principal Contractor to demonstrate that the required level of health and safety are being achieved and maintained and compile a full report to the Client / Client's Agent on such audit.

The Client / Client's Agent will audit the Principal Contractor as well as his / her Sub-contractor's Health and Safety Plans from time to time and will advise the Principal Contractor of any matter with which he / she is not satisfied and the Principal Contractor shall take such steps as are necessary to satisfy the Client / Client's Agent.

The Client / Client's Agent will carry out such audits as he / she considers necessary but not less than monthly.

The Principal Contractor shall make available, specialist personnel as the Client / Client's Agent may consider necessary for the performance of such audits.

The Principal Contractor shall develop and maintain an Audit Schedule that details the audits planned to be undertaken by the Principal Contractor of the work under the contract, including sub-contractors, for the duration of the contract. The Audit Schedule shall form part of the Health and Safety Plan that needs to be submitted by the Principal Contractor.

Audit reports shall detail the scope of the audit, the audit questions and the audit findings.

The Client / Client's Agent shall be promptly provided with copies of all audit reports together with other documentation to show that all matters raised have been appropriately addressed.

Unless otherwise directed by the Client / Client's Agent the Principal Contractor / Sub-Contractor shall undertake its initial OHS Audit within 4 weeks of

commencement of work. The Principal Contractor / Sub-Contractor shall undertake subsequent OHS Audits at a frequency not less than once every 3 months.

All Principal Contractor's OHS Audits shall include an assessment of Sub-Contractor compliance with the approved OHS Plan.

C3.5.3.14 Management Review

The Principal Contractor shall undertake an independent review of the Health and Safety Plan for the contract in accordance with the requirements of the OHS Act, relevant Regulations and in particular the Construction Regulations 2003.

A review shall be undertaken 3 months after commencement of the contract and every 6 months thereafter for the duration of the contract.

Following the completion of the review, the Principal Contractor shall submit a written report that details the suitability, adequacy and effectiveness of the OHS Plan and to certify that the Site procedures, practices and operations are in accordance with the contract.

C3.5.3.15 Provision of Information

Provide Sub-Contractors appointed by him / her with the relevant sections of the Health and Safety specifications pertaining to the construction work which has to be performed.

Where changes are brought to the design and construction, provide sufficient information and appropriate resources to the Sub-Contractor to execute the work safely.

Discuss and negotiate with Sub-Contractors the contents of the Health and Safety Plan / Plans submitted by them and finally approve such plans for implementation.

Ensure that copies of Health and Safety plans compiled by the Principal Contractor and his / her Sub-Contractors are available on request to an employee, DOL Inspector, contractor, Client / Client's Agent.

The Principal Contractor / Sub-Contractor shall detail procedures that will ensure that personnel are suitably consulted and communicated with during the planning and application of work activities associated with the contract.

The Principal Contractor / Sub-Contractor shall detail the procedures for the identification, assessment and control of hazards associated with the day-to-day work activities. These procedures shall include requirements for consultation with personnel involved in the work activity.

The Principal Contractor / Sub-Contractor shall have procedures for ensuring that OHS information is communicated to and from its personnel. The Principal Contractor / Sub-Contractor shall hold OHS meetings with all personnel or their representatives at the site on a weekly basis.

Minutes shall be recorded for all OHS meetings and posted on OHS notice boards within 48 hours of the meeting.

The Principal Contractor / Sub-Contractor shall maintain at the Site an OHS Notice Board located in a prominent position and accessible to all personnel, for the distribution of OHS information.

The Principal Contractor / Sub-Contractor shall as a minimum, establish and implement procedures for reporting relevant and timely information with regard to OHS Performance and incidents.

The Principal Contractor / Sub-Contractor shall establish, implement and maintain a controlled copy of all Contract OHS documentation on Site.

Where the Principal Contractor / Sub-Contractor's Health and Safety Plan references other documentation including the contract, the Principal Contractor / Sub-Contractor shall ensure that section and clause numbers are clearly denoted in its Health and Safety Plan. All documentation referenced in the Health and Safety Plan shall be available on Site for the duration of the contract.

Ensure that Health and Safety Files kept by Sub-Contractors appointed by the Principal Contractor is kept on site and made available to an inspector, Client / Client's Agent.

Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.

In addition to the Health and Safety File compile a comprehensive and updated list of all contractors on site accountable to the Principal Contractor

as well as the agreements between the parties and the type of work done by them.

C3.5.3.16 Stop the execution of Construction Work

Stop any construction / construction related work conducted by any person on the construction site, which is not in accordance with the Principal Contractor's health and safety plan and or the health and safety plans of Sub-Contractors which poses a threat to the health and or safety of persons.

C3.5.3.17 Handing over of Project Health and Safety file

Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.

In addition to the Health and Safety File compile and hand over a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

C3.5.3.18 Records and Records Management

The control of records shall be in accordance with the Principal Contractor's / Sub-Contractor's approved Health and Safety Plan for the contract.

Records shall be registered, ordered and retained on Site in the Health and Safety File for the duration of the contract.

C3.5.4 CHEMICAL HAZARDS

The following construction materials and substances to be used in the works have been identified as potentially posing special health and/or safety hazards during the project:

C3.5.4.1 Substances

- Asphalt
- Bitumen
- RTH Tar prime
- Synthetic Polymer (Polyester / Polypropylene / Polyethylene)
- Stabilizing agents

- Anionic stable grade emulsion
- Rubber
- Bitumen Rubber mix
- Hydrophilic aggregates
- Cationic emulsion
- Proprietary chemical additive
- Styrene
- Butadiene rubber (SBR latex)
- Cleaning agent
- Paint
- Oxygen
- Acetylene
- Diesel
- Petrol
- Weed killer

C3.5.4.2 Material

- Cement
- Lime
- Mud rock
- Shale
- Clay
- Synthetic fibre filter fabric
- Geo-textile (synthetic polymer)
- Crushed aggregate
- Weathered dolerite gravel
- Fine slurry
- Crusher dust
- Paving blocks

Adhesives / solvents which may make personnel ill by breathing in vapours, irritation if in contact with skin and eyes and can be highly flammable.

Cement - can cause ill health by:

- a) Skin contact, cement burns and dermatitis.
- b) Eye contact, irritation and inflammation.
- c) Inhalation of dust, irritation to nose and throat and causes difficulty with breathing.

Oil based paint can cause illness by breathing in vapours.

Silicone sealant with fungicide can cause skin irritation.

Timber preservative / flame retardant which can cause irritation to the skin, eyes, nose and throat and harmful if ingested.

Paving slabs which may contain silica can, when cut, create dust which may affect the lungs.

Chemical cleaners can cause ill health mainly by:

- a) Skin contact, acids and alkalis are highly corrosive and destructive to body tissue causing burns.
- b) Inhaling fumes or mist, concentrated solutions of acids and alkalis emit toxic and corrosive fumes.

All materials contained within aerosol containers which are pressurized. Contractors are required to take appropriate measures to manage the risks arising and to provide details of their proposed measures within their tenders and to incorporate adequate method statements within the Health and Safety Plan.

This is not a definitive list of all potential harmful products. Other materials and substances commonly used during construction may also present health or safety hazards, however, it is deemed that these should be familiar to the average competent Contractor as part of routine risk and OHS (Occupational Health, Safety and Hygiene) assessments and are therefore not included here.

Adopt all precautionary measures provided by manufacturers for storage, use and application of specified materials.

Data sheets for these, and any other materials that will be used for the works, are to be obtained by the contractor from the manufacturers.

C3.5.5 SAFETY HAZARDS

C3.5.5.1 Tools

C3.5.5.1.1 Hand tools

- Employers shall not issue or permit the use of unsafe hand tools.
- Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.

- Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.
- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

C3.5.5.2 Portable electrical Tools

No person shall use a portable electric tool with an operating voltage which exceeds 50 to earth unless –

- it is connected to a source of electrical energy incorporating an earth leakage protection device which meets the requirements of section 36 of the OHS Act, or,
- it is connected to a source of high frequency electrical energy derived from a generator which is used solely for supplying energy to such portable electric tool and which arrangement is approved by the chief inspector; or
- it is clearly marked that it is constructed with double or reinforced insulation.

Portable electric tools, together with its flexible cord and plug shall be maintained in a serviceable condition.

C3.5.6 EXCAVATIONS

- The contractor shall ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing.
- The contractor shall evaluate the stability of the ground before work begins.
- The Contractor shall take suitable and sufficient steps in order to prevent any person from excavation being buried or trapped by a fall or dislodgement of material in an excavation;
- The contractor shall not permit any person to work in an excavation which has not been adequately shored or braced.
- Shoring and bracing may not be necessary where-
 - the sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
 - such an excavation is in stable material;
 - Provided that-
- permission being given in writing by the appointed competent person upon evaluation by him or her of the site conditions; and
- where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations shall be decisive and such a decision shall be noted in writing and

signed by both the competent person and a professional engineer or technologist, as the case may be;

- Take steps to ensure that the shoring or bracing is designed and constructed in such a manner rendering it strong enough to support the sides of the excavation in question;
- Ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endangering the safety of, any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
- Cause convenient and safe means of access to be provided to every excavation in which persons are required to work and such access shall not be further than 6m from the point where any worker within the excavation is working;
- Cause every excavation, including all bracing and shoring, to be inspected-
 - i) daily, prior to each shift;
 - ii) after every blasting operation;
 - iii) after an unexpected fall of ground;
 - iv) after substantial damage to supports; and
 - v) after rain,

by a competent person in order to pronounce the safety of the excavation to ensure the safety of persons, and those results are to be recorded in a register kept on site and made available to an inspector, client, client's agent, contractor or employee upon request;

- Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be-
 - adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable; and
 - provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor
- Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

C3.5.7 FORMWORK & SUPPORT WORK

- The contractor shall ensure that-

- all formwork and support work operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose;
- all formwork and support work structures, are adequately designed, erected, supported, braced and maintained so that they will be capable of supporting all anticipated vertical and lateral loads that may be applied to them and also that no loads are imposed onto the structure that the structure is not designed to withstand.
- The designs of formwork and support work structures are done with close reference to the structural design drawings and where any uncertainty exists, the structural designer should be consulted.
- All drawing pertaining to the design of formwork or support work structures are kept on the site and are available on request by an inspector, contractor, client, client's agent or employee.
- All equipment used in the formwork or support work structure are carefully examined and checked for suitability by a competent person, before being used.
- All formwork and support work structures are inspected by a competent person immediately before, during and after the placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work structure has been removed and the results have been recorded in a register and made available on site.
- If, after erection, any formwork and support work structure is found to be damaged or weakened to such a degree that its integrity is affected, it shall be safely removed or reinforced immediately.
- Adequate precautionary measures are taken in order to-
 - Secure any deck panels against displacement, and
 - Prevent any person from slipping on support work or formwork due to the application of formwork or support work release agents.
- The health of any person is not affected through the use of solvents or oils or any other similar substances.
- Upon casting concrete, the support work or formwork structure should be left in place until the concrete has acquired sufficient strength to support safely, not only its own weight but also any imposed loads and not removed until authorization has been given by a competent person.
- Provision is made for safe access by means of secure ladders or staircases for all work to be carried out above the foundation bearing level.

- All employees required to erect, ,move or dismantle formwork and support work structures are provided with adequate training and instruction to perform these operations safely
- The foundation conditions are suitable to withstand the weight caused by the formwork and support work structure and any imposed loads, such that the formwork and support work structure are stable.

C3.5.8 CONSTRUCTION VEHICLES

The contractor shall ensure that all construction vehicles and mobile plants-

- are of an acceptable design and construction;
- are maintained in a good working order;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- are operated by workers who-
 - i) have received appropriate training and been certified competent and been authorized to operate such machinery; and
 - ii) are physically and psychologically fit to operate such construction vehicles and mobile plant by being in possession of a medical certificate of fitness;
- have safe and suitable means of access;
- are properly organised and controlled by providing adequate signaling or other control arrangements to guard against the dangers. relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guardrails and crash barriers;
- where appropriate, are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- are equipped with an electrically operated acoustic signaling device and a reversing alarm;
- are on a daily basis inspected prior to use, by a competent person who has been appointed in writing and the findings of such inspection is recorded in a register.

The contractor shall furthermore ensure that-

- no person rides or be required or permitted to ride on any construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- every construction site is organised in such a way that pedestrians and vehicles can move safely and without risks to health;
- the traffic routes are suitable for the persons using them, sufficient in number, in suitable positions and of sufficient size;
- every traffic route is, where necessary indicated by suitable signs.
- all construction vehicles and mobile plant left unattended at night, adjacent to a freeway in normal use or adjacent to construction areas where work is in progress, shall have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant;
- bulldozers, scrapers, loaders, and other similar mobile plant are, when being repaired or when not in use, fully lowered or blocked with controls in a neutral position, motors stopped and brakes set;
- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- tools and material are secured in order to prevent movement when transported in the same compartment with employees;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- when workers are working on or adjacent to public roads, reflective indicators are provided and worn by the workers.

C3.5.9 ELECTRICAL INSTALLATIONS

Before construction commences and during the progress thereof, adequate steps must be taken to ascertain the 'presence of and guard against danger to workers from any electrical cable or apparatus.

All parts of electrical installations and machinery must be of adequate strength to withstand the working conditions on construction sites; In working areas where the exact location of underground electric power lines is unknown, employees using jackhammers, shovels or other hand tools which may make contact with a power line, must be provided with insulated protective gloves or otherwise that the handle of the tool being used is insulated;

All temporary electrical installations must be inspected at least once a week and electrical machinery on a daily basis before use on a construction site by competent persons and the records of these inspections must be recorded in a register to be kept on site.

The control of all temporary electrical installations on the construction site must be designated to a competent person who has been appointed in writing.

C3.5.10 USE & STORAGE OF FLAMMABLE LIQUIDS

- Where flammable liquids are being used, applied or stored it must be done in such a manner that would cause no fire or explosion hazard, and that the workplace is effectively ventilated:

Provided that where the workplace cannot effectively be ventilated-

- i) every employee involved is provided with a respirator, mask or breathing apparatus of a type approved by the chief inspector, and
 - ii) steps are taken to ensure that every such employee, while using or applying flammable liquid, uses the apparatus supplied to him or her;
- No person smokes in any place in which flammable liquid is used or stored, and the contractor shall affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
 - Flammable liquids on a construction site is stored in a well-ventilated reasonably fire resistant container, cage or room and kept locked with proper access control measures in place;
 - An adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
 - Only the quantity of flammable liquid needed for work on one day is to be taken out of the store for use;
 - All containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, to be removed from the construction site and safely disposed of;
 - Where flammable liquids are decanted, the metal containers are bonded or earthed;
 - No flammable material such as cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids.

C3.5.11 DISPOSAL OF MATERIALS

See – Environmental Management Plan – Tender Document

C3.5.12 WELDING & CUTTING

No contractor shall require or permit welding or flame cutting operations to be undertaken, unless –

- the person operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards which may arise from its use;
- effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation;
- leads and electrode holders are effectively insulated; and
- the workplace is effectively partitioned off and where not practicable all other persons exposed to the hazards are warned and provided with suitable protective equipment.

No contractor shall require or permit electric welding to be undertaken in wet or damp places, inside metal vessels or in contact with large masses of metal, unless –

- the insulation of the electrical leads is in a sound condition;
- the electrode holder is completely insulated to prevent accidental contact with current-carrying parts;
- the welder is completely insulated by means of boots, gloves or rubber mats; and
- at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations

No contractor shall require or permit welding, flame cutting, grinding, soldering or similar work to be undertaken in respect of any tube, tank, drum, vessel or similar object or container where such object or container –

- is completely closed, unless a rise in internal pressure cannot render it dangerous; or
- contains any substance which, under the action of heat, may –
 - i) ignite or explode; or
 - ii) react to form dangerous or poisonous substances,

Where hot work involving welding, cutting, brazing or soldering operations is carried out at places, other than workplaces which have been specifically designated and equipped for such work, the employer shall take steps to ensure that proper and adequate fire precautions are taken.

