



KWAZULU-NATAL PROVINCE

TRANSPORT
REPUBLIC OF SOUTH AFRICA

DIRECTORATE:

Financial Services

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ADDENDUM NO. 01:

CONTRACT NO.: ZNB 00921/00000/00/HOD/INF/21/T

CONSTRUCTION OF EARTHWORKS, LAYERWORKS AND DRAINAGE ON MAIN ROAD P700 FROM KM 68,00 TO KM 75,00 IN THE KING CETSWAYO DISTRICT OF THE EMPANGENI REGION

Date Issued: **02 February 2023**

This Addendum No. 01 comprises a total of **FORTY ONE (41) PAGES**, including this page.

The addendum serves to re-insert into the tender document the main contractor's bill of quantities (Part C2.2 of the Contract Section) and the CPG subcontractors' bill of quantities (Part G of the Contract Section). These bills were unintentionally omitted from the version of the tender document that was made available for download.

In making the above corrections, no deviation has been made from the tender document that was supported by the BSC and approved by the BAC.

The amendments required to the tender document are as follows:


Amendment No.	Amendment Required
1	Delete Page C29 in the tender document and replace with pages C29 to C52 attached.
2	Delete Page C203 in the tender document and replace with pages C203 to C218 attached.

Non-acknowledgment of this addendum will lead to disqualification.

The acknowledgment of this addendum must only be submitted with the bid document.

Should you have any queries with regards to the above, please contact Njabulo Vezi or Sandile Nkala.

Yours faithfully


 8-2-2023
 Mr T Nkosi
 Acting CFO

I/We acknowledge receipt of this Addendum No.01 and have made the required alterations to our tender document.

BIDDER:.....

NAME OF SIGNATORY:.....

DATE:.....

SCHEDULE A: ROADWORKS					CHAPTER C1.2	
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT					
C1.2.1	Environmental Management					
C1.2.1.1	Monitoring of compliance with & reporting on EMP	month		14		
C1.2.1.2	Dedicated environmental officer	month		14		
C1.2.2	Programming and Reporting					
C1.2.2.3	Submission of a Scheme 2 Initial Programme	Lump Sum		1		
C1.2.2.4	Submission of a Scheme 2 Full Programme	Lump Sum		1		
C1.2.2.5	Reviewing and updating a Scheme 2 Programme every month	month		14		
PS C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	month		14		
C1.2.3	Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of Works which are used as detours					
C1.2.3.2	Drain cleaning	km	LI	14		
C1.2.3.3	Cleaning out culverts	m ³	LI	100		
C1.2.4	Stakeholder Liaison					
PS C1.2.4.1	Provision of a Project Liaison Officer (PLO)					
	(a) Wages, salary and allowances.	Prov Sum		165 000	R1.00	R 165 000.00
	(b) Handling costs and profit in respect of sub item PS1.2.4.1(a)	%		165 000		
PS C1.2.4.2	Provision for Project Liaison Committee (PLC)					
	(a) Provision for Project Liaison Committee	Prov Sum		40 000	R1.00	R 40 000.00
	(b) Handling costs and profit in respect of sub item PS1.2.4.2(a)	%		40 000		
C1.2.5	Safety					
C1.2.5.1	Health and safety plan	Lump Sum		1		
C1.2.5.2	Implementation of health and safety plan	month		14		
PS C1.2.5.3	Fixed obligations for completing and checking the Project Health & Safety file and handing it over to the Employer on completion of the Works:	Lump Sum		1		
C1.2.7	Road Safety Audits					
C1.2.7.1	Stage 4 work zone traffic management audit	Prov Sum		30 000	R1.00	R 30 000.00
C1.2.7.2	Handling cost, profit and all other charges in respect of item C1.2.7.1	%		30 000		
C1.2.7.3	Stage 5 pre-opening stage traffic safety audit	Prov Sum		30 000	R1.00	R 30 000.00
C1.2.7.4	Handling costs and profit in respect of item C1.2.7.3	%		30 000		
C1.2	TOTAL CARRIED FORWARD					

SCHEDULE A: ROADWORKS				CHAPTER C1.2		
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
C1.2.8	Dayworks					
C1.2.8.1	Personnel					
(a)	Unskilled labourer	hour	LI	240		
(b)	Semi-skilled labourer	hour	LI	80		
(e)	Foreman	hour		40		
(f)	Skilled Artisan	hour		40		
C1.2.8.2	Construction Equipment					
(d)	Front End Loader	hour		90		
(e)	Tractor loader backhoe	hour		180		
(h)	Other equipment					
i)	Water tanker and spraybar (up to 10000l)	hour		90		
ii)	Tip Truck7 - 9.9 m³ related capacity	hour		40		
C1.2.8.3	Vehicles					
(a)	Light delivery vehicle (minimum 1600 cc)	km		500		
(b)	Flatbed truck (minimum 7t capacity with 5t crane)	km		500		
C1.2.8.4	Materials					
(a)	Procurement of materials	Prov Sum		50 000	R1.00	R 50 000.00
(b)	Contractor's handling costs, profit and all other charges in respect of item C1.2.8.4(a)	%		50 000		
C1.2 / C2.1.1	Location, identification and relocation of existing services					
C1.2 / C2.1.1.2	Permanent services relocation or protection work by others	PC Sum		50 000	R1.00	R 50 000.00
C1.2 / C2.1.1.3	Handling costs and profit in respect of item C2.1.1.2 above	%		50 000		
C1.2 / C2.1.1.4	Permanent services relocation or protection work by the Contractor	Prov Sum		20 000	R1.00	R 20 000.00
C1.2 / C2.1.3	Obtaining construction or work permits	Lump Sum		1		
C1.2 / C2.1.5	Provision of record drawings and applicable data	Lump Sum		1		
C1.2 / C9.1.1	Asphalt mix designs					
C1.2 / C9.1.1.1	Stone skeletal mixes:					
(a)	Continuously graded base or surfacing (Continuously graded, medium grade, 50mm thick, paver-laid with 60/70 pen bitumen)	Lump Sum		1		
C1.2	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)					

