ANNEXURE D: COMBINED BOQ FOR RFQ

TENDER NO: XXX

PROJECT NAME: BRAAMFONTEIN ROLLING STOCK PROVISION OF SAFE ROOF ACCESS ON PITS 8 AND 9 FOR THE MAINTENANCE OF ROOF-MOUNTED EQUIPMENT

PREAMBLE TO THE BILL OF QUANTITIES

1. The General Conditions of Contract, the Special Conditions of Contract, the Specifications (including the Project Specifications) and the Drawings shall be read in conjunction with the Schedule of Quantities.

2. The Schedule comprises items covering the Contractor's profit and costs of general liabilities and of the construction of temporary and permanent Works.

   Although the Tenderer is at liberty to insert a rate of its own choosing for each item in the Schedule, it should note the fact that the Contractor is entitled, under various circumstances, to payment for additional work carried out and that the Engineer is obliged to base his assessment of the rates to be paid for such additional work on the rates inserted in the Schedule by the Contractor.

   Clauses of each Standardised Specification, and the measurement and payment clause of each Particular Specification, read together with the relevant clauses of the Project Specifications, all set out which ancillary or associated activities are included in the rates for the specified operations.

3. Descriptions in the Schedule of Quantities are abbreviated and may differ from those in the Standardised and Project Specifications. No considerations will be given to any claim by the Contractor submitted on such a basis. The Schedule has been drawn up generally in accordance with the latest issue of Civil- and Electrical Engineering Quantities 1. Should any requirement of the measurement and payment clause of the appropriate Standardized or Project Specification(s) be contrary to the terms of the Schedule or, when relevant, to the Civil Engineering Quantities, the requirement of the appropriate Standardized, Project, or Particular Specification as the case may be, shall prevail.

4. Unless stated to the contrary, items are measured nett in accordance with the Drawings without any allowance having been made for waste.

5. The amounts and rates to be inserted in the Schedule of Quantities shall be the full inclusive amounts to the Employer for the work described under the several items. Such amounts shall cover all the costs and expenses that may be required in and for the construction of the work described, and shall cover the costs of all general risks, profits, taxes (but excluding Value-added Tax), liabilities and obligations set forth or implied in the documents on which the Tender is based.

6. An amount or rate shall be entered against each item in the Schedule of Quantities, whether or not quantities are stated. An item against which no amount or rate is entered will be considered to be covered by the other amounts or rates in the Schedule.

   The Tenderer shall also fill in a rate against the items where the words "rate only" appears in the amount column. Although no work is foreseen under these items and no quantities are consequently given in the quantity column, the tendered rates shall apply should work under these items actually be required.

   Should the Tenderer group a number of items together and tender one lump sum for such group of items, the single tendered lump sum shall apply to that group of items and not to each individual item, or should he indicate against any item that full compensation for such item has been included in another item, the rate for the item included in another item shall be deemed to be nil.

---

1 The standard system of measurement of civil engineering quantities published by the South African Institution of Civil Engineers.

The tendered rates, prices and lump sums shall, subject only to the provisions of the Conditions of Contract, remain valid irrespective of any change in the quantities during the execution of the Contract.

7. The quantities of work as measured and accepted and certified for payment in accordance with the Conditions of Contract, and not the quantities stated in the Schedule of Quantities, will be used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by differences between the quantities in the Schedule of Quantities and the quantities certified for payment.

8. For the purposes of this Schedule of Quantities, the following words shall have the meanings hereby assigned to them:

Unit	:	The unit of measurement for each item of work as defined in the Standardised, Project or Particular Specifications
Quantity	:	The number of units of work for each item
Rate	:	The payment per unit of work at which the Tenderer tenders to do the work
Amount	:	The product of the quantity and the rate tendered for an item
Lump sum:		An amount tendered for an item, the extent of which is described in the Schedule of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units.

9. The units of measurement indicated in the Schedule of Quantities are metric units. The following abbreviations may appear in the Schedule of Quantities:

mm	=	millimetre
m	=	metre
km	=	kilometre
km-pass	=	kilometre-pass
m^2	=	square metre
m^2-pass	=	square metre-pass
ha	=	hectare
m^3	=	cubic metre
m^3-km	=	cubic metre-kilometre
kW	=	kilo Watt
kN	=	kilo Newton
kg	=	kilogram
t	=	ton (1 000 kg)
%	=	per cent
MN	=	mega Newton
MN-m	=	mega Newton-metre

P C Sum = Prime Cost Sum
Prov Sum = Provisional Sum.