C3.5.13 BLASTING & USE OF EXPLOSIVES

C3.5.13.1 Safety distances

The contractor shall –

- apply the safety distances for the respective categories of explosives as stipulated in Annexure 1 of the Explosives regulations;
- where less than five kilograms of explosives is used, apply to the chief inspector of occupational health and safety for a determination of a safety distance which the employer shall enforce;

C3.5.13.2 Supervision of explosives

In order to ensure that the provisions of the Act and its regulations in relation to explosives workplaces are complied with, the contractor shall in writing appoint a competent and certificated person in a full-time capacity to be explosives manager in respect of every workplace where explosives are being used, tested, stored or manufactured:

The contractor shall appoint one or more persons, who are suitably qualified and experienced, as authorized supervisors to assist the explosives manager.

The contractor shall ensure that –

- the explosives manager
 - i. approves in writing the rules, methods, materials, equipment and tools to be used in the danger area;
 - ii. ensures that all persons under his or her control are informed of the hazards related to their tasks and are thoroughly trained in safe work procedures, in particular with respect to shock, friction risk of fire, or static electricity, and are familiar with the requirements of the Explosives regulations
 - iii. prescribes all protective clothing and equipment to be used in the danger area
 - iv. ensures that the processes and equipment specified in schedule licenses are safe and appropriate for the manufacturing processes envisaged for the workplace.

- the supervising official
 - i. is at all times in a position to exercise control over the operations
 - ii. reports without delay to the explosives manager any plant or equipment under his or her control that has or may have posed a risk:
 - iii. ensures that all rules implemented in the interest of health and safety are at all times complied with;
 - iv. stops all work involving explosives if he or she becomes aware of any risk posed to the health and safety of persons.

C3.5.13.3 Safe handling of explosives

The contractor shall ensure that –

- all explosives or ingredients thereof are at all times free of foreign material;
- all reasonable precautions are taken to prevent the spillage of explosives;
- cleaning procedures in the case of a spillage of explosives are prescribed in writing by the explosives manager: Provided that where no cleaning procedures have been prescribed any unusual spillage of explosives shall be reported immediately to the supervising official;
- all waste, paper, timber, rags, cotton and similar materials that have been in contact with explosives or an ingredient of an explosive are disposed of in a manner prescribed in writing by the explosives manager: Provided that at the end of the working day all waste and floor sweepings from danger areas shall be deposited in the designated places;
- the explosives or partly mixed explosives are conveyed as soon and as carefully as possible and taking such precautions and in such a manner as will effectively guard against any accidental ignition or explosion
- only containers provided for the conveyance of explosives are used for transporting explosives or partly mixed explosives and that such containers are at all times kept clean, free from grit and in a good state of repair;
- vehicles containing explosives are left unattended only in designated places

The contractor shall ensure that –

- all material, equipment, tools or similar articles used in a danger area are decontaminated after such use, and that no person makes use of any such article that has not been decontaminated after use in a contaminated area;
- the certification of the decontamination process is certified and approved by the explosives manager or a person authorized by the explosives manager.

Unless permission has been granted by the chief inspector of occupational health and safety, no contractor shall use –

- explosives in workplaces other than explosives workplaces approved by the chief inspector of occupational health and safety;
- any explosives for which no provision is made in Explosives regulations.

No contractor shall allow unauthorized access to such explosives or bury, dump, hide or abandon any explosives.

No contractor shall use any explosive material for blasting purposes unless –

- he or she is in possession of a written permission issued by or under the authority of the chief inspector of occupational health and safety;
- he or she is undergoing training while using such blasting material under the immediate and constant supervision of a person who is in possession of permission

C3.5.13.4 Dangerous areas

The contractor shall ensure that entry and exit from danger areas is only permitted

- at the permanent authorized point of entry or exit: Provided that entry or exit at any other point may be authorized by the explosives manager or a person authorized by him if the authorized gatekeeper has been informed thereof;
- for persons and vehicles authorized thereto by the explosives manager or a person authorized by him;
- to visitors under escort by an authorized person who is aware of the hazards attached to the danger area.

The contractor shall keep a register of the entries and exits and that register shall be available on the premises for inspection by an inspector.

No person shall –

- enter the danger area with –
 - i. tobacco;
 - ii. matches, cigarette lighters or other devices capable of generating heat or spark sources;
 - iii. intoxicating liquor or narcotics;
 - iv. food, medicine or drinkable fluids: Provided that authorization to enter with such articles may be granted by the explosives manager for purposes of consumption in licensed mess rooms and smoking areas: Provided further that special rules for the control of such consumption and smoking, approved by the chief inspector of occupational health and safety shall be made in writing and shall be enforced by the employer, self-employed person or user; or
 - v. radio transmitters or cellular telephones; or

The contractor shall ensure that hazard warning signs are clearly displayed at the entrance to any danger area.

C3.5.14 VESSELS UNDER PRESSURE

C3.5.14.1 Manufacturer's data plate

Every user of a boiler or pressure vessel shall cause a manufacturer's plate with the following minimum particulars to be securely fixed in a conspicuous place to the shell of every such a boiler or pressure vessel:

- a) Name of manufacturer;
- b) country or origin;
- c) year of manufacture;
- d) manufacturer's serial number;
- e) name, number and date of the standard of design;
- f) design gauge pressure in Pascals; (design pressure)
- g) maximum permissible operating pressure in Pascals;
- h) operating temperature;
- i.) capacity in cubic meters; and
- j) mark of an approved inspection authority.

No person shall remove such a manufacturer's plate or willfully damage or alter the particulars stamped thereon.

C3.5.14.2 Portable Gas Containers

No user shall use or require or permit a portable gas container to be used, and no user shall fill, place in service, handle, modify, repair, inspect or test any portable gas container, other than in compliance with standards incorporated into the Vessels under Pressure regulations.

C3.5.14.3 Hand held Fire extinguishers

No user shall use, require or permit the use of a hand held fire extinguisher unless designed, constructed, filled, recharged, reconditioned, modified, repaired, inspected or tested in accordance with a safety standard incorporated into the Vessels under Pressure regulations.

No person shall fill, recharge, recondition, modify, repair, inspect or test any hand held fire extinguisher unless a holder of a permit issued by the South African Bureau of Standards in terms of SABS 1475.

C3.5.14.4 Gas Fuel use, equipment and systems

No person shall handle, store or distribute a gas fuel in any manner, including the filling of a container, other than in accordance with a health and safety standards.

C3.5.14.5 Inspection and test

Any user of a boiler or pressure vessel shall cause, where reasonably practicable, such a boiler or pressure vessel, including the appurtenances and automatic controls and indicators, to be subjected to an internal and external inspection, and a hydraulic pressure test to 1.25 times the maximum permissible safe operating pressure as the case may be –

- by an approved inspection authority before commissioning after installation, re-erection or repairs;
- by a person appointed in writing by the user and who is competent to do such inspections and tests by virtue of their training, knowledge and experience in the operation, maintenance, inspection and testing of a boiler or pressure vessel within 36 months from the date of the previous internal and external inspection and hydraulic pressure test: Provided that where a pressure vessel is not subjected to corrosion, the user may dispense with the internal inspection and hydraulic pressure test subject to the written approval of an approved inspection authority: Provided further that an inspector may require a specific boiler or pressure vessel to be inspected or tested more frequently or permit a specific boiler or pressure vessel to be inspected or tested less frequently:

C3.5.14.6 Recordkeeping

Any user of a vessel under pressure shall keep on his premises a record which shall be open for inspection by an inspector in which the results of inspections, tests, modifications and repairs shall be recorded, dated and signed by the competent person.

C3.5.14.7 Maintenance

No user shall use, cause or permit a vessel under pressure or gas fuel system, including all automatic controls, indicators and appurtenances, to be used unless it is at all times maintained in a safe working condition and the efficiency thereof is proved by regular testing.

No user shall use or cause or permit a vessel under pressure to be used unless it is kept clean and free from any:

- carbonized oil or other inflammable material which may ignite under working conditions;
- material which may cause corrosion; or
- material which is liable to chemical reaction which may cause an uncontrolled rise in pressure.

C3.5.15 PHYSICAL HAZARDS

C3.5.15.1 Ergonomics

- Ensure that assigned tasks do not exceed the limits of the performance capacities of the worker.
- Prevent injury or any detrimental effects to the health of the worker
- Provide that tasks and working conditions will not lead to impairments.

C3.5.15.2 Noise

No contractor shall require or permit an employee to work in an environment in which he is exposed to an equivalent noise level equal to 85 dB(A) or higher. The contractor shall reduce the equivalent noise level to below 85 dB(A) or, where this is not reasonably practicable, he shall reduce the level to as low as is reasonably practicable and take all reasonable steps to isolate the source of the noise acoustically. Where the equivalent noise level in any workplace cannot be reduced to below 85 dB(A) the contractor shall –

- prohibit any person from entering a noise zone unless such person wears hearing protectors.

The contractor shall provide, free of charge, hearing protectors to each employee who works in or, to any person who is required or permitted to enter a noise zone, and no contractor shall require or permit any person to work in or enter such noise zone, and no person shall work in or enter such noise zone, unless he wears such hearing protectors in the correct manner: Provided that where the equivalent noise level to which employees are exposed, is such that the attenuation of the hearing protectors does not reduce the said noise to below 85 dB(A) the employer concerned shall limit the time during which employees work in that noise zone in such a way that they are not exposed to an equivalent noise level equal to 85 dB(A) or higher.

The contractor shall properly instruct any person who is required to wear hearing protectors in the use of such protectors and inform him of noise zones where the wearing thereof is compulsory.

The contractor shall –

- ensure that every employee employed in a noise zone is subjected to audiometric examinations conducted in accordance with section 7 of SABS 083, by an audiometrist approved by the chief inspector;
- keep records of the results of each audiometric examination and make such records available for inspection by an inspector if he so requires; and

- keep such records for a minimum period of 30 years after termination of employment: Provided that if the employer ceases activities all such records shall be forwarded to the regional director.

C3.5.15.3 Vibration

Whole-body vibration occurs when the body is supported on a surface which is vibrating (e.g., when sitting on a seat which vibrates, standing on a vibrating floor or recumbent on a vibrating surface). Whole-body vibration occurs in all forms of transport and when working near some industrial machinery.

Hand-transmitted vibration is the vibration that enters the body through the hands. It is caused by various processes where vibrating tools or work pieces are grasped or pushed by the hands or fingers. Exposure to hand-transmitted vibration can lead to the development of several disorders.

C3.5.16 SITE WIDE ELEMENTS

C3.5.16.1 Site Access and Egress

- Access to the site will involve crossing the public footpath.
- Store materials and plant away from means of access for the general public and occupants.
- Remove rubbish and demolition materials regularly. Do not allow to accumulate on flat roofs.
- Maintain free access through designated means of escape at all times
- Agree with the Client / Client's Agent delivery points for materials before commencing works.

C3.5.16.2 Visitors to the site

- All visitors to report to the Principal Contractor's reception area for OHS Induction training.
- All visitors to sign the visitor's registration document.
- All visitors to be provided with a Visitors Permit to enable them to access the construction site.
- All un-inducted visitors must be accompanied on the construction site by an inducted person.
- No visitors shall be allowed to access the construction site without wearing the necessary PPE.

C3.5.16.3 Deliveries

Access will involve crossing the public footpath.

C3.5.16.4 Emergencies

Ensure that there are adequate escape routes and that they are kept clear at all times.

C3.5.16.5 Location of Temporary Site Accommodation

See Site Lay-out Plan.

C3.5.16.6 Location of Materials unloading and storage

Materials are to be unloaded and stored in locations which will not in any way affect access or egress to the site or the works.

C3.5.16.7 Traffic and Pedestrian Routes

The road, public footpaths and access way are to be kept open at all times. All necessary signage and barriers are to be put in place to protect pedestrians at the site entrance and access and egress points.

C3.5.16.8 Environment

See C3.5.

C3.5.16.9 Safety

Ensure that all employees are aware of the Health and Safety policy and put into place arrangements to ensure that all visitors and workers new to the site are aware of the site safety provisions.

Locate underground electricity cables, mark and take precautions to avoid.

Ensure that cartridge operated tools are operated by trained personnel and in accordance with the maker's instructions that the gun is cleaned regularly and kept in a secure place when not in use.

Protect people who may be exposed to health risks arising from hazardous substances.

C3.5.17 CONTINUING LIAISON

The procedures for consideration and evaluation of the health and safety implications of Contractor designed elements of the works must follow the

recognized principles of prevention and protection and take account of the issues highlighted in this OHS Specification.

The following information is to be submitted by the Contractor to the Client / Client's Agent in sufficient time to allow adequate consideration by the Client / Client's Agent and, where appropriate, the design team, and the provision of relevant information to those persons affected by the works, prior to the commencement of the relevant works:

- Suitable and sufficient information to demonstrate that health or safety issues have been adequately considered.
- Risk assessments.
- A list of health and/or safety hazards identified which cannot be designed out.
- A list of any materials or substances which are specified or inherent in the design which is potentially hazardous to health and/or safety.

C3.5.17.1 Unforeseen Eventualities

The following action is to be taken in the event of unforeseen eventualities arising during the construction stage of the project which require significant design changes, or affect the resources required to carry out the work without risk to health and/or safety, or have other health or safety implications.

The Client / Client's Agent and, where possible, the Principal Contractor are to be advised as soon as possible.

Full details of the relevant health and safety issues involved are to be reviewed with the Client / Client's Agent and Principal Contractor as soon as possible.

Full details of any revised designs, risk assessments and identified hazards and/or hazardous materials and substances are to be issued to the Client / Client's Agent and Principal Contractor in sufficient time to allow for the revision of the Health and Safety Plan and notification of all persons affected by the health and/or safety implications of the changes prior to the commencement of the affected works.

C3.5.17.2 Site Liaison

Liaise with all other contractors and implement any agreed changes to the Health and Safety Plan arising from such liaison. Set up regular training for all operatives including induction training for all staff upon arrival to site.

C3.5.17.3 Health and Safety File

Provide the Planning Supervisor with any relevant information which the contractor believes should be incorporated into the Health and Safety File.

C3.5.17.4 Design Development

Provide the Client / Client's Agent with all design information prepared by sub-Contractors.

Arrange liaison meetings with sub-contractors to discuss and review health and safety issues arising from the sub-contractors' designs.

C3.5.18 CONCLUSION

The hazards listed above were identified posing potential threats to the health and or safety of persons that will work on the contract. Although every effort were made to ensure that every possible hazard was identified OHSEC cannot guarantee this, therefore it is imperative for the contractor to conduct a comprehensive risk identification and hazard assessment in order to make certain that all hazards are identified.

C3.6 ENVIRONMENTAL ISSUES

The management criteria, objectives and actions are organized in this document according to generic groups of activities that are similar in nature. In reality, some of these may vary with different activities and environmental aspects.

C3.6.1 Site Establishment and Method Statements

The Engineers Representative and Contractor shall discuss, and plan the site layout and establishment in detail, including the production of a sketch plan showing the construction site layout designed to avoid the impacts discussed further on. This plan must be approved by the Engineers Representative prior to construction commencing. Thereafter, the Contractor shall provide all method statements detailing the construction programme, methods and associated plant. These details must be approved before construction commences. Any changes to a proposed method that could have significant environmental consequences shall be agreed upon with the Engineers Representative first, before proceeding with the change.

The boundaries of each individual active construction areas are to be determined and pegged at the initial site meeting. Since construction will occur in a working plant area, it is important to ensure that the active construction areas are fenced/barrier taped to prevent unauthorized access to the construction site. Plant operations must be informed of the proposed work and the potential dangers associated with the construction i.e. open excavations, wet cement, construction materials. Similarly, construction personnel are to be informed that encroachments into surrounding plant will carry severe penalties.

C3.6.2 Transport of Materials, Equipment and Staff to Site

This section covers the issues associated with the transport of construction material, equipment and staff to and from the site. The aim of this component is to ensure that the transport activities associated with the project do not impact significantly on the environment and the surrounding residents.