SCHEDULE A: ROADWORKS				CHAPTER C1.3		
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS					
C1.3.1	The Contractor's general obligations					
C1.3.1.1	Fixed obligations	Lump Sum		1		
C1.3.1.3	Time-related obligations	month		14		
C1.3.2	Contract sign boards	m ²		10		
C1.3 / C1.5.8	Traffic safety officer	Man-month		14		
C1.3	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)					

SCHEDULE A: ROADWORKS					CHAPTER C1.4	
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C1.4	FACILITIES FOR THE ENGINEER					
C1.4.1	Site accommodation					
C1.4.1.13	Rented housing paid for by the Contractor	Prov Sum		337 500	R1.00	R 337 500.00
C1.4.1.13	Contractors handling costs, profit and all other charges in respect of C1.4.1.13	%		337 500		
C1.4.4	Prime cost items					
C1.4.4.1	Cell phones costs, including pro-rate rentals, for calls made in connection with contract administration	PC Sum		60 000	R1.00	R 60 000.00
C1.4.4.2	Handling cost and profit in respect of item C1.4.4.1	%		60 000		
C1.4.4.5	The provision of internet connectivity and WiFi data for Engineer's site staff	PC Sum		100 000	R1.00	R 100 000.00
C1.4.4.5	Handling cost and profit in respect of item C1.4.4.5	%		100 000		
C1.4.4.7	The provision of paper and ink for a combination colour printer/copier/scanner	PC Sum		54 000	R1.00	R 54 000.00
C1.4.4.8	Handling cost and profit in respect of item C1.4.4.7	%		54 000		
C1.4.5	Services at site offices, laboratories and site accommodation					
C1.4.5.1	Fixed costs	Lump Sum		1		
C1.4.5.2	Running costs	month		14		
C1.4.8	Site security measures for the Engineer's facilities					
C1.4.8.1	Supply and installation of all required security measures at the Engineer's site offices and laboratories (2 x Floodlights complete with poles and minimum 500 watt globes)	Lump Sum		1		
C1.4.8.2	Provision of security guards / watchmen and an armed response service at the Engineer's site offices and laboratories	month		14		
PS C1.4.8.7	Provision of armed security guards for use by the Engineer					
(a)	Provision of armed security guards for use by the Engineer as and when required	PC Sum		140 000	R1.00	R 140 000.00
(b)	Handling costs and profit in respect of subitem PS C1.4.8.7 (a) above	%		140 000		
PS C1.4.9	In-service training for S3 / S4 students:					
(a)	Provision of in-service training for one locally based student	PC Sum		120 000	R1.00	R 120 000.00
(b)	Handling costs and profit in respect of subitem PS C1.4.9 (a) above	%		120 000		
PS C1.4.10	Provision of unskilled labour for use by the Engineer					
(a)	Wages salaries and allowances	PC Sum	LI	90 000	R1.00	R 90 000.00
(b)	Handling costs	%		90 000		
C1.4	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)					

SCHEDULE A: ROADWORKS						CHAPTER C3.3
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C3.3	CONCRETE KERB & CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS					
C3.3.2	Concrete kerbing-channeling combination:					
C3.3.2.1	Prefabricated kerbing-channeling (Figure 6 channel to SABS 927 Class 25/19 as per SD0701/A)					
(a)	Precast kerb and Figure 6 channel to SABS 927 Class 25/19, on straight and curves as per SD0701/A	m	LI	2 700		
(b)	Extra over (a) for radius less than 20m	m	LI	40		
PS C3.3.6	HDPE chutes :					
PS C3.3.6.1	375mm diameter class 16 ribbed as per SD0605/A or SD0702/A	m	LI	150		
PS C3.3.8	Linings for open drains:					
PS C3.3.8.1	Cast in situ concrete lining (Class 20/19)					
i)	For standard vee drain as per drawing SD0601/4	m ³	LI	660		
ii)	For open drains adjacent to catchwater banks	m ³	LI	30		
C3.3.8.2	Class U2 surface finish to cast in situ concrete (as per items PC C3.3.8.1 (i) and (ii) above)	m ²	LI	5 760		
C3.3.9	Formwork to cast in situ concrete lining for open drains (Class F2 surface finish):					
C3.3.9.1	To sides with formwork on the internal face only	m ²	LI	1 320		
C3.3.9.3	To ends of slabs	m ²	LI	120		
C3.3.10	Sealed joints in concrete and stone pitched linings of open drains (Closed cell expanded polyethylene sealants)	m	LI	600		
C3.3.12	Reinforcement:					
C3.3.12.3	Welded steel fabric (Ref 193)	kg	LI	11 100		
C3.3.13	Polymer film sheeting (0,15 mm thick) for concrete-lined open drains	m ²	LI	5 760		
PS C3.3.17	Inlet, outlet, transition and similar structures (typical designs):					
PS C3.3.17.1	(a) Drop Inlet as detailed in Drawing Standard Detail SD 0702/A	No	LI	18		
	(b) Outlets for HDPE Chutes as per SD0406 (450mm dia)	No	LI	18		
PS C3.3.18	Trimming of excavations for concrete-lined open drains					
(a)	in soft material (by hand)	m ²	LI	5 760		
C3.3	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)					