10. The Tenderer shall enter each rate or lump sum for each item in the Schedule of Quantities in BLACK INK.

RFQ NO: XXXX

RFQ TITLE: BRAAMFONTEIN ROLLING STOCK, PROVISION OF SAFE ROOF ACCESS TO PITS 8 AND 9 FOR THE MAINTENANCE OF ROOF MOUNTED EQUIPMENT

SCHEDULE 1 OHTE ALTERATIONS TO THE LIFELINE SUPPORT STRUCTURES

SECTION: 1 PRELIMINARY AND GENERAL

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
1.1	Carried over from Contract document:				
1.1.1	Fixed Amount	sum	1		
1.1.2	Subject to duration of contract	sum	1		
1.2	Costs attributable to Work on, over, under or adjacent to railway lines (SPK 7/1)				
1.2.1	Fixed Amount	sum	1		
1.2.2	Subject to duration of contract	sum	1		
1.2.3	Training of PRASA staff to operate interlocking devices	days	1		
1.3	SITE FACILITIES				
1.3.1	Arrange site, clear, establish buildings fencing, water, sewer, electricity and communication.	sum	1		
1.3.2	De-Establish site, clear, buildings fencing, water, sewer, electricity and communication costs.	sum	1		
1.3.3	Security, rent, supervision, water and electricity, levies and all associated monthly cost to maintain site camp for the duration of the contract.	sum	1		
TOTAL FOR SECTION 1 CARRIED FORWARD TO SCHEDULE 1 SUMMARY PAGE					

RFQ NO: XXXX

RFQ TITLE: BRAAMFONTEIN ROLLING STOCK, PROVISION OF SAFE ROOF ACCESS TO PITS 8 AND 9 FOR THE MAINTENANCE OF ROOF MOUNTED EQUIPMENT

SCHEDULE 1 OHTE ALTERATIONS TO THE LIFELINE SUPPORT STRUCTURES

SECTION: 2 SUPPLY, TRANSPORT AND INSTALL NEW STEEL, ASSOCIATED SMALL PART COMPONENTS AND EQUIPMENT

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
2.1	**Push-Pull-Off arrangement to detail (To CEE-TPF-5, 3 300mm Long) This rate to include, but not be limited to; PPO tube (cut to final size), tie-wire, suspension clamp with tie-down facility for the catenary and all bolts, nuts, clamps, thimbles, pins etc complete to detail.**				
2.1.1	Labour	item	4		
2.1.2	Material	item	4		
2.2	**Pull-Off arrangement to detail (0.5m to1.5m Long) This rate to include, but not be limited to; Pull-Off wire, suspension clamp with tie-down, catenary wire "tie-wire" and all bolts, nuts, clamps, thimbles, pins, crosby clips etc complete to detail.**				
2.2.1	Labour	item	4		
2.2.2	Material	item	4		
2.3	**Steady Arm Attachment to CEE-TMFB-124, with varying lengths from 170mm to 1 000mm Long secured to concrete column with chemical anchors. (Orientation of clamping bracket to match existing Running Shed cross-span brackets)**				
2.3.1	Labour	item	8		
2.3.2	Material	item	8		
2.4	**Steady arm to CEE-TND-19 secured to Steady arm attachment complete with swivel clip, steady arm socket and all bolts, nuts pins etc to secure steady arm complete.**				
2.4.1	Labour	item	12		
2.4.2	Material	item	12		
2.5	**3kV porcelain insulator (3rd insulator or "Bell-insulator") secured to adaptor plate and steady-arm attachment bracket.**				
2.5.1	Labour	item	8		Rate Only
2.5.2	Material	item	8		Rate Only
2.6	**3kV DC composite compression insulator to CEE-TNC-04 complete with mounting clevis pins and split pins complete.**				
2.6.1	Labour	item	16		
2.6.2	Material	item	16		
	CARRIED FORWARD				

RFQ NO: **XXXX**

RFQ TITLE **: BRAAMFONTEIN ROLLING STOCK PROVISION OF SAFE ROOF ACCESS ON PITS 8 & 9 (PHASE 1) FOR THE MAINTENANCE OF ROOF-MOUNTED EQUIPMENT**