- Access to the construction sites will be via existing roads. The contractor will monitor the condition of the road in the vicinity of the construction areas and should the road be damaged due to construction activities, the road will be repaired within two days of detection/complaint/notification.
- Equipment lay-down areas and material storage areas must be discussed and agreed with the plant operations and specified in the Site Establishment Plan for each individual construction site.
- Lay-down and material storage areas must be located away from the banks of rivers to avoid any contaminated stormwater runoff from entering the rivers. In addition, stormwater diversion berms or cut-off trenches must be constructed around the lay down areas.
- All potentially hazardous materials i.e. fuel, oils and chemicals, will be stored in an acceptable manner. In addition, all hazardous material storage areas will be bunded, with a minimum of sandbags.
- In the event of a spill of construction material, either hazardous or non-hazardous, the material must be contained in an area as small as possible. The split material must then be removed and disposed of in a legally acceptable manner. In the vent of hazardous material

spillage and clean-up, a safe disposal certificate will be required. In the event of a spill the Engineer must be notified immediately.

- Drivers will reduce speed and exercise caution due to pedestrians and other road users, especially in the vicinity of the construction site.
- The contractor must ensure that the roads adjacent to construction areas are kept clear at all times and not blocked by construction vehicles or equipment.

C3.6.3 Excavation and Storage

This section deals with the earthworks to be undertaken during the construction period. The aim of this component is to ensure that the area of impact due to construction is minimized and all material excavated during construction is stockpiled in an appropriate manner.

- Material excavated must be stockpiled in designated storage areas as specified in the Site Establishment Plan. Material excavated must be stockpiled in the following manner.
 - The topsoil (top 30mm of the soil) must be excavated and stockpiled separately
 - The subsoil excavated and stockpiled at prior determined location.
- Long-term stockpiles must be stabilized to at least a 1:4 slope that are not longer than 20m.
- Any blasting or jackhammer operation will be limited to times when air movement is minimal and site operating hours (at present no blasting is anticipated, however it may be necessary in areas with rocky substrates).
- Material that is excavated may either be used in final site rehabilitation or must be disposed at a suitable spoil area. The Contractor, in consultation with the Site Engineer, will identify a suitable spoil area.

C3.6.4 Construction

This section deals with the construction and associated activities on the site. The aim of this component is to manage all possible impacts that may arise during the construction.

- All activities for construction e.g. concrete production will be located away from river banks with cut-off trenches or stormwater diversion berms constructed to ensure that any contaminated run-off does not drain directly into rivers.
- All waste i.e. construction and general, generated by activities on the site will be disposed of in a waste disposal area to be designated in the Site Establishment Plan. The area is to be equipped with suitable containers i.e. skips or bins, of sufficient capacity. The contents of the skips/bins will be disposed of at a permitted waste disposal facility when they have reached capacity.
- No fires will be allowed on site. All cooking undertaken on the site must be done on gas equipment.
- The Contractor will provide temporary ablution facilities i.e. chemical toilets, for construction workers for the duration of the contract. These toilets must be located away from the river. Workers must be warned that severe penalties will be imposed if they do not utilize the facilities provided.
- The construction site is to be kept neat and tidy i.e. good housekeeping practices to be implemented.

C3.5.5 Site Rehabilitation

This section deals with the site rehabilitation after construction is complete.

- On completion of construction, all unused material and waste must be removed from the site.
- All excavated material not utilized during the rehabilitation process must be disposed of at an appropriate spoil site.

C3.5.6 Working Hours

The construction site is located within populated rural areas, therefore all activities in the areas will be limited to between 07h00 and 17h00 during weekdays. Any work to be undertaken on weekends will be subject to the standard conditions laid down in the contract document. These working hours will be strictly enforced and no loitering of Contractor's staff will be allowed after

hours, except any security personnel appointed by the Contractor. Due to the remote location of the site accommodation may be provided. The method for the hiring of labour, if required, will be confirmed during the facilitation process.

C3.6.7 Complaints

A procedure for lodging of complaints must be established and this must be communicated to the surrounding residents.

- *Within 24 hours* the Contractor will report to the Project Manager the occurrence or detection of any incident at the site, or incidental to the operation of the site which has the potential to cause, or has caused water pollution of the environment, health risks or nuisance conditions or which is a contravention of the authorization conditions.
- *Within 7 working days* (or a shorter period of time) from the occurrence or detection of any incident, an action plan will be submitted, with a detailed time schedule giving measures taken to:
 - Correct the impacts of the incident;
 - Prevent the incident from causing any further impacts; and
 - Prevent a recurrence of a similar incident.

An incident report and complaints register is to be kept and made available to the site engineer.

C3.6.8 Compliance with Environmental Specification

The contractor is deemed not to have complied with the Environmental Specifications if:

- Within the boundaries of the site, site extensions and access roads there is evidence of contravention of clauses;
- Environmental damage occurs due to negligence;
- The contractor fails to comply with corrective or other instructions issued by the Project Manager or Clerk of Works within a specified time period;
- The contractor fails to respond adequately to complaints from the public.

Application of a penalty clause will apply for incidents of non-compliance. The penalty imposed will be per incident.

C3.7. MANAGEMENT

Management of the works

The management of the site shall be in accordance with the provisions of the SABS 1200 AA Specifications.

C3.8. PARTICULAR (PROJECT) SPECIFICATIONS: CIVIL

The Standard Specifications provide, in certain clauses, for a choice to be specified in the Construction Specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this Contract are contained in this part of the Specifications. It also contains some additional specifications required for this particular contract.

The number of each clause and each payment item in the Particular (Project) Specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the Standard Specifications. The number of a new clause or a new payment item, which does not form part of a clause or a payment item in the standard specifications and is included here, is also prefixed by B followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.

The Standard Specifications as well as the Particular (Project) Specifications refer to the 'Engineer' whereas the General Conditions of Contract for Construction Works, 2015, Third Edition, (GCC 2015) refer to the 'Employer's Agent'. In all cases where reference is made to the Engineer in the Standard Specifications or the Project Specifications, it shall have the same meaning as the Employer's Agent as defined in the General Conditions of Contract.

C3.8.1 SECTION 1100: DEFINITIONS AND TERMS B1107

CARRIAGEWAY AND FREEWAY

Add the following:

"The carriageway or freeway shall also mean the asphalt surface areas of the runways, RETs, and the concrete aprons."

B1115 GENERAL CONDITIONS OF CONTRACT

Replace Clause 1115 with the following:

The General Conditions applicable to this Contract are the General Conditions of Contract for Construction Works, 2015, Third Edition, (GCC 2015).

Accordingly, all reference in the Standard Specifications to any other General Conditions of Contract (GCC) has to be amended. The Standard Specifications have been scrutinised and clauses which refer to another GCC, identified. These are tabulated below together with the relevant equivalent clause in the GCC 1998 Conditions of Contract. The context of the reference to the GCC is also noted.

Whereas every effort has been made to include all of the affected clauses in the table, there may be some omissions. In every case, however, the GCC 2015 Conditions of Contract for Construction, as amended by the Special Conditions of Contract in Section C1.2 of this Volume, shall apply and the contractor shall be responsible for interpretation of the equivalent clause.

CHANGES TO ALL REFERENCES BY THE COLTO STANDARD SPECIFICATIONS TO THE COLTO GENERAL CONDITIONS OF CONTRACT AND 2015 GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS (GCC 2015)

COLTO Standard Specifications		Reference to COLTO General Conditions of Contract 1998 shown in the Standard Specifications		Equivalent reference to General Conditions of Contract for Construction, 3 rd edition, 2015, applicable to this Contract	
Clause No	Page No	Clause No	Description or Reference	Clause No	Description or Reference amended to
1115	1100-2		Definition of GCC		Definition GCC 2015
1202	1200-2	15	Construction programme	5.6	Construction programme
1204	1200-2		General reference to GCC		Applicable to GCC 2015
1206	1200-3	14	Setting out of works		Clause amended in 1206 of Specifications
1209(a)	1200-4		General references to GCC		Applicable to GCC 2015
1209(e)	1200-5	52	Valuation of material brought onto site	6.10	Valuation of material brought onto site
1210	1200-5	54	Certificate of practical completion	5.14	Certificate of Practical Completion
1212(1)	1200-7	49	CPA on alternative designs	6.8	CPA on alternative designs
1215	1200-9	45	Extension of time for completion due to abnormal rainfall	5.12	Extension of time for completion due to abnormal rainfall
1217	1200-10	35	Care of the works	8.2	Care of the works
1303(ii)	1300-1		General reference to GCC		Applicable to GCC 2004
1303(iii)	1300-1	49	Price adjustment Item 13.01(a)	6.8	Price adjustment Item 13.01 (a)
1303 (iii)	1300-2	49	Price adjustment Item 13.01(b)	6.8	Price adjustment Item 13.01 (b)
1303 (iii)	1300-1/2	53	Variations exceeding 15%	6.11	Variations exceeding 15%
1303	1300-2	12	Payment Item 13.01 (c)	5.3	Payment Item 13.01 (c)
1303	1300-2	45	Payment Item 13.01 (c)	5.12	Payment Item 13.01 (c)

1403(c) (ii)	1400-4	40 (1)	Variation for rented accommodation	6.4.1	Variation for rented accommodation
1505	1500-3	40	Variation for temporary drainage	6.4	Variation for temporary drainage
Item 15.08	1500-8	48	Payment of Provisional Sum	6.6	Payment of Provisional Sum
Item 15.09	1500/8	48	Payment of Provisional Sum	6.6	Payment of Provisional Sum
Item 15.11	1500-8	48	Payment of Provisional Sum	6.6	Payment of Provisional Sum
Note (2)	3100-4	40	Payment for prospecting for materials	6.4	Payment for prospecting for materials
3204(b) (iii)	3200-2	40	Payment for oversize material	6.4	Payment for oversize material
3303(b)	3300-2	2	Engineer's decisions, with reference to materials classification	3	Employer's Agent's decisions, with reference to materials classification
Item 44.06	4400-3		General reference to GCC, PC Sums	6.6.2	General reference to GCC, PC Sums
Item 45.06	4500-3		General reference to GCC, PC Sums	6.6.2	General reference to GCC, PC Sums
5803 (c)	5800-3	40	Variation, for landscaping	6	Variation, for landscaping
5805 (d)	5800-4	40	Variation, for grassing	6	Variation, for grassing
Item 58.10	5800-10	48	Payment for Extra Work	6.6	Payment for Extra Work
8103 (c)	8100-1	40	Variation, for testing material	6	Variation, for testing material
Item 81.02	8100-26		General reference to GCC, Provisional Sums	6.6	General reference to GCC, Provisional Sums
Item 81.03	8100-26	22	Clearance of site on completion, with reference to core drilling	5.15.1	Clearance of site on completion, with reference to core drilling

B1136 ROAD PRISM

Add the following:

"The road prism shall also mean the prism of the runways and taxilanes"

Add the following definitions and terms to Section 1100 of the Standard Specifications: (Also refer to the definitions provided in the Airside Manual – Volume 5)

B1156 AIRPORT ROADS

Airport roads are defined by a network of public and non-public roads within the airport boundary providing access to the various airport buildings or areas.

B1157 AIR TRAFFIC

Means all aircraft in flight or operating on the manoeuvring areas of an aerodrome.

B1158 CONTROL TOWER

Means an air traffic control unit was established to provide an air traffic control service.

B1159 INSTRUMENT LANDING SYSTEM CATEGORY I (ILS CAT I)

Means an approach and landing aid designed to identify an approach path for exact alignment and descent of an aircraft making a landing with a runway visual range of 800 m and a decision height of 60 m.

B1160 INSTRUMENT LANDING SYSTEM CATEGORY II (ILS CAT II)

Means an approach and landing aid designed to identify an approach path for exact alignment and descent of an aircraft making a landing with a runway visual range of 400 m and a decision height of 30 m.

B1161 INTERNATIONAL CIVIL AVIATION ORGANISATION (ICAO)

Means a specialised agency of the United Nations with a membership of 183 Contracting States as of August 1994.

B1162 LANDING AREA

Means that part of a movement area intended for the landing or taking off of aircraft.

B1163 THRESHOLD

The threshold is the beginning of that portion of the runway used for the take-off and landing of aircraft. The clearway is the area beyond thresholds.

B1164 PARTY, PARTIES AND THIRD PARTY

'Party' and 'Parties' means the Client and the Consultant and 'Third Party' means any other person or entity as the contract requires."

B1165 Airport Authority

This refers to the Newcastle Municipality as represented by its employees from its project management, airside operations, airside safety and Fire and Rescue divisions.

C3.6.2 SECTION 1200: GENERAL REQUIREMENTS AND PROVISIONS

B1202 SERVICES

Add the following after the second paragraph:

“The owners of services affected under this Contract are all under the control of the Airports Authority whose representative must be contacted regarding the location of all services in the construction area. Inspections shall be undertaken by means of the authority’s service detectors and such inspections shall be attended by the Contractor and the Engineer’s Representative. No payment shall be made to the Contractor for attending these inspections.

Protection and/or relocation of certain services will be required. The Engineer will issue instructions after location and exposure of these services. No large compaction equipment will be allowed to work within 10 m of any ground mounted frangible light fixtures or any other navigational equipment without approval by the Engineer. The contractor shall allow for a 1,5 ton sit-on roller or similar compaction equipment approved by the Engineer to work within 10 m of the navigational equipment. No additional payment will be made for work close to the equipment as specified above.”

Add the following to the sixth paragraph:

“The Contractor shall also be liable for any loss or consequential loss suffered by the owner of a service which is damaged by the contractor’s operations, e.g. loss of the ILS or Runway lighting due to a power failure.”

Add the following after the last paragraph:

“This work is planned to be executed in close proximity of approach, edge lights, fuel lines and runway closure crosses and must be executed without interfering with the operation of these lights. The contractor shall ensure that the position of the cables are known to himself and his personnel and shall take all reasonable care to avoid damage to the fuel lines, cables, lights or transformers. Protective covers and markers shall be used as required to protect the lights from being damaged or covered by products (e.g. bituminous) whilst the work is carried out. No additional payment will be made to protect the lights.

Should existing services be damaged, the contractor shall give adequate notice to all concerned and leave enough time after completing a particular work shift to allow for the reinstatement of the cables before opening the runway to air traffic.

Where applicable, existing edge and centre lighting systems for the runway and runways need to be kept operational during the course of the project. A number of these lights will need to be raised to match the new level of the surfacing. Payment for this work will be covered under pay item B12.08.

B1204 PROGRAMME OF WORK

(a) General requirements

Delete the first paragraph and add the following:

“The Contractor shall submit his programme within the time stated in the Contract Data to the Engineer for approval. The Contractor shall note that all works are to be completed in the 1 months duration, the Contractor shall include in his/her programme the works that maybe performed concurrently such to allow for all works to be completed within the 1 months programme. The programme shall be in the form of a bar chart (Gantt chart) or any other time-activity form acceptable to the Engineer, and shall clearly show:

- i) The proposed rate of progress in order to complete the Works within the required period as tendered, showing the various activities, their durations and proposed resourcing levels (major plant and labour) for each element of the Works. Sufficient detail shall be provided to enable the Engineer to be able to gauge construction progress. All activities, including establishment on site, trimming and finishing and the completion of all minor ancillary works are to be included in the programme.
- ii) The sequence of activities and any dependencies (time or resource related) between them.
- iii) The critical path activities.
- iv) The anticipated value of work to be done during each month.
- v) Other information specifically required by the Engineer

When drawing up his programme, the Contractor shall, inter alia, take into consideration and make allowance for:

- i) Working times and all other constraints stated in Volume 5.
- ii) Requirements of Clause B1230.
- iii) Expected weather conditions and their effects (Clause B1215).
- iv) Known physical conditions or artificial obstructions.
- v) The accommodation and safeguarding of public and air traffic.
- vi) Dealing with, altering and installing services.
- vii) The work to be undertaken by any sub-contractors. This work must be integrated into the programme of the main contractor.
- viii) All other actions required in terms of this contract.
- ix) Interim milestone dates and restrictions on the extent of work areas available at a given time (Section C3.5.1).
- x) Airside access for “normal hours” working as follows (if required):

MAIN ACTIVITY	DURATION	CLOSURE TYPE	WORK DAYS
Airport runway (Asphalt)	1 months	8Hrs day shift	Monday to Friday day shift with possible extension based on operation demand

Irrespective of the above, all construction times are still tentative up to the approval of the NOTAMS

- xi) Airside access for “after hours” working as follows:
All other hours not defined as normal hours
 - The above hours of access to airside may be later due to delayed aircraft etc. In addition, the vacation times on Saturday and Sunday mornings may be extended by 1 hour and 2 hours respectively. For programming purposes, the above times should be adopted.