SCHEDULE A: ROADWORKS						CHAPTER C4.1
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C4.1	BORROW MATERIALS					
C4.1.15.2	Finishing of the borrow pit and quarry areas, and the stockpile sites using labour enhanced methods of construction:					
(a)	Borrow pits					
i)	km 69,6 LHS	ha	LI	2.00		
ii)	km 70,3 RHS	ha	LI	0.75		
C4.1	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)					

SCHEDULE A: ROADWORKS						CHAPTER C4.2		
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region								
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT		
C4.2	CUT MATERIALS							
C4.2.3	Excavating of materials in cuttings, material obtained from							
C4.2.3.1	Soft excavation	m ³	LI	2 500				
C4.2.7	Removal of unsuitable stable cut material to spoil							
C4.2.7.1	In layer thicknesses of 200 mm and less	m ³		1 500				
C4.2.12	Finishing the side slopes							
C4.2.12.1	Cuttings:							
	(d) In soft material using labour enhanced methods of construction	m ²	LI	18 000				
C4.2.12.3	Designated excavations using labour enhanced methods of construction	m ²	LI	15 000				
C4.2 / C1.7.1.1	Loading from stockpile using machines and some hand labour where necessary	m ³	LI	4 500				
C4.2 / C1.7.2.1	Hauling material for use in the Works and off-loading it on the site of the Works:	m ³ -km		50 000				
C4.3	EXISTING PAVEMENT MATERIALS							
C4.3.9	Excavating material by using conventional road construction equipment							
C4.3.9.2	Crushed stone and macadam materials (Note: rate includes for excavating, windrowing and loading existing G1 layer for use in adjacent shoulders).	m ³		4 300				
C4.2	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)							

SCHEDULE A: ROADWORKS						
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						CHAPTER C4.4
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C4.4	COMMERCIAL MATERIALS					
C4.4.2	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers					
C4.4.2.1	Pavement layer material:					
(a)	Type G1 material	m ³		9 300		
(d)	Type G4B material	m ³		5 150		
(j)	Type G7 material	m ³		4 250		
(l)	Type G9 material	m ³		1 000		
(p)	Natural or crushed gravel material for an unsealed shoulder layer (G7)	m ³		300		
C4.4.2.5	Fill material in the earthworks:					
(a)	Normal or coarse fill	m ³		2 500		
PS C4.4.4	Cementitious stabilising agents					
PS C4.4.4.1	Cement	t		330		
C4.4	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)					

SCHEDULE A: ROADWORKS

CHAPTER C5.2

The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region

ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C5.2	FILL					
C5.2.2	Fill construction					
C5.2.2.1	Normal fill material in compacted layer thicknesses of 200 mm and less:					
(a)	Compacted to 90% MDD	m ³		3 800		
C5.2.11	Finishing off fill slopes, medians & interchange areas					
C5.2.11.1	Fill slopes	m ²	LI	25 000		
C5.2/ C1.7.1.1	Loading from stockpile using machines and some hand labour where necessary	m ³		4 500		
C5.2/ C1.7.2.1	Hauling material for use in the Works and off-loading it on the site of the Works:	m ³ km		36 000		
C5.2	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)					

SCHEDULE A: ROADWORKS						CHAPTER C5.3	
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region							
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT	
C5.3	ROAD PAVEMENT LAYERS						
C5.3.1	Compiling and implementing M&U plans for the construction of all the pavement layers	No		1			
C5.3.2	Construction of pavement layers						
C5.3.2.1	Construction of layers using conventional construction methods:						
(a)	Lower selected gravel layer (150mm) compacted to 93% of MDD	m³		1 000			
(c)	Upper selected gravel layer (150mm) compacted to 93% of MDD	m³		900			
(h)	Gravel shoulder layer (300mm) compacted to 95% of MDD	m³		6 300			
(j)	Lower subbase gravel layer (stabilised C3) (150mm) compacted to 95% of MDD	m³		800			
(l)	Upper subbase gravel layer(stabilised C3) (150mm) compacted to 95% of MDD	m³		4 350			
(aa)	G1 crushed stone base layer (layer thickness indicated) compacted to 88 % of AD	m³		9 300			
C5.3 / C1.7.2.1	Hauling material for use in the Works and off-loading it on the site of the Works:	m³km		13 400			
C5.3	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)						