BILL OF QUANTITIES

SCHEDULE 2: REHABILITATION OF EXISTING LIFE LINE SUPPORT STRUCTURES

SECTION A: INDEX

SECTION	INDEX	PAGE
Section A	PITS 8 AND 9: REHABILITATION OF EXISTING LIFE LINE SUPPORT STRUCTURES	
Section A1	General	2
Section A2	Site Clearance	3
Section A3	Concrete	4
Section A4	Structural Steelwork	5
Section A5	Structural Steelwork Sundry	6
Section A6	Corrosion Protection of Structural Steelwork	7

RFQ NO: **XXXX**

RFQ : BRAAMFONTEIN ROLLING STOCK PROVISION OF SAFE ROOF ACCESS ON SCHEDULE 2: REHABILITATION OF EXISTING LIFE LINE SUPPORT STRUCTURES **BILL OF QUANTITIES**

SECTION: A1 GENERAL

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE R	AMOUNT R
1.1		Contractors' establishment on site and preliminary & general obligations	Sum	1		
1.2		Provision for Occupational Health and Safety (OHS) provision and compliance (administration, safety officer, safety file, etc)	Sum	1		
1.3		Ground Penetrating Radar (GPR) scanning of existing concrete structures to identify reinforcement, embedded services and obstructions, including report	m2	15		
1.4		Pull-out testing of installed anchor bolts, including testing (including proof-load testing of holding-down bolt and certified test results), certification and reporting.	No	25.00		
TOTAL FOR SECTION A1 CARRIED FORWARD TO SCEHULE 2 SUMMARY						

RFQ NO: XXXX

RFQ TITLE: BRAAMFONTEIN ROLLING STOCK, PROVISION OF SAFE ROOF ACCESS TO PITS 8 AND 9 FOR THE MAINTENANCE OF ROOF MOUNTED EQUIPMENT

SCHEDULE: 3 LIFELINES ON SUPPORT STRUCTURES 8 AND 9 AND PORTABLE WINDSCREEN ACCESS PLATFORMS

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	LIFELINE EQUIPMENT				
1.0	Supply and Install Lifeline cable, 8mm 1 x 19 strand stainless steel, 136m long, c/w 18kN energy absorber on one end and swaged toggle connector at the other end to support 3 x 100kg users.	each	2		
2.0	Supply and Install Intermediate brackets that will be mounted on the support structures at 12m spacing, 11 per lifeline cable.	each	22		
3.0	Supply and Install Overhead traveller with stainless steel rollers, 3 per lifeline cable.	each	6		
4.0	Supply and Install Retractable fall arrest lifeline, for 100kg mass user and with 0,5m free fall with 6m stainless cable lifeline, 3 per lifeline cable.	each	6		
5.0	Supply and Install Retractable fall arrest lifeline, for 100kg mass user and with 0,5m free fall with 6m webbing lifeline.	each	0		Rate Only
6.0	Installation and testing: roads 8 and 9.	each	1		
7.0	Training upon completing of roads 8 and 9.	each	1		
	PORTABLE WINDSCREEN ACCESS PLATFORMS				
8.0	Supply and Install Portable Windscreen Access platform to specification and tender drawings.	each	3		
	NET TOTAL OF SCHEDULE 3 - CARRIED FORWARD TO MAIN SUMMARY				

RFQ NO: XXXX

RFQ TITLE: BRAAMFONTEIN ROLLING STOCK, PROVISION OF SAFE ROOF ACCESS TO PITS 8 AND 9 FOR THE MAINTENANCE OF ROOF MOUNTED EQUIPMENT

MAIN SUMMARY PAGE

SCHEDULE NO	DESCRIPTION		AMOUNT R
1	SCHEDULE 1 -	OHTE ALTERATIONS TO THE LIFELINE SUPPORT STRUCTURES	
2	SCHEDULE 2 -	REHABILITATION OF EXISTING LIFE LINE SUPPORT STRUCTURES	
3	SCHEDULE 3 -	LIFELINES ON SUPPORT STRUCTURES 8 AND 9 AND PORTABLE WINDSCREEN ACCESS PLATFORMS	
		NET TOTAL OF TENDER	
		ADD CONTINGENCIES 10.00% OF NET TOTAL	
		TENDER AMOUNT	
		ALLOWANCE FOR VAT AT 15.00%	
		TOTAL TENDER SUM CARRIED FORWARD TO TENDER FORM	