The following details shall be submitted together with the programme:

- xii) The number of working hours per day, working days per week, assumed holiday or shutdown periods on which the programme is based.
- xiii) The overall labour and major plant resource levels on which the programme is based.
- xiv) The detailed traffic and construction equipment accommodation proposals on which the programme is based.
- xv) Sequence of work area closure to air traffic.

The Contractor shall base his initial programme of work on the scope of the work as described in the Scope of Works and the Bill of Quantities. This programme shall be reviewed on a regular basis by the Contractor in accordance with changing circumstances, delays and amendments to the work ordered by the Engineer as a result of further examinations made by him.

Minor revisions to the approved programme may be introduced from time to time by mutual agreement between the Contractor and the Engineer. Should the Engineer believe that a major revision of the programme is required, the Contractor will be notified in writing and a revised programme shall be submitted within two weeks of receipt of such a notification.

It should be noted that it is in the Contractor's interest to provide a comprehensive programme giving as much information as possible about the times allowed for the various activities as well as resources or other limitations affecting the programme, since the approved programme may be used to evaluate any claims in terms of the General Conditions of Contract for extensions of time.

Weekly Meeting:

The Contractor shall submit to the Engineer, before each monthly site meeting (or whenever instructed) copies of the following:

- (i) The Contract programme with progress charts and programme graphs updated to reflect the actual progress to date.
- (ii) A summary of progress on site over the week preceding the site meeting. The report shall be in the form of a detailed narrative to the Contract programme.
- (iii) Details of activities running late, indicating what steps have been or will be taken to ensure that the work is completed within the specified time.
- (iv) A report on all labour, plant and materials on site.
- (v) An Incident and or Accident Report that is fully detailed.

Weekly Meeting (Fortnightly Rolling) Programme)

This programme will be presented at the weekly meetings and will show the work programmed over the next fortnight. It will be updated weekly. This programme will show the activities planned for each shift in a specific

area, and will be subject to correlation with flight-schedules by the Airport Manager. The programme will show actual, projected and previous work.

Add the following subclause:

“(c) Safety and Contingency Plan

Within 14 days of award of the contract the Contractor shall draw up and submit a detailed Construction Method Statement addressing i.e. safety and contingency plan to NEWCASTLE MUNICIPALITY for approval. Once approved, the Construction Method Statement will form part of the Procedure Manual for Working Airside (Volume 5). The method statement shall include:

- (i) All measures to be implemented to comply with the requirements of the OHS Act (C3.7.1), Environmental requirements (C3.7.2) and the Procedure Manual for Working Airside (Volume 5).
- (ii) A contingency plan to deal with shifts interrupted by inclement weather, construction equipment breakdowns or emergency closures of the work areas.
- (iii) Special measures, such as back-up plant, to be implemented in normal shifts to comply with the specifications.

No work on the airside will be allowed until the Employer has approved the contractor's Construction Methodology Statement.

The cost of complying with the NEWCASTLE MUNICIPALITY approved method statement is deemed to be covered by the tendered rates for the contractor's general obligations.

The scope of work requires the temporary closure of certain facilities on the airside. The closure of any facilities and the period of such closures shall be arranged with the Airside Authority. Minimum notification periods are included in Volume 5.

B1205 WORKMANSHIP AND QUALITY CONTROL

Delete the second to fifth paragraph and replace with the following:

“The Contractor shall submit a proposed Quality Management Plan in accordance with ISO 9002 for this contract (Form C9). Confirmation of the Quality Management Plan shall be submitted to the Engineer, for his

approval within two weeks of the commencement date and prior to the commencement of construction activities. Once accepted by the Engineer the Contractor shall not deviate from it unless written notification of proposed changes have similarly been submitted and approved. The system shall record the lines and levels of responsibility and indicate the method and frequency by which testing procedures will be conducted.

The Contractor shall also appoint a Quality Manager who shall ensure that the Contractor's staff comply with the requirements of the Quality Management Plan.

Payment for work done will not be made until the results of the Contractor's process control testing have been submitted and the Engineer has approved the work. The Engineer shall conduct such tests as he may deem necessary to verify the process control test results and shall retain all rights as determined in the General Conditions of Contract related to bad workmanship or unacceptable materials. This shall also be applicable to accepted alternative (mix) designs and related specifications."

Insert the following new subclauses:

(a) "External testing house

An external testing house will be appointed by the Engineer to undertake verification quality control testing of construction materials and workmanship by means of laboratory testing at an external testing facility to confirm results of the combined laboratory on a selected sampling basis. All sampling and testing by the external testing house will be done on the instruction of the Engineer. Materials will be sampled on site or at commercial supply sources or at the contractor's asphalt or concrete plant and will be tested the following day. Results will be reported to the Engineer for interpretation and possible action. The external testing house will invoice the Contractor (nominated subcontractor) for the cost of material sampling and testing and for reporting the test results to the Engineer. This cost will be reimbursed under the provisional sum item on approval of the Engineer.

The contractor will be required to accommodate and support the sampling procedures of the external testing house during the course of the contract. Representatives of the Engineer and the testing house will be allowed to inspect any stockpile, storage facility or processing activity for the purpose of quality control.

(b) External testing house used as combined laboratory

The contract will utilize an external testing house as a combined laboratory. Testing shall be undertaken by a combined external testing house laboratory facility for process control (where the process control testing can be utilised as acceptance control), acceptance control and correlation testing subject to the following requirements laid down by the Employer:

(i) The contractor accepts the test results of the combined laboratory. Should there be any doubts with regard to certain test results, this will be settled by an independent laboratory mutually agreed upon. The cost in such cases will be to the account of the party at fault.

(ii) The contractor accepts that the Engineer will be in charge of the combined laboratory.

(iii) The external testing house must supply a suitable qualified material technician (with at least 10 years asphalt paving quality control experience). The material technician will be responsible for paving quality control (that includes but not limited to temperature control of asphalt, recording of compaction effort, recording of stoppage and prevention of cold joints, inspection of the surface prior to tacking). This material technician must be approved by the Engineer before commencement of any works.

(iv) The contractor must install suitable infrared sensors on the paver to record the material temperature on a continuous basis and these results must be available to the external laboratory and Engineer.

(iii) The contractor accepts the costs reduction factor as described below.

The total cost of the combined laboratory for the 8 months contract period has been estimated at an amount of R100 000.00 per month, which is included in Pay Item B14.11(a). The contractor's contribution to the combined laboratory shall be a minimum of 30% of the amount claimable by the external testing house. This amount shall either be deducted from the Pay Item or the contractor can, with the Engineers approval, provide a combination of deducted amount, transport, additional staff or other means equating to the 30% value."

B1206 THE SETTING OUT OF WORK AND PROTECTION OF BEACONS

Add the following to this clause:

“In order to comply with Clause 1206 of the Specification the Contractor shall contract or employ a professional land surveyor and supporting team who will check the reference and level beacons. Agreement shall be reached with the Engineer on the values of the beacons to be used. It is the Contractor’s responsibility to maintain and protect all reference beacons.”

Replace the requirements of the second to the third last paragraph with the following:

“There are a limited number of official reference and level beacons on the airport. Where necessary the Contractor shall place additional reference beacons on all sides of the work areas for accurate setting out and levelling purposes. These beacons shall be placed in concrete, marked and certified by a professional land surveyor. Beacons shall be check-levelled during construction to confirm the accuracy when instructed by the Engineer.

All existing paint markings shall be referenced prior to any milling or paving activities for setting out after the completion of the overlay. The contractor shall provide a survey of the existing markings to the Engineer who shall then review and amend as necessary before providing the final marking drawings. Setting out of the final paint marking positions must be done as specified on these supplied drawings. These shall be checked and agreed with the Resident Engineer in writing before final application.”

On Runway Alpha, all existing airfield ground lighting shall be referenced prior to any milling or paving activities for setting out after the completion of the overlay. The contractor shall provide a survey of the existing lights to the engineer who shall then review and amend as necessary before providing the final marking drawings. All airfield ground lighting on Bravo and Juliet runways shall be placed in line with the drawings provided. These drawing must be checked and verified by surveyor and engineer prior to application.

In the last paragraph, the first part of the sentence shall be changed as follows:

“The setting out of level beacons and level control pegs, the measurement of the existing levels and the setting out of the final levels for construction purposed shall not be measured and paid for directly, and ...”

B1207 NOTICES, SIGNS AND ADVERTISEMENTS

Delete the final paragraph and replace with the following:

“All signboards erected in accordance with the drawings or as approved advertisements for the Contractors establishment, shall be removed at the same time as the Contractors de-establishment. Payment under subitem B13.01 for the final instalment of 15% of the tendered lump sum shall not be made unless all the advertisements, notices and temporary signs have been removed.”

B1209 PAYMENT

Add the following to the first paragraph of Clause 1209(b):

“VAT shall be excluded from the rates and added as a lump sum to the total value of work measured for payment.”

(c) The meanings of certain phrases in payment clauses

(i) Procuring and furnishing...(material)

Add the following:

“Payment for procuring and furnishing material from commercial sources shall include all transport costs, irrespective of distance hauled.”

Add the following new subclauses:

(g) Work in restricted areas

All work in restricted areas shall be allowed for in the tendered rates in the Bill of Quantities. No additional payment or claim will be entertained for restricted work.

(h) Rates to remain unchanged when scope of work changes

Dependent on the rates and prices offered in the Pricing Schedule, the employer intends to increase or reduce the scope of work to match the budget allowed for this project. To this end the contractor has been provided the opportunity to price separately for unit rates of work and the establishment of major plant. The value of such increase or reduction in the scope of works shall not give cause for the contractor to vary the offered rates and prices, which shall remain final and binding for the duration of the contract, provided that:

- (i) Notification of the change to the scope of work is given in writing within 28 days of the tender closing date.
- (ii) The value of the increase or reduction in the scope of work does not alter the tendered sum by more than 20%."

B1215 EXTENSION OF TIME RESULTING FROM INCLEMENT WEATHER AND DELAYS CAUSED BY ACTIONS OF AIRPORT AUTHORITY

Delete the entire clause and replace with the following:

Change the existing heading of clause 1215 to read as above and wherever the expression 'abnormal rainfall' is encountered replace it with 'inclement weather' and make the following changes to Method (ii) (Critical-path method) which will apply to this Contract:

Add the following as a new paragraph:

“(a) Extension of time resulting from abnormal rainfall, very cold weather or other forms of inclement weather shall be calculated according to the requirements of Method (ii) (Critical-path method). The value of “n” working days per calendar month as specified in this clause shall be as given in Table B1215/1 below. If no abnormal rainfall or other inclement weather periods occur during a specific calendar month (or months), the n-values as specified shall not be taken as accumulating over the contract period. If the “n”-days allowed for in the programme of work are not taken up by standing time due to abnormal rainfall or inclement weather conditions, they will fall away and will not be considered in extension of time claims that may arise later during the contract period.

Table B1215/1: Average ('n') delays due to inclement weather

Month	Jan*	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec*
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'n' days delay	5 (4)	5	4	3	2	1	2	1	2	4	6	5 (3)
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*If the Contractor programmes to close during the traditional Christmas/New Year break, the days for December and January shall be reduced as shown in brackets.

The value 'n' is the average number of days on which it is expected that there will be inclement weather at OR Tambo International Airport.

The Engineer's Representative will certify a shift loss due to cold weather, abnormal rain or adverse weather conditions based on the following criteria:

- (i) No work was possible during the relevant shift on any item which is on the critical path according to the latest approved construction programme, given that sufficient temporary drainage of work areas was provided, or if
- (ii) Less than 50% of the work force and plant planned for that specific shift could work.

Actual extensions of time due to inclement weather shall be agreed between the Engineer's and Contractor's representatives on the site. The agreed shifts or parts thereof shall be recorded at the bi-weekly site meetings and adjustments made to the contract period on a bi-weekly basis by extending the contract period according to the number of shifts lost less the allowance 'n'. At the end of the contract, the Engineer shall prepare a variation order to formalise the payment of the accumulated delays in excess of the allowance due to inclement weather.

(b) Extension of time resulting from delays during shifts caused by the airport authority shall be allowed for by the contractor in the construction programme. The number of working days to be allowed for in the Contractor's programme and pricing is 30 days for the full contract period. The criteria listed in (i) and (ii) above will also apply to this extension of time. Losses within the 30 days delay period are deemed to be covered in the rates tendered for the items of work. No extension of time will be claimable until such time that the 30 days has lapsed.

Time lost during shifts shall be agreed between the Engineer's and Contractor's representative on site. The agreed shifts or parts thereof shall be recorded at the bi-weekly site meetings and adjustment made to the

contract period on a bi-weekly basis by extending the contract period according to the number of shifts lost less the allowance. At the end of the contract, the Engineer shall prepare a variation order to formalise the payment of the accumulated delays due to the Airports Authority. Losses for the first half- hour of delay are deemed to be covered in the rates tendered for items of work.

If the approved total extension of time (for delays due to inclement weather and Airport Authorities) extend the completion date beyond the start of the contractor's holiday in December, the holiday period shall not be considered as working days. Any remaining extension of time at this date shall be calculated from the first statutory working day in January the following year, provided that the contractor has shown in his programme that he intends to close during the traditional Christmas/New Year break."

B1219 WATER

Add the following to the first paragraph:

"Water for construction purposes will be made available near the site camp. The contractor will include in his rates for any connections, couplings or a standpipe and will provide a water meter to measure the water used for construction purposes. Water will be purchased from NEWCASTLE MUNICIPALITY at R10 per kilolitre. The contractor shall allow in his rates for annual municipal increases. NEWCASTLE MUNICIPALITY will invoice the contractor on a monthly basis for use of water. The first municipal water increase will be on 1 July 2020."

B1225 HAUL ROADS

Add the following:

"The usage and selection of haulage roads on the employer's (NEWCASTLE MUNICIPALITY) premises and on the site will be coordinated on a daily basis between the Contractor, the Engineer's Representative and the Employer's representative."

Add the following new clauses:

"B1230 PROJECT CRITERIA AND REQUIREMENTS AT OPERATIONAL AIRPORTS

Note the special Safety Regulations in Volume 5 will strictly apply to this Contract. In the case of conflict with the following clauses Volume 5 will supersede this section.

Where work has to be executed on or in the vicinity of an operational airport, such work shall be subject to various special conditions and regulations as listed below in order to guarantee and safeguard the operation of the airport at all times.

The following criteria should be borne in mind when the programme is compiled

(a) Airport management and air traffic control responsibilities

The Airport Manager (AM) and the Air Traffic Controller (ATC) are ultimately responsible for the safe and efficient operation of the airport.

The AM or designated representative will in his official capacity have authority to give the Contractor verbal or written orders on matters concerning the operation, security or safety of the airport and the Contractor shall, after having informed the Engineer of the orders, carry out the instructions as if issued by the Engineer.

The ATC is responsible for the safe movement of all aircraft traffic, both in the air and whilst on the ground. The ATC shall at all times have absolute authority regarding the movement of any construction personnel, vehicles or equipment, where such movement takes place within the obstruction free areas of existing facilities or may affect the safe movement of the air traffic, and his instructions shall be implicitly obeyed. The ATC's decision regarding the acceptability and programming of the Contractor's activities within the above-mentioned areas shall be taken into account and may result in reprogramming of work where considered necessary.

All liaison with the AM or ATC shall be arranged through the Engineer and the Contractors Traffic Safety Officer.