SCHEDULE A: ROADWORKS						CHAPTER C5.4
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C5.4	STABILISATION					
C5.4.2	Chemical stabilisation					
C5.4.2.1	Chemical stabilisation (150mm) of pavement layers					
(a)	Upper Subbase	m ³		1 380		
(b)	Lower Subbase	m ³		1 380		
C5.4.5	Cementitious stabilisation agents for pavement layers					
PS C5.4.5.2	Addition of cementitious stabilisation agents (specify agent seperately) for pavement layers and spreading the agent using bags and labour enhancement methods.					
(a)	Cement	t	LI	210		
C5.4.10	Provision and application of water for curing	kℓ		2 000		
C5.4.11	Curing by covering with subsequent layer	m ²		16 000		
C5.4	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)					

SCHEDULE A: ROADWORKS						CHAPTER C8.1
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C8.1	PRIME COAT					
C8.1.1	Prime coat:					
C8.1.1.2	MC-30 cut-back bitumen	ℓ		50 500		
C8.1.2	Aggregate for Blinding					
C8.1.2.1	Natural sand	m ³	LI	100		
C8.1.3	Extra over item C8.1.1 for applying the prime coat accessible only to hand-held or light equipment	ℓ	LI	5 000		
C8.1 TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)						

SCHEDULE A: ROADWORKS						CHAPTER C8.5
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C8.5	STANDARD CRACK SEALING					
C8.5.1	Standard crack sealing					
C8.5.1.1	Cleaning cracks					
(a)	Cleaning cracks with cold compressed air	m	LI	250		
C8.5.1.4	Sealing the cracks					
(a)	Sealing using ("Colflex" or similar approved, hot-applied)	ℓ	LI	30		
(b)	Sealing using ("Colseal" or similar approved, cold-applied)	ℓ	LI	25		
C8.5.1.5	Heating of surface before rolling	m	LI	200		
C8.5.1.6	Rolling the cracks	m	LI	200		
C8.5 TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)						

SCHEDULE A: ROADWORKS.						CHAPTER C9.1		
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region								
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT		
C9.1	ASPHALT LAYERS							
C9.1.3	Application of bond coat							
C9.1.3.1	Stable grade 30% net bitumen emulsion as specified. Applied with a calibrated distributor	ℓ		8 125				
C9.1.5	Asphalt surfacing							
C9.1.5.1	New construction							
	(a) Stone skeletal mix - continuously graded (50mm thick, 60/70 pen bitumen, medium grade, paver laid)	m ²		40 300				
C9.1	TOTAL CARRIED FORWARD TO SUMMARY							

SCHEDULE A: ROADWORKS						CHAPTER C11.8
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C11.8	LANDSCAPING AND PLANTING PLANTS					
C11.8.1	Trimming:					
C11.8.1.1	Machine trimming	m ²		32 000		
C11.8.1.2	Hand trimming	m ²	LI	6 000		
C11.8.3	Preparing the areas for grassing:					
C11.8.3.3	Topsoiling within the road reserve where the following materials are used:					
(b)	Topsoil obtained from commercial sources by the Contractor	m ³	LI	15 000		
C11.8.3.4	Topsoiling of borrowpits by using topsoil obtained from borrow areas or from the road reserve	m ³		2 700		
C11.8.3.5	Providing and applying chemical fertilisers and/or soil-improvement material:					
(a)	Lime	t		2		
(d)	2:3:2 (22)	t		2		
C11.8.4	Grassing					
C11.8.4.2	Sodding by using the following types of sods:					
(a)	Nursery sods (Buffalo grass)	m ²	LI	2 000		
C11.8.4.3	Hydroseeding:					
(a)	Providing an approved seed mixture for hydroseeding	kg		800		
(c)	Hydroseeding	ha		20		
C11.8.6	Watering the already planted grass, trees and shrubs during the growing season	kℓ	LI	1 000		
C11.8.10	Unspecified work for landscaping	Prov Sum		64 200	R 1.00	R 64 200.00
C11.8 / C1.7.2.1	Overhaul on material hauled in excess of 1,0km (ordinary overhaul)	m ³ km		2 000		
C11.8	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS						CHAPTER C11.9
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C11.9	FINISHING THE ROAD & ROAD RESERVE & TREATING OLD ROADS					
C11.9.1	Finishing the road and road reserve:					
C11.9.1.2	Single carriageway road	km		7		
C11.9.2	Treatment of old roads and temporary deviations					
C11.9.2.1	Conventional construction methods	km		8		
C11.9 TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)						

SCHEDULE A: ROADWORKS						CHAPTER C20.1
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C20.1	TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP					
C20.1.2	Special tests requested by the Engineer					
C20.1.2.2	Employer's contribution to other special tests					
(a)	Materials testing for Engineer's Acceptance Control	PC Sum		4 200 000	R1.00	R 4 200 000.00
(a.i)	Handling costs and profit in respect of item C20.1.2.2(a)	%		4 200 000		
C20.1.5	Financial contribution for an independent site/commercial laboratory	month		14		
	The rate tendered for payment item C20.1.5 shall be less than or equal to zero. Any positive rate tendered shall be corrected to zero prior to award of the Contract.					
C20.1	TOTAL CARRIED FORWARD TO SCHEDULE A (Page C46)					

The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 In the Empangeni Region			
SCHEDULE A: ROADWORKS - SUMMARY			
CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT	C30	
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS	C31	
C1.4	FACILITIES FOR THE ENGINEER	C32	
C3.3	CONCRETE KERB & CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS	C33	
C4.1	BORROW MATERIALS	C34	
C4.2	CUT MATERIALS	C35	
C4.4	COMMERCIAL MATERIALS	C36	
C5.2	FILL	C37	
C5.3	ROAD PAVEMENT LAYERS	C38	
C5.4	STABILISATION	C39	
C8.1	PRIME COAT	C40	
C8.5	STANDARD CRACK SEALING	C41	
C9.1	ASPHALT LAYERS	C42	
C11.8	LANDSCAPING AND PLANTING PLANTS	C43	
C11.9	FINISHING THE ROAD & ROAD RESERVE & TREATING OLD ROADS	C44	
C20.1	TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP	C45	
TOTAL SCHEDULE A: ROADWORKS CARRIED FORWARD TO SUMMARY (Page C52)			

SCHEDULE E: EXPANDED PUBLIC WORKS PROGRAMME (EPWP) The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						CHAPTER F
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
F	EXPANDED PUBLIC WORKS PROGRAMME (EPWP)					
F6.02	Training of learners employed by the contractor or by the Targeted Enterprise subcontractors:					
	(a) Generic Skills:					
(a.i)	Training costs	Prov Sum		40 000	R1.00	R 40 000.00
(a.ii)	Handling costs and profit in respect of subitem E6.02(a)(i) above.	%		40 000		
	(b) Entrepreneurial skills:					
(b.i)	Training costs	Prov Sum		40 000	R1.00	R 40 000.00
(b.ii)	Handling costs and profit in respect of subitem E6.02(b)(i) above.	%		40 000		
	(c) Construction skills:					
(c.i)	Training costs	Prov Sum		250 000	R1.00	R 250 000.00
(c.ii)	Handling costs and profit in respect of subitem E6.02(c)(i) above.	%		250 000		
	(d) Transportation and accommodation costs of selected learners only, while receiving off-site training:					
(d.i)	Transportation and accommodation costs	Prov Sum		150 000	R1.00	R 150 000.00
(d.ii)	Handling costs and profit in respect of subitem E6.02(d)(i) above.	%		150 000		
F6.03	Payments associated with the NYS programme only:					
(a)	Employment of NYS youth workers	PC Sum	LI	440 000	R1.00	R 440 000.00
(b)	Provision of tools and apparel for the NYS workers	PC Sum		30 000	R1.00	R 30 000.00
(c)	Handling cost and profit in respect of subitem F6.03(a) and (b) above	%		470 000		
	(d) Training of NYS youth workers:					
(d.i)	Provision of training for NYS youth workers	PC Sum		400 000	R1.00	R 400 000.00
(d.ii)	Handling costs and profit in respect of subitem subitem F6.03(d)(i) above	%		400 000		
(e)	Liaison with the Employer's project manager and the training service provider:					
(e.i)	Liaison conducted by the Construction Manager	hr		80		
(e.ii)	Liaison conducted by senior site foreman	hr		80		
(f)	EPWP Branding (refer to spec)					
(f.i)	Prime cost sum for EPWP branding	PC Sum		50 000	R1.00	R 50 000.00
(f.ii)	Handling costs and profit in respect of sub item F6.03(f)(i) above	%		50 000		
F	TOTAL CARRIED FORWARD TO SCHEDULE F (Page C48)					

The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region			
SCHEDULE F : EXPANDED PUBLIC WORKS PROGRAMME (EPWP)			
CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
F	EXPANDED PUBLIC WORKS PROGRAMME (EPWP)	C47	
TOTAL SCHEDULE F: EPWP CARRIED FORWARD TO SUMMARY (Page C52)			

SCHEDULE G: SMALL CONTRACTOR DEVELOPMENT						CHAPTER G
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
G	SMALL CONTRACTOR DEVELOPMENT					
G10.1	Procurement of Targeted Enterprises:					
(a)	Management and execution of Targeted Enterprise procurement process:					
(a.i)	Procurement process for the appointment of CIDB contractor grading designation 1 Targeted Enterprise subcontractor (100 copies of the tender document required for each individual tender)	No		8		
(a.ii)	Procurement process for the appointment of CIDB contractor grading designation 2 Targeted Enterprise subcontractor (80 copies of the tender document required for each individual tender)	No		5		
(a.iii)	Procurement process for the appointment of CIDB contractor grading designation 3 Targeted Enterprise subcontractor (60 copies of the tender document required for each individual tender)	No		2		
(a.iv)	Procurement process for the appointment of CIDB contractor grading designation 4 Targeted Enterprise subcontractor (50 copies of the tender document required for each individual tender)	No		1		
(a.v)	Procurement process for the appointment of CIDB contractor grading designation 5 Targeted Enterprise subcontractor (40 copies of the tender document required for each individual tender)	No		1		
G10.2	Construction Works for Targeted Enterprise subcontractors:					
(a)	Payments associated with the construction Works carried out by Targeted Enterprise subcontractors	Prov Sum		22 664 920	R1.00	R 22 664 920.00
(b)	Handling costs and profit in respect of subitem F10.02(a)	%		22 664 920		
(c)	Supply of materials and small construction equipment to assist Targeted Enterprise subcontractors	Prov Sum		2 518 320	R1.00	R 2 518 320.00
(d)	Handling costs and profit in respect of subitem F10.02(c)	%		2 518 320		
(e)	Management of the Targeted Enterprise subcontractors	Month		13		
G	TOTAL CARRIED FORWARD					