(b) Radio communication on the airport

Refer to Clause 14 of Volume 5.

Two handsets must be provided to the Engineer for this purpose and must be handed over in a working condition to the Employer at the completion a radio operator's basic (PARTAC) course at NEWCASTLE MUNICIPALITY

before commencement of work. The staff shall be in possession of their own radio to communicate with the tower when accessing the airside. The Contractor's traffic safety officer and the Construction Manager shall complete a radio operator's basic course at NEWCASTLE MUNICIPALITY before commencement of the works. The Contractor shall be responsible for any maintenance costs, damages or loss of these sets. Payment Item B14.03(xxiv) shall be deemed to include all costs of the Contractor in this regard (including training of relevant personnel).

(c) Airport security

Refer to Clause 16 of Volume 5.

(d) Movement on the airport

Refer to Clause 17 of Volume 5.

The crossing of any operational facility on the airport will require special control as ordered by the ATC or the airport manager and will be limited to pre-determined points as indicated on the drawings or instructed by the Engineer. The required controls may include any of the following:

(i) Unrestricted crossings used by the Contractor should be linked with a pre-warnings system that notifies the Contractor that the facility will be required for airport use within a

certain period after notification.

(ii) Flagmen at crossing points, allowing movements across the facility whenever aircraft traffic permits.

(iii) Radio controlled crossing points, where movements across the facility may only take place after receiving clearance from the ATC.

(e) Additional requirements regarding construction activities

(i) Identification numbers

All construction vehicles and self-propelled equipment to be utilised within the airport security area shall be fitted with a boldly displayed identification number (minimum dimension 600 mm, line thickness 75 mm) on a white background on either side of the vehicle or equipment. A record of all identification numbers and related vehicles shall be available

at all times for perusal by the authorities or the Engineer. The cost for providing and using these identification numbers must be included under Pay Item B13.01.

(ii) Crossing points

The surface of existing facilities at crossing points shall be absolutely clean whenever aircraft uses them. This will require the full-time presence of a cleaning team at such crossings to remove all debris, stones or other material from the surfaces. The Contractor shall be responsible for any damage to aircraft or other equipment as a result of failure to comply with this requirement.

(iii) Barricades, lights and markings

The Contractor shall provide, erect, maintain, move and finally remove temporary barriers, fences and markings all as prescribed by the airport authorities or as shown on the drawings. The work shall include the placing of temporary barriers where runways or runways have been closed as well as lights at these points to facilitate night-time interpretation of the situation. It may also include the painting of markings and the final removal thereof.

(iv) Dust and pollution

The Contractor shall control dust in all working areas, at borrow pits and on haul roads to the satisfaction of the airport authorities. No pollution from machines, batching plants, mixers, workshops or other sources (such as the breaking up of existing work) will be tolerated. Fires may only be lit after the Contractor has obtained written permission from the airport authorities who will also supervise the fires.

The Contractor shall keep the entire site of the works, including his own camp site, in a neat and clean condition to the satisfaction of the airport authorities.

(f) Traffic safety officer

Refer to Clause 9.8 of Volume 5.

A traffic safety officer shall be appointed by the Contractor. This person shall be a senior member of the site management team who has been duly authorised to perform his duties on his own initiative and to exercise control over others. He must also complete a communications training course successfully at the Airport Control Centre after which a license will be issued to him. He shall be on site full-time during the execution of the works and general site safety shall at all times be his first priority. The traffic

safety officer shall liaise directly with the Engineer, airport control and air traffic control regarding matters related to safety.

In addition to the tasks specified in the Airside Manual the traffic safety officer will also be required to perform the following duties and this list shall not be deemed to be complete:

- (1) Responsible for keeping the traffic requirements up to specification 24 hours a day, 7 days a week.
- (2) Inspect and report to the Engineer on the state of all required signs and marks (and all traffic accommodation facilities) as often as the Engineer may require but in any event not less than twice a day.
- (3) Responsible for exercising control over the safe movement of personnel vehicles and plant on site according to the instructions of air traffic control.
- (4) Attend to the training and performance of flagmen and all other personnel involved in the control of traffic.
- (5) Responsible for compliance with prescribed measures at aircraft crossings.
- (6) Responsible for compliance to air traffic controller's instructions.
- (7) Responsible for daily final inspection of work areas prior to re-opening thereof.

(g) Provision of Permits

The Contractor shall note that it is a condition of the contract that he applies for and obtains the required permits for all persons, equipment and vehicles to be utilized during the construction of the planned works.

The onus shall be on the tenderer to verify these costs prior to completing his tender

viii. Windrow of material

During the improvements of the side strips for runways, materials will be temporarily windrowed outside the work areas. No windrows shall be allowed within 37.5 m of the runway edge of runways of any threshold. Windrow heights shall also be managed to ensure that they do not exceed NEWCASTLE MUNICIPALITY maximum obstacle height requirements.

B1231 CONTRACTOR'S ESCORTS

Escorts will be provided by the Contractor to lead all the construction team onto site and to serve as official communications port between the construction team and Air Traffic Control or Airport Management. The construction team will not be allowed to enter or operate on the airside facilities unless being escorted by a qualified escort. All escorts will be in possession of radio licenses to enable them to cross the runways and runways. The contractor is responsible for the cost of the escorts.

The Contractor will nominate one or more persons (own site management staff) to accept the duties and responsibilities of an escort if and when required by the Airport Authority. The following conditions will apply:

(a) The nominated person/s (Contractor's escort) need to have passed the applicable training and examination as specified by Airport Authority (including induction course, radio communications, etc.).

(b) The Contractor's escort shall have a vehicle suitably equipped for driving airside. Equipment shall include amongst others a suitable communication device as specified by ATC required to communicate with Air traffic Control and Airport Management, signage and lights.

(c) The Contractor's escort may only be used if Airport Management is not able to provide the required escort services if and when required by the Contractor. The Contractor needs to be provided with written approval by the Engineer before the Contractor's escort will be allowed to substitute the official airport management's escort.

(d) The Contractor's escort shall at all times be in radio contact with Air Traffic Control and the Engineer's safety controller and physically with the construction team. He will not be allowed to leave the site until such time that he has been relieved of his duties by a replacement escort and if approved by Air Traffic Control.

The Contractor will be able to recover the cost of carrying out the duties and responsibilities of the Contractor's escort in the Bill of Quantities. The cost of lights and radio's must be included under Pay Item B13.01.

B1232 MEASUREMENT AND PAYMENT

C3.8.3 SECTION 1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

B1302 GENERAL REQUIREMENTS

(a) Camps, constructional plant and testing facilities

Add the following to the first paragraph:

“The site for the contractor's office and stores as well as the engineer's office and laboratory will be within NEWCASTLE MUNICIPALITY 's premises (Landside) and is indicated in the Key Plan Drawing (Volume 4). The contractor shall provide 24-hr security at the camp site as well as a dedicated smoking area under roof as required in terms of legislation. The cost of this will be deemed to be included in item B13.01.”

Add the following new subclause:

“(d) Contractor's ablution facilities

The Contractor shall provide sufficient portable chemical latrine units at the work sites as required by legislation i.e. 1:30 employees and catering for males and females. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the approval of the Engineer. No separate payment shall be made for this requirement and the costs thereof shall be deemed to be included in the rates tendered for the Contractor's time-related obligations.

B1303 PAYMENT

“Item Unit

B13.01 Contractor's general obligations Month

Insert the following paragraph after the fourth paragraph:

Item B13.01 shall include costs for direct plant and labour costs incurred throughout the contract duration. Rates under this item shall include for any additional direct plant, operator and labour costs incurred by the Contractor. This contract has no provision for standing time.

The contractor shall not price for additional compensation for his obligations under B13.01 in the tendered rates and/or lump sum of items in the schedule of quantities over and above the total tendered for item B13.01.

P&G for subcontractors shall be included in item B13.01 within the main contractors pricing (rates)

Delete the 17th paragraph commencing "The tendered rate per month for subitem 13.01(c) "and replace with:

"The tendered rate per month for subitem B13.01(c) represents full compensation for that part of the contractor's general obligations, which are mainly a function of construction time. The tendered sum will be paid monthly, pro rata for parts of a month, from the Commencement Date until the end of the period for completion of the works, plus any extension thereof as provided in the general conditions of contract, provided that".

Add the following at the end of this pay item:

"The amount payable to the contractor for time related costs arising from extensions of time granted by the employer, where the contractor is fairly entitled to such compensation in terms of the General Conditions of Contract, shall be calculated as follows:

- (i) Account shall be taken of all time related items scheduled in Section 1300, 1400 and 1500
- (ii) All pay items for which the unit of measurement is "month" shall be deemed to be based on a 23-day working month."

Add the following to this pay item:

"The rate will include for the cost of all Escort requirements as specified in Clause B1231."

Add the following pay items for the Environmental obligations ((Clause EP 8)):

"Item Unit

B13.02 Compliance with Environmental Specification:

- (a) Time for environmental training... Lump Sum
- (b) General compliance with Environmental Specifications Lump Sum

(c) Penalty to non-compliance with Environmental Specifications (Per occurrence)... negative Number (No)

The tendered rate shall include full compensation for all activities and costs associated with environmental training as described in the Environmental Specification under C3.7.2. Payment shall be made on completion of the training.

The Contractor shall include a rate for general compliance with the Environmental Specifications . Failure to provide any item or comply with any instruction of the Responsible Person will be cause for non-payment of the whole lump sum and for ordering the cessation of works.

Item B13.02(c) makes provision for the deduction of penalties in terms of Clause EP 7. 4.2 under C3.7.2.

Records and penalty allocations of any non-compliance with the Environmental Specifications shall be recorded by the Engineer and the total allocation of the penalties shall be deducted as a negative lump sum from each month's payment certificate.

C3.8.4 SECTION 1400: HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL

B1402 OFFICES AND LABORATORIES

(a) General

Add the following:

"The Resident Engineer's offices shall, amongst other things, have one room at least 6 x 3.5 meters to serve as a conference room. All offices and laboratories shall be supplied with approved burglar proofing."

(b) Offices

Add the following subitems:

"(xviii) Whiteboards of 1,5 m and 1,0 m fixed to wall, with tray and four different colour pens.

(xix) Each bookcase shall be at least 0,9 m long, 0,9 m high with three shelves."

(c) Laboratories

Add the following:

"For the purposes of this Contract, commercial laboratory testing shall be used for acceptance control purposes."

(d) Car ports

Replace the last sentence with the following:

"The carports shall be provided with at least 80% shade netting."

B 1404 SERVICES

The following subclause shall be added to clause 1404 of the Specifications:

(e) First Aid

The Contractor shall provide a first aid kit at the site offices. No separate payment will be made and the Contractor shall allow for this in his tendered rates for accommodation for supervisory staff."

B 1406 MEASUREMENT AND PAYMENT

"Item Unit

B14.03 Offices and laboratory fittings, installations and equipment:

(a) Items measured by number

Add the following new subitems:

- (xix) Kitchen sink with drain board complete... Number (No)
- (xx) Electric kettle... Number (No)
- (xxi) Provision of approved amber strobe lights Number (No)
- (xxii) NEWCASTLE MUNICIPALITY approved lime coloured reflective safety jackets
(With lettering) Number (No)

- (xxiii) Rechargeable 500 000 candlelight halogen lamps Number
(No)
- (xxiv) Two-way handheld radio VHF/AM Dittel FSG5 complete with charger, carrying bag with strap and vehicle magnetic antenna including adapter
cable Number (No)"

Add the following new subitems:

(b) Prime-cost items and items paid for in a lump sum:

"Item Unit

- (ix) The provision of the cost of cellphone calls and unlimited wireless connection for data communication in connection with site supervision and contract administration Provisional Sum
- (x) Handling costs and profit in respect of subitem B14.03(b)(ix) above. Percentage (%)

The tendered rates shall collectively include full compensation for providing the furniture and equipment as specified."

“Item Unit

B 14.10 Provision of copying facility month

Amend this pay item description to read “Provision of copying facilities” and in the payment prescription, amend “photocopier” to read “combination colour printer/copier/scanner/facsimile machine”.

Add the following

“The tendered rate shall only be paid from the date that all services are operational and approved by the engineer.”

Add the following new Items:

“Item Unit

B14.11 Combined Commercial laboratory testing

- (a) Actual cost of testing Provisional Sum
- (b) Contractor's charges in respect of sub item B 14.11(a) above
 Percentage (%)

Expenditure under this item shall be made in accordance with the general conditions of the contract.

The provisional sum is allowed to cover the cost of all authorised testing carried out by commercial laboratories or academic institutions on the instructions of the Engineer, as well as the transport of the relevant samples. The Contractor shall be required to pay for all testing instructed by the Engineer and carried out by a commercial laboratory and the Contractor shall be reimbursed for the invoiced costs. Measurement and payment shall be based on invoices submitted to the Engineer.

The item does not include for the Contractor's own control testing of workmanship and materials. Also refer to B1205 regarding the incorporation of Combined Laboratory as applicable to this contract and approved by the Engineer.

The tendered percentage is a percentage of the amount actually spent under sub item (a) and shall include full compensation for all charges and incidental costs of the Contractor, profit and overheads in connection with the laboratory testing.

Payment for expenditure under this item will be made in full as and when the money is expended subject to written proof by the Contractor of payment of the amounts. No payment other than that provided above will be made in respect of laboratory testing

B14.12 Services of labourers for the Engineer

- (a) Actual cost of wages Provisional Sum
- (b) Handling costs in respect of subitem B 14.12(a) above.....
Percentage (%)

Expenditure under this item shall be made in accordance with the general conditions of the contract. The provisional sum allowed above shall be the actual cost incurred in the employment of the labourers for the use of the Engineer.

The tendered percentage is a percentage of the amount actually spent under subitem (a) and shall include full compensation for all charges for accommodation and transport, the handling costs of the Contractor and shall include all charges for documents and levies to local and other authorities, profit and overheads in connection with providing the semi-skilled labourers.

Payment for expenditure under this item will be made in full as and when the money is expended subject to written proof by the Contractor of payment of the amounts. No payment other than that provided above will be made in respect of the semi-skilled labourers for the Engineer. The payment shall not be subject to contract price adjustment."

C3.8.5 SECTION 1500: ACCOMMODATION OF TRAFFIC

B1502 GENERAL REQUIREMENTS

Add the following to clause 1502:

This Contract is divided into limited occupation areas in order to allow for the airport to be fully operational during construction. All occupation areas will be over a short duration (e.g. for night shift works). The Contractor shall inform and obtain approval from the Airport Authority prior to closing any runway/RET/runway for construction. The requirements of Volume 5 and Clause B1230 shall be fully adhered to by the Contractor. The Contractor is also to note that escort services are to be provided by the contractor for vehicles entering the restricted area to areas where work is taking place (see Clause B1231).

Details of the envisaged Phasing of the work are contained in Volume 4 (Book of Drawings) and also in C3.5 of this document. If the Contractor wishes to deviate from these details in any way, the Contractor shall request approval for such deviation and if approved shall keep the Airport Authority and the Engineer fully informed of changes."

Add the following new sub-clauses:

(j) Night work

All plant used on site shall be equipped with suitable lights including flashing amber lights to enable the work to be properly performed and controlled at night. Night work will only commence if, according to the Engineer, the Contractor provides all equipment, personnel and stand-by reserves to execute the work at night as if in normal daytime hours.

Payment shall be made under item B15.15 for provision of the lighting for the whole working site in work areas as specified above.

The Contractor shall provide for artificial lighting to ensure the proper execution of the work in terms of the contract. The artificial lighting shall be subject to the Engineer's approval and shall consist of at least the following:

(i) At least 3 floodlight towers per work area shall be provided when works are performed during the night shift. A work area is defined as an area of radius 15 m in which night work is being done. The Contractor shall

provide adequate lighting at night as specified for every work area. The light in a work area shall be a minimum of 75 lux.

(ii) The power systems shall comply with the Occupational Health and Safety Act No 6 of 1993 as amended, and the Standard Regulation for Wiring of Premises of the South African Institute of Electrical Engineers.