SCHEDULE G: SMALL CONTRACTOR DEVELOPMENT						CHAPTER G
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
G10.03	Training of Targeted Enterprise subcontractors:					
	(a) Generic Skills					
(a.i)	Training costs	Prov Sum		250 000	R1.00	R 250 000.00
(a.ii)	Handling costs and profit in respect of subitem F10.03(a)(i)	%		250 000		
	(b) Entrepreneurial skills:					
(b.i)	Training costs	Prov Sum		250 000	R1.00	R 250 000.00
(b.ii)	Handling costs and profit in respect of subitem F10.03(b)(i)	%		250 000		
	(c) Construction skills:					
(c.i)	Training costs	Prov Sum		300 000	R1.00	R 300 000.00
(c.ii)	Handling costs and profit in respect of subitem F10.03(c)(i)	%		300 000		
	(d) Transportation and accommodation costs of selected learners only, while receiving off-site training:					
(d.i)	Transportation and accommodation costs	Prov Sum		100 000	R1.00	R 100 000.00
(d.ii)	Handling costs and profit in respect of subitem F10.03(d)(i)	%		100 000		
G	TOTAL CARRIED FORWARD TO SCHEDULE G (Page C51)					

The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region			
SCHEDULE G : SMALL CONTRACTOR DEVELOPMENT			
CHAPTER	DESCRIPTION	FROM PAGE	AMOUNT
G	SMALL CONTRACTOR DEVELOPMENT	C50	
TOTAL SCHEDULE F: SMALL CONTRACTOR DEVELOPMENT CARRIED FORWARD TO SUMMARY (Page C52)			

The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region		
C2.3 SUMMARY OF BILL OF QUANTITIES		
SCHEDULE	FROM PAGE	AMOUNT
SCHEDULE A: ROADWORKS - SUMMARY	C46	
SCHEDULE F : EXPANDED PUBLIC WORKS PROGRAMME (EPWP)	C48	
SCHEDULE G : SMALL CONTRACTOR DEVELOPMENT	C51	
SUBTOTAL 1		
CONTINGENCIES (10.0% of Subtotal 1)		
SUBTOTAL 2		
CONTRACT PRICE ADJUSTMENT AND RISE & FALL (8.0% of Subtotal 2)		
SUBTOTAL 3		
VAT (15% of Subtotal 3)		
TOTAL CARRIED FORWARD TO FORM OF OFFER		

Signed on behalf of the Tenderer: (Signature)

Date:

Tenderer's Name: (Company Name)

DISCLAIMER

Kindly note that the responsibility lies with Tenderer to check the tender document and the tender addenda (if issued) to verify that all the information is correct and all changes have been incorporated as no claims will be entertained in this regard afterwards. Accordingly, we confirm that the hard copies of the original tender document and the tender addenda are to be regarded to contain the correct items and quantities.