No additional payment will be made to the Contractor over and above payment for the Contractor's general obligations for providing and maintaining all extra personnel and equipment for executing night work.

Upon request by the Engineer or his representative, the Contractor shall make available a mobile flood light tower for use by the Engineer's staff. Payment for this request shall be made under item B15.16 "

C3.8.7 SECTION 1700 CLEARING AND GRUBBING

B1702 DESCRIPTION OF WORK

(c) Conservation of Topsoil

Add to the end of the 1st paragraph:

"The depth of the topsoil removal shall be reliant on the terrain, suitability of material and topsoil requirements of the work. Failure of the contractor to comply with the removal of topsoil, and/or failure of the contractor to protect the topsoil for later reuse shall result in the contractor having to provide topsoil at his cost."

B1703 EXECUTION OF THE WORK

Add the following new subclause:

"(f) Windrow of Topsoil and management of windrows

During the improvements of the shoulder areas strips for runways, materials will be temporarily windrowed outside the work areas. No windrows shall be allowed within 37.5 m of the runway edge within 150m of any threshold. Windrow heights shall also be managed to ensure that they do not exceed NEWCASTLE MUNICIPALITY maximum obstacle height requirements"

B1704 MEASUREMENT AND PAYMENT

Amend the following pay items as follows:

“Item Unit

B17.01 Clearing and grubbing:

(a) On and next to shoulders hectare (ha)”

Add the following new pay items as follows:

“Item Unit

B17.07 Removal of topsoil to windrows and/or temporary stockpiling at designated locations outside strip areas (unlimited free-haul)

(i) Topsoil in windrows alongside the work areas cubic metre (m3)

The unit of measurement shall be the cubic metre of topsoil removed to either windrows alongside the construction area or to temporary stockpiles (applicable to areas where temporary windrows are not allowed) where instructed by the engineer. The moving of topsoil from windrow or the loading of topsoil from temporary stockpiles and the placing and spreading thereof within the strip areas after shaping, is covered in Section 5800.

The contractor shall constantly liaise and agree with the engineer as to the depth of topsoil to be removed. The rates tendered shall include full compensation for all plant, equipment and labour for the excavation of the topsoil and where required, the loading and hauling thereof to temporary stockpile(s) as well as the maintenance of the windrows and stockpiles until re-use of the material.

C3.8.8 SECTION B1800: DAYWORKS

Add the following section to the standard specifications:

“Contents

B1801 Scope

B1802 General Requirements B1803 Measurement and Payment

B1801 SCOPE

This section covers the listing of daywork items in accordance with the general conditions of contract clause 6.5, for the use in determining payment for work which cannot be quantified in specific units in the schedule of quantities, or work ordered by the engineer during the construction period which was not foreseen at tender stage and for which no applicable rate exists in the schedule of quantities.

B1802 GENERAL REQUIREMENTS

Work will be classified as daywork only if the Engineer considers no other rate in the Bill of Quantities appropriate for payment purposes.

An instruction regarding all work to be carried out under daywork in terms of Clause 6.5 of the General Conditions of Contract will be issued at the discretion of the Engineer. Some or all of the items priced under daywork in the Bill of Quantities may possibly not be required for this Contract.

The Contractor and the Engineer will agree on the method of recording the working hours prior to the commencement of the work. Any long period of idling at any one time which in the opinion of the Engineer or his representative is beyond that required for normal operating conditions will not be paid for as working time. Non-working hours for any reason shall not be measured for payment.

Before ordering any material, the Contractor shall submit quotations to the Engineer for his approval, and shall submit such receipts or vouchers to the Engineer as may be necessary for proving the amount claimed.

B1803 MEASUREMENT AND PAYMENT

“Item Unit

B18.01

(a) Personnel:

List as necessary

.....hour (hr)

Item Unit

B18.02 Plant and equipment:

(a) Specify hour (h)

Item Unit

B18.03 Materials:

(a) Procurement of materials provisional (Prov) sum

(b) Contractor's handling costs, profit and all other charges in respect of subitem B18.03(a) percentage (%)

The unit of measurement for items B18.01 and B18.02 shall be the hour for the item of plant or personnel. Non-working hours for transport breakdown, lack of operator of any other reason shall not be measured. The time shall be taken from the time that the personnel and/or plant depart until return

Prior to the commencement of any work by the labourers described under item B18.01, the contractor must obtain written consent from the engineer regarding the classification of all labourers in terms of "unskilled", semi-skilled", "skilled" labourers, "labourer", "chargehand" and "supervisor".

The tendered rates for labour for item B18.01 shall include full compensation to cover overhead charges and profit, leave pay, bonuses, subsistence, allowances, employer's contributions, additional payment for overtime where applicable, insurances, housing, site supervision, use of small hand tools and appliances, non-mechanical plant and equipment and consumable stores, for all administrative, supervisory, operative and contingent costs, relating to the supply of personnel

The tendered rates for plant for item B18.02 shall be an all-inclusive hire charge for the use of the vehicle and driver or plant/equipment and operator and shall apply only to vehicles plant and equipment nominated in writing by the engineer, for all administrative, supervisory operative and contingent cost, and profit, relating to the running of the plant

The unit of measurement for subitem B18.03(a) shall be the amounts actually paid for the procurement of materials to be purchased and shall be made in accordance with the provision of the Conditions of Contract. Only the actual quantities of materials used, as verified by the Engineer, shall be paid for.

The percentage tendered for subitem B18.03(b) shall be the percentage of the amounts actually paid for the procurement of materials as ordered under subitem B18.03(a) and shall be in full and final compensation in respect of the Contractor's handling costs, profit and all other charges in connection with the procurement and supply of the materials to the point of usage.

The above-mentioned tendered rates shall be full compensation for the various items as specified and no further profit shall be paid

The rates shall be for the working hours of this contract."

C3.8.11 SECTION 3800: BREAKING UP EXISTING PAVEMENT LAYERS
B3801 SCOPE

Add the following:

"The pre-treatment of the runways shall be:

"Approximately 25 000m³ of existing asphalt shall be milled out from the Runway"

B3805 CONSTRUCTION

(a) General

Add the following:

"All bituminous layers will be removed through milling of the material to specified depths or levels.

Milling may also be required by the Engineer for repairing patches and shall be executed as described below.

Compensation for milling of keys, milling slots and asphalt paving of temporary ramps are deemed to be included in the rates for associated pay items. Permanent ramps will be paid under the relevant pay items

No separate payment will be done for provision of the milling machine on the site or moving of the milling machine on site or for re-establishment of the machine. All such costs shall be included in the rates tendered for milling of the respective materials.

No additional payment will be made for milling or otherwise excavating any material in restricted areas or restricted width or tapered areas at end of section transverse joints or on cold joints (cut back areas as specified)."

B3807 MEASUREMENT AND PAYMENT

Add the following:

"This pay item is deemed to include the cost of treating the exposed surface so that it is firm and stable without signs of ravelling, laminations or corrugations.

The tendered rate shall also include full compensation for an additional labourer, equipped with a shovel, pick, broom and hand held spot light to assist the Engineer and/or Engineer's staff to inspect the milled area. The rate shall also include for the management and maintenance of the stockpile to ensure that a height of 1,5m or as otherwise instructed by NEWCASTLE MUNICIPALITY is maintained at the stockpile area."

Amend the sub-title description to the following pay item:

"Item Unit

B38.02 Milling out existing bituminous material with an average milling depth:

Change the depth ranges and descriptions as follows:

"(a) Not exceeding 100 mm in depth cubic meter (m3)

"(b) Exceeding 100 mm cubic meter (m3)

Add the following to payment item B38.02:

"The rate for all subitems to be inclusive of all haulage costs and for milling and removal of the excavated bituminous material to spoil.

The rates shall also include all machine establishment and re-establishment costs whatsoever."

Amend the sub-title description to the following payitem:

"Item Unit

B38.03 Milling out cemented pavement layers:

"(a) Cemented material cubic meter (m3)

Add the following to payment item B38.03:

"The provisions of item 38.02 shall apply mutatis mutandis."

**C3.8.12 SECTION 4200: ASPHALT BASE AND SURFACING
B4202 MATERIALS**

(a) Bituminous binders

Reference is drawn to Clause B1232: SANS BITUMEN SPECIFICATIONS of the project specifications with regards to SANS Bitumen Specifications that shall apply to this contract

(i) Conventional binders

Add the following:

“The binder to be used shall be:

- a) 50/70 penetration grade
- b) 30% Stable grade bitumen emulsion for tack coat.
- c) Stable grade modified with 3% SBR
- d) High modulus asphalt (EME): 10/20 penetration grade bitumen and shall comply with the relevant requirements of Table B4202/13”.

Add the following:

“The binders shall comply with SANS 4001 Latest Amendment. The Contractor shall submit the following to the Engineer for each batch of bitumen used on site:

- A copy of the SANS quality certificate, indicating the batch number and grade.
- A sample of the (base) bitumen.
- The source of the bitumen.

The Engineer will require the Contractor to submit samples of the bitumen to an approved accredited laboratory at random intervals to check compliance with the SANS 4001 criteria. The cost of these additional tests will be reimbursed through a prime cost item.

Add the following new table:

TABLE B4202/13: PROPERTIES OF 10-20 PENETRATION BINDER FOR EME

Property	Unit	Test Method	Class
Before Ageing			10-20
Softening Point	°C	EN 1427	58-78
Penetration @25°C	0.1mm	EN 1425	10-20
Viscosity @ 60°C	Pa.s	EN 12596	>700

After Ageing (RTFOT)			
Increase in Softening Point	°C	EN 1427	≤ 10
Retained penetration (% of original)	%	EN 1425	>55
Mass Change	%		< 0.5

Add the following sub-sub-clause to sub clause (iv):

All bituminous binders shall be transported and handled as recommended in SABITA manual 25: 'Quality management in the handling and transport of bituminous binders.'

(iii) Homogeneous modified binders Add the following to the end of the Clause "The binder to be used shall be:

- a) A - E2 (elastomer modified)
- b) A - P1 (plastomer modified)

Add the following:

The supplier of the A-P1 binder shall quantify the fuel resistant properties of the binder according to both the CEN standard EN 12697-43:2005 (use in Europe) and NF P 98-251-1 (French standard). The engineer will approve the binder if sufficient evidence is provided that it is fit for purpose in terms of fuel resistance.

(b) Aggregates

Add the following:

"The fine aggregate for the asphalt wearing course and bitumen treated base shall consist of crushed stone."

(i) Resistance to crushing

Add the following

"The minimum 10% FACT for EME base mixes shall be 160kN"

(ii) Shape of the aggregate

Add the following.

"The maximum flakiness index of the aggregates used in EME base mixes shall be 25%. In addition, the percentage of fully crushed (>5mm) coarse aggregate shall be 100%.

For EME mixes the particle index test in accordance with Sabita Manual 33 shall be a minimum of 15% (ie >15%)”.

(v) Absorption

Add the following:

“In addition, the total binder absorption of the combined coarse and fine aggregate blend shall not exceed 1,5%.”

(vi) Design requirements

Add the following:

“The designs shall be undertaken in accordance with Clause 3.2.5 and conform to the requirements of the latest version of Interim Guidelines for the Design of Hot-Mix Asphalt in South Africa and also specifically with the design and performance criteria as amended and specified in B4203. The grading requirements of the specifications will serve only as a guideline and on the approval by the Engineer, where required to obtain performance, this will be relaxed.”

(viii) Grading

Add the following:

“The use of crushed stone base (run-of-the-crusher) material shall not be permitted. Any mix shall be manufactured using single size coarse aggregate fractions. The use of natural sand will not be permitted. The Engineer may request a reconsideration of a blend to achieve any grading within the given envelope to improve certain properties. The grading may fall partially outside the given envelope if approved by the Engineer.”

“The grading limits for the EME base mix, shall be based on those given in table B4202/6:

TABLE B4202/6: GRADING LIMITS FOR EME BASE MIXES

Sieve Size (mm)	NMPS = 14 mm
14	90-100
10	67-90
7.1	47-66
5.0	42-62
2.0	25-38

1.0	20-30
,600	15-25
0,300	11-20
0,150	7-16
0,075	5.5-7.9
Aggregate	93%
Nominal binder content	6.0%
Active filler	1%

(c) Fillers

Add the following to the first paragraph:

“For tender purposes the active filler shall be hydrated lime for conventional mixes at an active filler content of 1,0% by mass.

In no instance shall more than 2% by mass of active filler be used in the mixes, however where hydrated lime is used for in EME the quantity should be limited to 1% by mass of the total aggregate.”

(h) General

Add the following after the second paragraph:

"In case where drum mixing is used, the aggregate stockpiles shall be tested every second day or whenever new material is delivered. The test results must be presented to the Engineer.

B4203 COMPOSITION OF ASPHALT BASE AND SURFACING MIXTURES

In the fifth paragraph, delete “TRH 8” and replace with “Interim Guidelines for the Design of Hot-Mix Asphalt in South Africa and the design criteria specified in B4203.”

Also add the following to this clause:

The asphalt used for the asphalt surfacing at the runway and other sections (where instructed) shall consist of a Stone Mastic Asphalt as specified in Section 4200 and given in Table of the standard specifications.

Stone mastic asphalt	0/11 S	0/8 S	0/8	0/5
1. Mineral Aggregate	high quality chippings, high quality crushed sand, mineral filler		high quality chippings, high quality crushed sand, mineral filler	
Particle size fraction mm	0/11	0/8	0/8	0/5
Aggregate content < 0.09 % by weight	9 - 13	10 - 13	8 - 13	8 - 13
Aggregate content > 2.00 % by weight	73 - 80	73 - 80	70 - 80	60 - 70
Aggregate content > 5.00 % by weight	60 - 70	55 - 70	45 - 70	≤10
Aggregate content > 8.00 % by weight	≥ 40	≤10	≤ 10	-
Aggregate content > 11.20 % by weight	≤ 10	-	-	-
Crushed sand : natural sand ratio	1:0	1:0	≥1:1	≥ 1:1
2. Binders				
Binder type	50/70 (PmB 45) ²¹	50/70 (PmB 45) ²¹	70/100	70/100 (160/220) ²¹
Binder content % by weight	≥ 6.5	≥ 7.0	≥ 7.0	≥ 7.2
3. Stabilizing additives				
Content in mixture % by weight	0.3 - 1.5			
4. Mixture				
Marshall specimen compaction				
Temperature ²¹ °C	135 +/- 5			
Void content vol. %	3.0 - 4.0	3.0 - 4.0	2.0 - 4.0	2.0 - 4.0
5. Course				
Paving thickness cm	3.5 - 4.0	3.0 - 4.0	2.0 - 4.0	2.0 - 3.0
or Paving weight kg/m ²	85 - 100	70 - 100	45 - 100	45 - 75
For exceptions, e.g. with uneven foundations				
Paving thickness cm	2.5 - 5.0	2.0 - 4.0	-	-
or Paving weight kg/m ²	60 - 125	45 - 100	-	-
Degree of compaction %	≥ 97			
Void content vol. %	≤ 6.0			

B4204 PLANT AND EQUIPMENT

(a) General

Add the following:

""In all cases of night work and/or other limited occupation work sections, the contractor shall ensure that a minimum of 50 tons of asphalt is available in hot bins at the plant before milling commences. The contractor is to ensure that the production shall be such that should there be a problem at the plant that sufficient asphalt is stored in hot bins to backfill the full milled areas. In cases of night time work or other limited access occupation areas requiring opening to traffic at the end of the occupation period, binned asphalt or asphalt already on site shall be equivalent / or greater than the quantity of material required to backfill any milled work.

The Contractor shall have at least two pavers on site working simultaneously. The details of these pavers should be listed on Forms C3 and C4 respectively.

The onus will remain with the Contractor to supply sufficient subsequent plant to match the production of the pavers."

(b) Mixing plant

(i) Conventional Binders

For item B4204 (b) (i) replace the amended second paragraph with:

"The mixing plant shall be automatically controlled such as to ensure that a uniform mix will be produced at all times under normal operating conditions to the satisfaction of the Engineer. Special care shall be taken to ensure a continuous free flow of active filler and modifier. The mixing process will immediately be stopped if manual intervention is required to enhance the flow of aggregate, filler or modifier. The mixing process will not be allowed to continue until the Engineer has been satisfied that the mixing plant can be controlled adequately to ensure a continuous uniform mix without manual intervention. If the process cannot be rectified in time to complete the days work, the mixing and paving will be allowed to continue but the asphalt layer produced by the mixing plant will be rejected and will have to be replaced with a new approved mix. The Employer reserves the right to instruct the Contractor to use an alternative mixing plant if the problem persists. No additional payment will be made in such an event, even if the Contractor elects to change his asphalt supplier."

Add the following at the end of the third paragraph:

“Batch plants shall be provided with efficient means of sampling the aggregate in each hot bin and filler storage bin.

All mixers shall be provided with a sampling point for hot bitumen between the storage tanks and the mixer.

All thermometric equipment shall be clearly visible to the plant operator.

The manufacturer’s rated capacity of the mixing plant shall be adequate to meet production requirements for the work. The rate of production shall not exceed 80% of the manufacturer’s rated capacity of the plant.

All plant used by the Contractor for the preparation of asphalt base and surfacing, stone mastic asphalt and levelling and bedding layer mixtures shall be open to inspection by the Engineer at all times. Calibration at all feeders shall be done in the presence of a representative of the Engineer.”

Add the following at the end of the fifth paragraph:

“A separate cold feed bin shall be allocated for each aggregate size.”

Add the following at the end of the sixth paragraph:

“If material recovered from the dust collecting equipment is to be fed into the mixer it shall first be weighed by means of a suitable weighing device. No material finer than 0,005 mm may be fed back into the mixer.”

Add to the seventh paragraph:

“...or the latest revision or replacement act.”

(c) Spreading equipment

(i) Paver

Replace the last paragraph with the following:

“The paving of the asphalt surfacing shall be controlled by the use of wires or similar approved methods to achieve the specified levels and thickness.

Averaging beams (levelling beams) are to be used for the asphalt surfacing. They shall be at least 9 m long and shall be assembled from rigid sections having multiple spring-load feet.”

(d) Rollers

Replace the next sentence in the first paragraph with the following:

“Approved tandem-axled steel-wheel rollers with a minimum roller width of 1,5 m and a minimum length of 2,0 m must be used for initial rolling. The roller drum must be smooth without any indentations or marks that may lead to pick-up of the asphalt carpet. A 25-ton pneumatic roller must be used for the final rolling and finishing of asphalt surfacing. The use of the pneumatic roller shall be assessed in the trial section.”

B4205 GENERAL LIMITATIONS AND REQUIREMENTS AND THE STOCKPILING OF MIXED MATERIAL

(a) Weather conditions

Add the following paragraph:

No paving or patching shall be carried out under unstable weather conditions. Should rain or cold weather threaten, all exposed areas shall immediately be reinstated with asphalt and milling operations shall cease.”

(c) Surfacing requirements

(ii) Tack coat

Add the following paragraph:

“Hand spraying shall only be permitted on areas approved by the engineer. The binder distributor shall be capable to apply the binder evenly over the full area. The equipment shall comply with clause 4103. Tack coat shall be applied to all transverse and longitudinal joints in the asphalt by hand utilizing a paint brush.”

B4206 PRODUCING AND TRANSPORTING THE MIXTURE

(b) Transporting the mixture

Add the following:

"Segregated mixes will under no circumstances be accepted by the Engineer. Effective steps must be taken by the Contractor to prevent segregation. Trucks with segregated asphalt mixes will be rejected by the Engineer."

"Special precautions shall be taken by the Contractor to ensure that the temperature of the total mass of asphalt does not decrease by more than 15°C from point of dispatch to the point where it is to be

B4207 SPREADING THE MIXTURE

Add the following to subclause (a):

"The following paving restrictions will strictly apply:

- No paver stops will be allowed for reversing supply trucks.
- Continuous paving operation is a requirement. Paver speed to be regulated to prevent supply related stops. Paving operations may only start if sufficient asphalt supply trucks are available to ensure a continuous paving operation.
- Levelling skid-beams (9 m length at least with free wire between ends) or wire guide system to be used on both sides – no joint matchers except if agreed or instructed by the Engineer.
- Automatic auger feed control, which can keep the asphalt mount in-front of the screed constant, are required.
- No pneumatic rolling as breakdown rolling on the final surfacing layer.
- Handwork shall not be allowed.
- No fat spots or loose stones.
- No water ponding.

In the case of non-appliance herewith the Engineer's personnel will stop the paving operations and sections done in non-compliance can be rejected after assessment by the Engineer."

B4208 JOINTS

Add the following to this clause:

"a) Asphalt Surfacing

All joints not paved with tandem pavers will be considered to be cold joints with reference to joint treatment preparation. All asphalt joints shall be cut back by an approved roller wheel or milling machine (minimum 70 mm in 2 x roller wheel cuts on surfacing layer) in a straight line to the satisfaction of the Engineer.

The lateral distance between joints of two (2) successive asphalt layers shall not be less than 200 mm.

Where the difference in level between the new work and the existing road surface exceeds 25 mm, joints shall be treated as follows:

Transverse steps at the end of a day's work on operational runways and runways shall be tapered off at a slope of 1 vertical to 20 horizontal (1:20) to tie in with the existing surface. The tapered section shall be removed before surfacing is recommenced and a joint formed in accordance with clause 4208 of the specification. Longitudinal joints exposed to traffic shall be provided with a taper of compacted asphalt material over the full length of the exposed joint. The width of the taper shall be at least 5 times the difference in level between the old and new work.

All costs involved in the provision and removal of these temporary ramps shall be deemed to have been included in the rates tendered for the relevant asphalt pay item.

b) Longitudinal Joints

Longitudinal joints shall be cut back as specified in a) above.

No saw-cutting will be allowed on newly placed asphalt. All wearing course transverse joints to be cut and treated similar to the specifications for longitudinal joints.

Whenever the paver stops for more than 5 minutes on thinner wearing course layers and/or the uncompacted material already laid cools down to below compaction temperature (110°C for wearing course), a joint shall be constructed as specified and all cooled uncompacted materials removed from the pavement."

B4210 COMPACTION

Add the following to the 4th paragraph:

“An appropriate rolling temperature range will be determined by the Contractor and will be submitted to the Engineer for verification during the trial sections. This range will be applied as specification during the contract.”

Replace the 6th paragraph with the following:

“The sequence of rollers used in compaction is at the discretion of the Contractor (except as specified for pneumatic rolling in B4207) provided the completed layers shall have minimum and maximum density as specified in table B4210/1 below as described in TMH1, method C4 (Rice's density).

Table B4210/1: Minimum and Maximum Compaction Density Specifications

Layer	Min Density	Max Density
Wearing courses and thin base repairs (40mm to 60mm thick)	93% MTRD	97% MTRD
BTB mixes (60mm to 120 mm thick)	93% MTRD	97% MTRD
EME base mixes (60mm to 120mm thick)	94% MTRD	97% MTRD
Heavy duty A-P1 modified surfacing (70mm to 90mm)	92% MTRD	96% MTRD
Shoulder mixes (4060mm thick)	93% MTRD	99% MTRD

In addition hereto the compaction immediately adjacent to joints and across the joints shall be done to ensure densities of not less than 1% of those specified (above) in the rest of the layers (including all hot and cold joints). Joint densities measured across the joint shall not have densities of less than 2% of the minimum specified layer density. A combination of asphalt cores and Marvel permeability testing will be used to access and approve joint densities before covering thereof with consecutive layers.

B4213 CONSTRUCTION TOLERANCES AND FINISH REQUIREMENTS

- (a) Construction tolerances
- (iv) Cross-section

Replace the entire clause as follows:

“When tested with a 3 m straight edge laid in any direction on the runway (excluding areas on the crown of the runway), the surface shall not

deviate from the bottom of the straight edge by more than 3 mm for the runway.

(d) Binder content

Delete the words "clause 8206 or clause 8305" in the third line and Substitute with "clause 8305".

(e) Air-void tolerance

Replace the content with the following:

"The actual air voids may not deviate by more than 1 percentage point from the air voids in the approved working asphalt mixes, based on a Marshall compaction of the approved working mix."

B4214 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following to this clause:

(b) Coring of asphalt layers

Delete the first sentence and replace with the following:

"The Contractor shall provide suitable coring machines capable of cutting 100 mm and 150 mm cores from the completed asphalt layers."

Add the following at the end of the first paragraph:

"No laying of asphalt surfacing shall be permitted unless a suitable core cutting machine is available on site at all times when asphalt paving is taking place. Cores shall be taken as specified in Section 8100 and Section 8300 or as directed by the Engineer. Cores may only be drilled when the layer temperature is less than 20°C. Core holes must immediately after coring be filled with hot asphalt and compacted. Cores shall be taken within 48 hours of paving. The density test results on the cores will be submitted to the Engineer 24 hours after coring."

Add the following sub-clauses:

(d) Quality Control

The Contractor will be required to submit his detailed Quality Assurance Plan (system) to the Engineer for approval. Once approved, the Contractor shall not deviate from the system.

(e) Riding quality

"For the overlaid areas, the surface regularity, in addition to the specified requirements, shall be determined with a high speed profilometer (HSP), capable of producing a class 1 vertical measurement and class 3 longitudinal sampling distance as defined in ASTM standard E950-94, with a valid validation certificate. Record the longitudinal profile in both wheel tracks, 1,7 m apart for each paved lane. Then, from the data, determine the average IRI for the left and right wheel track for each 100 m section for each lane paved in one width (the values indicated in Table B4213/2 may be relaxed by the Engineer on the portion of the width that does not get an infill. This will be determined and communicated once the existing IRI's have been determined). The first and last 50m of the runway will not be assessed for riding quality.

The IRI shall be judges in terms of the payment adjustment factors in Table **B4213/2.TABLE B4213/2: RIDING QUALITY FOR UTFC OVERLAY PAYMENT ADJUSTMENT FACTOR**

Riding quality	Payment adjustment factor
100 m IRI values	overlay on existing surface
(mm / m)	
< 1,20	1,0
1,21 – 1,30	1,0
1,31 – 1,40	1,0
1,41 – 1,50	0,98
1,51 – 1,60	0,97
1,61 – 1,70	0,96
1,71 – 1,80	0,94
1,81 – 1,90	0,92
1,91 – 2,0	0,90
> 2,0	Not acceptable

Sections that are found to be unacceptable in terms of regularity shall either be replaced, or remedial measures implemented that will provide the required riding quality. A method statement describing these measures shall be approved by the employer before implementation. Skimming of the areas with a milling machine shall not be allowed. Corrective work shall be done at the contractor's expense. After

completion of the corrective work the specific 100 m section shall be re-evaluated as described above.

Any adjustment to the payment of asphalt surfacing shall be done by multiplying the payment adjustment factor derived as above with the full payment of the relevant asphalt pay item plus tack coat and other payable incidentals. The payment adjustment factor shall apply to the full layer width paved in one operation for that specific 100 m section.

Riding quality tests using the HSP shall be paid for under pay item B12.07.

Any acceptance of asphalt quality control will not be deemed to include for this clause until such testing has been complete and finalised with the Engineer. Acceptance at partial payment, based on obtained riding quality between 1,4 and 2,0, is at the discretion of the Engineer (based on adherence to B4207 and all other applicable COLTO workmanship specifications). In areas where the Engineer can certify adherence to the criteria, in the absence of available IRI test results, he may do so with permission of both the Employer and Contractor.

The rolling straight edge test in the Standard Specifications will not be applicable except on the transverse construction / stop joints of all paved sections. The maximum irregularity measure with the wheels of the standard apparatus removed (only outer wheels at 3m spacing in place) shall be + or - 3mm. Joints that do not satisfy these criteria shall be milled and reconstructed over a minimum "10m in length " section."

The Contractor shall arrange for the IRI testing of all sections by a Laboratory approved by the Engineer, before the end of the Contract or when instructed within 21 days of such instruction. Costs for such testing of all relevant sections shall be deemed to be included in the rates of these wearing course layers; additional IRI testing as instructed by the Engineer shall be paid under B12.07 PC Sum.

The contractor is to supply surveyed levels of each layer (including the milled interface and the original surface) to the engineer at a frequency of at least five positions along the width of the paved layer and at 20m interval. These co-ordinated positions shall then be used for all subsequent surveyed layers. "

- (f) Special tests
- (i) Recovery of binder for further testing

Extraction of bitumen and its recovery from samples taken from the asphalt layers shall be carried out in accordance with ASTM D1856/79 (Abson).

(ii) n-Heptane-xylene Equivalent (Spot Test) (AASHTO – T102)

If the Engineer considers that bitumen or asphalt has been overheated he may order that the bitumen or the bitumen recovered from the asphalt be subjected to the spot test.

Recovery of binder for use in the spot test shall be carried out as described in (d) (i) above.

Any sample showing an n-Heptane-xylene equivalent in excess of 36 or if the bitumen contains a proportion of bitumen prepared from cracked stock, in excess of the manufacturers test result on the new stock, shall be considered to have been overheated and shall be rejected.

(iii) The following additional test shall be carried out on asphalt samples taken from the paver hopper:

- Penetration of recovered binder @ 25°C (Method ASTM D5)

Should the penetration of the recovered binder be less than 24 at 25°C, the asphalt layer shall be deemed to be unsatisfactory and shall be condemned by the Engineer. The Engineer on site shall decide the frequency of testing.

(g) As-Built

The Contractor shall keep accurate records and submit the following information to the Engineer on a daily basis:

- I. Where every truckload of asphalt is laid (load, position, lane, time and date).
- II. The truck number from which control samples have been taken. All samples taken from trucks shall be numbered.
- III. The temperature of the asphalt in the truck both at the mixing plant and at the paving equipment.
- IV. Process control results

These shall be summarised on a spreadsheet/database and mapped for as-built purposes and supplied to the engineer on a daily basis."

B4215 MEASUREMENT AND PAYMENT

Amend the following payment item:

Item Unit

B42.04 Tack coat

(a) 30% stable-grade emulsion Litre (ℓ)

(a) Stable grade modified with 3% SBR Litre (ℓ)

Amend the 1st sentence to:

"The unit of measure shall be the litre if 30% stable-grade emulsion or Stable grade emulsion with 3% SBR applied as specified."

Add the following payment item:

Item Unit

B42.08 100mm cores in asphalt paving number (no)

Amend the 1st sentence by adding the following after the word "drilled...": "irrespective of depth of core."

Add new payment item (iii) to B42.11(a):

Item Unit

B42.11 Asphalt layer constructed for rehabilitation purposes in accordance with the provisions of sub-sub-clause B4213(f)(ii) and B4213(f)(iii)

(a) Base constructed with new asphalt 75mm - 250mm compacted thickness

(iii) EME Class 2 14mm maximum particle size using 10-20 pen bitumen ton (t)"

Insert the following paragraphs after the 1st paragraph:

“The unit of measurement for subitem (a) shall be the ton of asphalt base placed in compacted layer thickness not exceeding 100mm, and measured according to certified weighbridge tickets issued in respect of the mixture used.

Add the following new items

“Item Unit

B42.21 Provisional Amount for bitumen price rise Prov-sum

The expenditure under this item shall be made in accordance with the general conditions of contract.

Item Unit

B42.22 Special additional initial design testing required by the Engineer
Prov-sum

The expenditure under this item shall be made in accordance with the general conditions of contract and also Clause 6.5.1.2.3 of the contract data.”

Item Unit

B42.23 Installation of 25 mm dia HDPE cable duct and cable complete in new or existing asphalt of runway

(a) Specify depth metre (m)

The unit of measurement shall be metre of 25 mm diameter HDPE, PE63, Class PN10 ducting installed as indicated in the drawings.