SCHEDULE A: ROADWORKS					CHAPTER C1.2	
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C1.2	GENERAL REQUIREMENTS AND PAYMENT					
C1.2.1	Environmental Management					
C1.2.1.1	Monitoring of compliance with and reporting on the EMP	month		13		
C1.2.2	Programming and Reporting					
C1.2.2.1	Submission of a Scheme 1 Programme	Lump Sum		1		
C1.2.2.2	Reviewing and updating a Scheme 1 Programme every month	month		13		
C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	month		13		
C1.2.5	Safety					
C1.2.5.1	Health and safety plan	Lump Sum		1		
C1.2.5.2	Implementation of health and safety plan	month		13		
C1.2.8	Dayworks					
C1.2.8.1	Personnel					
(a)	Unskilled labourer	hour	LI	140		
(b)	Semi-skilled labourer	hour	LI	24		
(c)	Skilled labourer	hour		24		
(d)	Gang leader	hour		32		
C1.2.8.2	Construction Equipment					
(b)	Vibratory roller					
i)	Up to 1,0m wide & mass 0.5t	hour		3		
ii)	More than 80kW and mass 8t	hour		16		
(e)	Tractor Loader Backhoe	hour		24		
(f)	Excavator (on tracks up to 100kW and mass of 25t)	hour		16		
(h)	Other equipment					
i)	Water tanker and spraybar (up to 10000l)	hour		16		
ii)	Rammer compactor	day		3		
C1.2.8.4	Materials					
(a)	Procurement of materials	Prov Sum		20 000		
(b)	Contractor's handling costs, profit and all other charges in respect of item C1.2.8.4(a)	%		20 000		
C1.2	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS					CHAPTER C1.3	
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS					
C1.3.1	The Contractor's general obligations					
C1.3.1.1	Fixed obligations	Lump Sum		1		
C1.3.1.3	Time-related obligations	month		13		
C1.3	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS						CHAPTER C1.5	
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region							
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT	
C1.5	ACCOMMODATION OF TRAFFIC						
C1.5.1.1	Accommodation of pedestrian and non-motorised traffic	month		14			
C1.5.2	Accommodation of vehicular traffic						
		month		14			
C1.5.4	Construction of temporary deviations						
C1.5.4 / C4.1.5.1	Soft excavation	m ³		24 000			
C1.5.4 / C5.2.2.1	Normal fill material						
(a)	Compacted to 93% MDD	m ³		24 000			
C1.5.5	Maintenance of temporary deviations						
C1.5.5.2	Drain cleaning	km	LI	5			
C1.5.5.3	Cleaning out culverts	m ³	LI	20			
C1.5.5.9	Grading of temporary deviations and existing roads used as detours	km		1 200			
C1.5.5.10	Watering of temporary deviations and existing roads used as detours	kl		25 000			
C1.5.6	Removal of temporary deviations						
		km		7			
C1.5.7	Temporary traffic control facilities						
C1.5.7.1	Delineators including mounting bases and ballast:						
(a)	Single sided, reversible left or right (TW401 / TW402, 600 mm x 150 mm)	No	LI	1 200			
(b)	Double sided, reversible left or right (TW401 / TW402, 600 mm x 150 mm)	No	LI	120			
(c)	Movable barricade / road sign combination (TW411 (2400 mm x 400 mm) + TR103 / TR104 (1200 mm diameter))	No	LI	8			
C1.5.7.2	Traffic cones, minimum height 750 mm	No	LI	20			
C1.5.7.3	Flagmen	man-shift	LI	3 200			
C1.5.7.5	Provision of illuminated traffic signs						
(a)	Sign mounted flashing amber lights (2 lights with the specified power supply) mounted on a backing board which is:	No	LI	2			
(c)	Illuminated road sign - R & TR series (1200 mm diameter)	No	LI	25			
(d)	Illuminated road sign - TW series (triangular, 1500 mm sides)	No	LI	20			
C1.5.7.8	Traffic control stations	month	LI	6			
C1.5	TOTAL CARRIED FORWARD						

SCHEDULE A: ROADWORKS **CHAPTER C1.5**

The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD					
C1.5.8	Traffic safety officer	man-month	18		
C1.5.9	Traffic safety vehicle	month	14		
C1.5.11 Provision of safety equipment for visitors					
C1.5.11.1	Provision of reflective safety vests for visitors	No	4		
C1.5.11.2	Provision of hard hats for visitors	No	4		
PS C1.5.14 The provision and maintenance of traffic safety equipment for use by the Engineer					
(a)	Amber flashing lights magnetically attached to vehicles	No	10		
(c)	Provision of high visibility reflective safety vests	No	3		
C1.5	TOTAL CARRIED FORWARD TO SUMMARY				

SCHEDULE A: ROADWORKS

CHAPTER C1.6

The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region

ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C1.6 PS C1.6.1 C1.6.1.1	CLEARING AND GRUBBING Clearing Clearing with machines and some hand labour where necessary	ha		3		
C1.6	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS

CHAPTER C3.1

The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region

ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C3.1	DRAINS					
C3.1.1	Excavation for open drains:					
C3.1.1.1	Excavating all material situated within the following depth ranges below the surface level using conventional methods :					
(a)	0m to 1.5m	m ³		1 500		
C3.1.1.2	Extra over sub-item C3.1.1.1 for excavation in hard and boulder material , irrespective of depth	m ³		500		
C3.1.1.4	Excavating soft material situated 0m to 1.5m below the surface level using labour enhanced construction methods	m ³	LI	800		
C3.1.2	Clearing, shaping and disposal of accumulated sediment in existing unlined open drains					
C3.1.2.2	Using labour enhanced construction methods	m ³	LI	400		
C3.1.3	Excavation, clearing and disposal of accumulated sediment in existing lined drains and drainage systems					
C3.1.3.3	Using labour enhanced construction methods :					
(a)	Manholes and inlet and outlet structures	m ³	LI	400		
(b)	Culvert barrels	m ³	LI	200		
(c)	Concrete and other lined side drains	m ³	LI	200		
C3.1.4	Excavation and disposal of material for subsoil drainage systems					
C3.1.4.1	Excavating in all material situated within the following depth ranges below the surface :					
(a)	0m to 1.5m	m ³		800		
C3.1.4.4	Extra over sub-item C3.1.4.1 for excavation in hard and boulder material, irrespective of depth	m ³		750		
C3.1.5	Impermeable backfilling to subsoil drainage system					
C3.1.5.1	Un-stabilised natural gravel obtained from approved sources on the site	m ³		200		
C3.1.6.2	Bank and dykes using labour enhanced construction methods	m ³	LI	6000		
C3.1.7.2	Crushed stone obtained from commercial sources (Coarse Grade 19mm)	m ³		250		
C3.1.8.2	Natural sand from commercial sources (Coarse grade 4,75mm nominal particle size)	m ³		250		
C3.1	TOTAL CARRIED FORWARD					