The tendered rate shall include full compensation for saw cutting the slots, removal and spoil of the material, HDPE ducting (including tie downs around the sleeve) resin (ABE, abecote sf 356 type, 3 part silica sand with one part resin) backfill, SABS fine asphalt backfill, copper markers, galvanised draw wires, labour and all plant necessary for the completion of the works as indicated in the drawings”

Item Unit

B42.24 Asphalt reinforcing (Specify type) square metre (m2)

The unit of measurement shall be the square metre of asphalt reinforcing installed. This item will include the full compensation of the supply of material, preparation of the layer, installation and finishing of the system

Item Unit

B42.27 Spoiling material attained from stockpile cubic metres (m3)

The unit of measurement shall be the amount of cubic metres of material removed by the Contractor on site and spoiled at a spoil site.

The rate is inclusive of all costs in locating an preparing a spoil site as well as all haul."

C3.8.13 SECTION 4800: TREATMENT OF AN EXISTING SURFACE EXHIBITING CERTAIN DEFECTS

B4802 MATERIALS

Add the following:

“The classification of modified binders for crack sealing shall be as shown in Table B4801.

Table B4801

Classification of Modified Binders for crack Sealing	
Modified Binder Class (C)	Application
C – E1	Crack Sealant – Hot applied
C – R1	Crack Sealant – Hot applied

The letter codes used in the classification are defined as follows:

C – crack seal applications (hot applied)

E – a polymer of the elastomer type (e.g. SBR, SBS, etc) R – Bitumen Rubber type

The binders to be used on this contract for the sealing of cracks shall be C – E1. The properties of the crack sealant shall conform to the requirements listed in Table B4802.

Properties for modified binder crack sealants			
Property	Unit	Test Method	C – E1
Softening point (R&B)	°C	MB - 17	80 (min)
Elastic recovery @ 15°C	%	MB - 04	80 (min)
Flow @ 60°C	mm	MB - 12	Nil
Resilience	%	MB - 10	N/A
Torsion recovery @ 15°C	%	MB - 05	Report
Solids content (m/m)	%	MB - 22	N/A
Viscosity @ 165°C	Pa.s	MB - 18	0.55 (max)
Dynamic viscosity (Haake @ 190°C	Dpa.s	MB - 13	N/A
Viscosity @ 25°C	Pa.s	MB - 18	N/A

B4803 PLANT AND EQUIPMENT

(b) Equipment for crack sealing

Delete this subclause, and replace with the following:

"The contractor shall inter alia provide the following equipment for crack sealing:

(i) Blowing out cracks

The contractor shall provide a mobile compressor capable of discharging at least 3-m³/min compressed air at 650kPa pressure. The compressed air shall be free of deleterious matter that may adversely affect the bond between the sealant and the cracks. The compressor shall be free of oil, and diesel leaks.

A lance shall be used to direct the force of the air into the cracks and must be sufficiently maneuverable to enable the path of the crack to be followed accurately.

If hot air is specified, the compressed air must be heated by a hot air lance capable of achieving a temperature of 300°C in the combustion chamber.

(ii) Sealant applicator

"The sealant shall be applied through an applicator manufactured specifically for this purpose. Essentially the equipment for the hot sealant shall consist of a mobile vessel capable of heating the sealant to the required application temperature by indirect heat and controlled by a thermostat to prevent overheating. A calibrated thermometer shall be fitted in an accessible position to accurately measure the sealant temperature in the tank. Special pumps, which can deliver the sealant to the crack in a controlled manner, shall be used.

The sealant shall only be applied with pressure type application equipment to ensure that the cracks are filled rather than covered.

The contractor shall ensure that all equipment is kept clean so as to prevent blockages and resultant poor workmanship."

B4804 CONSTRUCTION

(e) Sealing cracks

Add the following:

“Prior to sealing, areas for sealing shall be delineated by the engineer.”

(ii) Preparation

Add the following:

“The cracks shall be blown out with heated (“hot air lance”) compressed air. All dirt, grit and other base or foreign matter shall be blown out and be removed from the cracks and pavement surface.”

(iii) Cracks smaller than 3 mm

Add the following:

“No cracks smaller than 3 mm width shall be sealed unless so ordered by the engineer.”

(iv) Cracks of 3 mm and wider

Add the following:

“Cracks shall first be cleaned before the crack is sealed. The sealant shall be forced into the cracks by means of the specified sealant applicator. The contractor shall ensure that the sealant mixture actually penetrates the crack and does not merely cover the crack in the form of a bandage. All excess sealant on the road surface wider than 30mm on either side of the crack, and thicker than 1mm, shall be removed, and shall not be paid for.”

B4807 MEASUREMENT AND PAYMENT

Add the following new payment items:

B48.14 Sealing cracks:

(a) Cleaning crack with hot compressed air and sealing using
Class C-R1 modified binder crack sealant metre (m)

(b) Cleaning crack with cold compressed air and sealing using
Class C-E1 modified binder crack sealant... metre (m)

The unit of measurement for sealing of cracks shall be the metre of crack sealed as specified.

The tendered rates shall include full compensation for providing, mixing, heating (where required) and applying all the materials as specified, and for all equipment, labour, supervision and incidentals for completing the work. No additional payment will be made for multiple applications of material, and payment will not distinguish between the various types, widths or lengths of cracks."

C3.8.14 SECTION 5700: ROAD MARKINGS

B5707 APPLYING THE PAINT

Add the following:

“Where the runway or runway is to be re-opened to traffic after shifts, the Contractor will be required to apply all necessary paint markings at completion of each such shift within a designated area. The paint shall be non-reflectorised and applied strictly in accordance with the manufacturer’s instructions. The paint shall be normal road marking paint complying with SABS 731. Solvent-based paints will be used for temporary paint markings and water-based paint for all permanent paint markings. At the start of the project, the Contractor will supply samples of the paint he intends to use and apply trial sections to the satisfaction of the Engineer which will also include environmental risk mitigation measures to be implemented and maintained as well as waste management.

The existing paint markings will be removed and replaced in accordance with ICAO standards.

Add the following Section B9100: Application Of Polymerized Bitumen Rejuvenator With Mastic Filler (PBRF) to Series 9000: General of the Standard Specifications:

"C3.8.16 SECTION 9100: APPLICATION OF POLYMERIZED BITUMEN REJUVENATOR WITH MASTIC FILLER (PBRF)

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9101 SCOPE

This Specification covers the materials and construction requirements for the construction of a seal using a polymerised bitumen rejuvenator with a mastic filler (PBRF).

9102 INTERPRETATIONS

(a) Application

This Specification contains clauses that are generally applicable to sealing of cracks. Interpretations and variations of this specification are set out in the Project Specification which precedes this Specification in a Contract Document.

9103 MATERIALS

(a) Base Bitumen

The bituminous binder used in the production of the PBRF shall comply with the requirements of SANS 307.

(b) Aggregates

The aggregates shall be an approved mixture of selected crusher sands.

9104 PLANT AND EQUIPMENT

(a) General

All plant and equipment used on the works shall be of adequate rated capacity and in good working condition.

All plant and equipment shall be in good working condition and shall be operated by properly qualified operators. It shall be free of any binder, fuel or oil leaks and no

refuelling or servicing shall take place while such plant or equipment is on the airside pavement surface.

(b) Mixer for PBRF

A batch mixer or a continuous type mixer shall be provided. The paddles of the mixer shall be so designed as to ensure thorough blending of the constituents of the PBRF.

(c) Application of PBRF

Hand work shall be used in applying PBRF, and then only in accordance with approved methods under the strict supervision of experienced personnel and with equipment suitable for performing the work in accordance with specified requirements.

(d) Miscellaneous Equipment

Suitable fire fighting equipment for dealing with bitumen fires shall be available on site, together with suitable first aid equipment for dealing with bitumen burns. (Refer to Sabita Manual 8: Bitumen Safety Handbook).

9105 CONSTRUCTION

(a) Traffic accommodation

Sealing shall be scheduled in conjunction with the controlling authority in order not to interfere with air traffic operations.

(b) Weather limitations.

A minimum pavement surface temperature of 8°C and rising shall apply to PBRF. No work shall be done during foggy or rainy weather. When the wind is blowing, the above temperature shall be increased by 3 – 6°C, as directed by the Engineer.

When the emulsion breaking process accelerates to such an extent that it renders the product unworkable in attaining the required end result, for

instance when the surface temperature is in excess of 60°C, no sealing shall be done.

When strong winds are blowing which are likely to interfere with the proper execution of the work, no sealing shall be done.

(c) Moisture content

No sealing shall be carried out immediately after a rainy spell on an existing partly cracked and/or highly permeable surfacing, which could result in the trapping of moisture in the pavement structure. A minimum delay of 24 hrs, or such extended period as ordered by the Engineer shall apply.

(d) Preparation of areas to be sealed

Areas to be sealed shall be cleaned of all dust, dirt, dung, oil or any other foreign matter that may be deleterious to the seal.

(e) Existing surfaces to be resealed

Any failures in the existing road pavement shall first be repaired before applying the PBRF.

(f) Storage of polymerised bitumen rejuvenator with a mastic filler

In instances where the modified binder is stored for extended periods (> 36 hours), such storage will be at ambient temperature in a dry storage facility, not located in direct sunlight.

(g) Stockpiling of aggregate

Sites for the stockpiling of aggregates shall be prepared in such a manner that no grass, mud, dirt or other deleterious material will be included when the aggregates are loaded for use.

Access roads to stockpile sites shall be prepared and maintained in such a way that no dirt is conveyed by vehicle wheels onto the areas to be resealed whilst aggregate is being transported to or from the stockpiles. Stockpiles shall be so sited that they will not be exposed to excessive contamination with dust arising from traffic on the road or access roads.

(h) Protection of kerbs, channels, etc.

Kerbs, channels, manholes and any other structures which may be soiled by PBRF during application shall be suitably protected.

The Contractor shall replace, at his own cost, any items that have been soiled and cannot be cleaned entirely. The painting of soiled surfaces will not be accepted as a suitable remedy.

(i) Rate of application

PBRF shall be applied on the designated area at the rate of application determined by the supplier and the Engineer. The nominal rate for tendering purposes shall be 1 kg/m².

(j) Blinding

A light blinding layer of washed natural sand shall be applied by the Contractor to prevent PBRF from being picked up by traffic. If required by the Engineer, the blinding shall be spread evenly by means of hand brooms.

(k) Opening to traffic

The Contractor shall be responsible for determining when any sealing layer is to be opened to traffic.

The airside pavement shall not be opened to traffic until the binder has set sufficiently to prevent being picked up by the wheels of passing traffic.

(l) Defects

Where, in the opinion of the Engineer, any unacceptable loss of PBFR or bleeding of the road surface, has occurred during the contract or maintenance period and this can be attributed to the Contractor not having observed any of the requirements of the specifications, not using the correct application, or to any other omission or fault on the part of the Contractor, any corrective work required shall be at the Contractor's expense.

(m) Maintenance

The Contractor shall maintain the bituminous surface until the work is finally accepted by the Employer. Any damage done to the surface, or any defects which may develop before the issue of the completion certificate, fair wear and tear excepted, shall be corrected by the Contractor at his own cost and to the requirements of the Engineer.

9106 TOLERANCES AND FINISH REQUIREMENTS

The completed seal shall be of uniform texture, without gaps or patches, and shall be free from any bitumen spillages.

Any areas which show signs of bleeding after the section has been opened to traffic shall be corrected. Corrective work shall be carried out in such a manner as to blend in colour, texture and finish with the adjacent work. The maximum permissible variation from the rate of application specified for the PBRF shall be plus or minus 5% ($\pm 5\%$).

9107 MEASUREMENT AND PAYMENT

General Directions

No separate payments will be made for transport or for traffic accommodation, measures required to execute the work.

Item Unit

91.01 Preparation of surface and sealing of cracks

(a) Cleaning of surface and cracks with compressed airsquare metre (m²)

The unit of measurement for cleaning the surface and cracks with compressed air shall be the square metre of surface on which all cracks have been blown clean.

The tendered rate shall include full compensation for providing all equipment, labour, supervision and incidentals necessary for blowing clean the cracks over the full width of the runway.

Item Unit

91.02 Applying a polymerised bitumen rejuvenator with mastic filler

(a) Applying a polymerised bitumen rejuvenator with mastic filler at a rate of 1 kg/m² by hand square metre (m²)

The tendered rate shall include full compensation for procuring and furnishing all the materials, for mixing and applying PBRF, demarcating all areas to be treated, as well as for all plant, labour and incidentals necessary to complete the work as specified.

Item Unit

91.03 Variation in application

(a) Polymerised bitumen rejuvenator with mastic filler- binder litre
Variations within the tolerances for the rate of application specified in 9105(i) will not be taken into account for the purpose of measurement. Where the specified rate of application varies from the nominal rate in 9106 adjustment of compensation will be made as follows:

(a) as a payment to the Contractor in respect of each increase in rate of application above that specified, only where such increases have been ordered by the Engineer in writing

(b) as a refund by the Contractor in respect of each decrease in quantity below that specified, only where such decrease has been ordered by the Engineer.

In the case of an increase or decrease in the rate of application owing to facility workmanship on the part of the Contractor, in the opinion of the Engineer, the Engineer may condemn the work, require the Contractor to rectify the work or agree to a refund by the Contractor to cover the cost to the Employer of the earlier maintenance which will be required because the surfacing does not comply with the specification.

Item Unit

91.04 Aggregate for blinding

(a) Blinding with washed natural aggregatecubic meter (m3)

The unit of measurement shall be the cubic metre of washed natural sand measured in the hauling vehicles.

The tendered rate shall include full compensation for providing the sand and applying the blinding coat complete as specified, and, if so required, for temporarily stockpiling the material at an approved locality."



PART C4

SITE INFORMATION

C4: SITE INFORMATION

C4.1 INTRODUCTION

C4.1.1 Disclaimer

Amongst others, this document sets out the results and conclusions derived from some investigations and tests done on natural materials encountered along and in the general vicinity of the site.

The results of these investigations are given in good faith and there is no guarantee that these results are entirely representative of all the materials and conditions that may be encountered, the intention being to give an indication of the materials and conditions most likely to be encountered.

The results of various tests carried out on materials taken from possible sources are given in good faith and there is no guarantee that the results are entirely representative of all the materials available nor that the estimated quantities of materials are correct, the intention being to give an indication of the materials most likely to be obtained from each source.

No responsibility for any consequence arising from variations between the actual material properties and those indicated in this document will be accepted.

The specifications and contract drawings shall always overrule this section of the contract document.

C4.2 LOCATION

Newcastle Municipality

Please see herewith the attached geographical location map.

C4.3 ACCESS TO SITE

Please find herewith the attached geographical location map.

C4.4 EXISTING SERVICES, SERVITUDES AND WAYLEAVES

Should the Contractor damage an existing service he shall immediately contact the Engineer who will investigate the matter and determine liability for the damage.

All cables and pipes shall be considered "live" unless confirmed otherwise by the relevant authority.



PART C5

DRAWINGS

NEWCASTLE MUNICIPALITY

RESEALING OF THE AIRPORT RUNWAY

The drawings issued to tenders as part of the tender documents must be regarded as provisional and preliminary for the tenderer's benefit to generally assess the scope of work.

The work shall be carried out in accordance with the latest available revision of the drawings approved for construction.

At commencement of the contract, the Engineer shall deliver to the Contractor copies of the AFC drawings and any instructions required for the commencement of the works. From time to time thereafter during the progress of the works, the Engineer may issue further drawings for construction purposes as may be necessary for adequate construction, completion and defects correction of the works.

All drawings and specifications and copies thereof remain the property of the Employer, and the Contractor shall return all drawings and copies thereof to the Employer at the completion of the contract.

The drawings listed in the table overleaf have been bound into the document.

Tenderers are to ensure that they receive a complete set of the tender drawings and must immediately inform the Engineer of any drawings that are missing so that further copies can be issued.

NUMBER	REV	DESCRIPTION
01	00	RUNWAY LAYOUT PLAN + LONGSECTION @ 0.00KM TO 0.800KM
02	00	RUNWAY LAYOUT PLAN + LONGSECTION @ 0.800KM TO 1.511KM
03	00	GEOMETRIC LAYOUT @ 0.00KM TO 0.800KM
04	00	GEOMETRIC LAYOUT @ 0.800KM TO 1.511KM