SCHEDULE A: ROADWORKS

CHAPTER C3.1

The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region

ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						R 1 834 000.00
C3.1.9	Pipes in subsoil drainage systems :					
C3.1.9.1	U-PVC pipes and fittings , normal duty, complete with coupling					
(a)	100 mm internal dia. perforated or slotted	m	LI	800		
(b)	100 mm internal dia. unperforated	m	LI	100		
C3.1.11	Geotextile (Synthetic, non woven, grade 2)	m ²	LI	2 200		
C3.1.13.1	Outlet structures (SD501/6)	No	LI	8		
C3.1.13.4	Cleaning eyes(SD501/5)	No	LI	20		
C3.1.14	Caps for subsoil drain pipe :					
C3.1.14.1	Concrete caps	No	LI	8		
C3.1	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS					CHAPTER C3.2	
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C3.2	CULVERTS					
C3.2.1	Excavation for culvert structures:					
C3.2.1.2	Excavating soft material 0 m to 1,5 m below the surface level using labour enhanced construction methods, or instructed by hand under Clause A3.2.7.2d):	m ³	LI	480		
C3.2.1.4	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material, irrespective of depth	m ³		70		
C3.2.2	Backfilling:					
C3.2.2.1	Using the excavated material	m ³	LI	440		
C3.2.2.2	Using imported selected material:					
(a)	From commercial sources (G7)	m ³	LI	50		
C3.2.2.4	Extra over sub-items C3.2.2.1 and C3.2.2.2 for screed layers (class 20/20)	m ³		10		
C3.2.3	Concrete pipe culverts:					
C3.2.3.3	On Class C bedding with interlocking joints					
(a)	600mm dia. Type 100D	m	LI	15		
(b)	900mm dia. Type 100D	m		30		
C3.2.5	Rectangular culverts with prefabricated elements					
C3.2.5.1	Prefabricated portal culverts; wall and roof combination (600X450)	m		125		
C3.2.7	Cast in situ concrete and formwork:					
C3.2.7.2	In complete in situ floor slabs for rectangular culverts, manholes and catchpits including formwork, joints and Class U2 surface finish (class of concrete indicated) (installed at a standard depth of 1,0 m)	m ³	LI	22		
PS C3.2.7.8	Extra over items C3.2.7.1, C3.2.7.2 and C3.2.7.5 for concrete batched on site	m ³	LI	22		
PS C3.2.28	Inlet and outlet structures to culverts as shown on Standard Detail Drawings SD 0405/A, SD 0406 and SD 0407 as follows:					
(a)	Inlets and outlets as per SD 0406 & SD 0407 for:					
i)	1 x 600 mm diameter pipe	No	LI	30		
ii)	1 x 900 mm diameter pipe	No	LI	3		
iii)	1 x 600mm x 450mm portal culvert	No	LI	32		
(b)	Depressed inlet as per SD 0405/A for:					
i)	1 x 600 mm diameter pipe	No	LI	2		
C3.2.10	Reinforcement:					
C3.2.10.2	High-tensile steel bars	t	LI	1.3		
C3.2.10.3	Welded steel fabric	kg	LI	300		
C3.2	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS						CHAPTER C3.3
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C3.3	CONCRETE KERB & CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS					
C3.3.2	Concrete kerbing-channeling combination:					
C3.3.2.1	Prefabricated kerbing-channeling (Figure 6 channel to SABS 927 Class 25/19 as per SD0701/A)					
(a)	Precast kerb and Figure 6 channel to SABS 927 Class 25/19, on straight and curves as per SD0701/A	m	LI	1 800		
(b)	Extra over (a) for radius less than 20m	m	LI	40		
PS C3.3.6	HDPE chutes :					
PS C3.3.6.1	375mm diameter class 16 ribbed as per SD0605/A or SD0702/A	m	LI	100		
PS C3.3.8	Linings for open drains:					
PS C3.3.8.1	Cast in situ concrete lining (Class 20/19)					
i)	For standard vee drain as per drawing SD0601/4	m ³	LI	440		
ii)	For open drains adjacent to catchwater banks	m ³	LI	30		
C3.3.8.2	Class U2 surface finish to cast in situ concrete (as per items PC C3.3.8.1 (i) and (ii) above)	m ²	LI	3840		
C3.3.9	Formwork to cast in situ concrete lining for open drains (Class F2 surface finish):					
C3.3.9.1	To sides with formwork on the internal face only	m ²	LI	880		
C3.3.9.3	To ends of slabs	m ²	LI	80		
C3.3.10	Sealed joints in concrete and stone pitched linings of open drains (Closed cell expanded polyethylene sealants)	m	LI	400		
C3.3.12	Reinforcement:					
C3.3.12.3	Welded steel fabric (Ref 193)	kg	LI	7 400		
C3.3.13	Polymer film sheeting (0,15 mm thick) for concrete-lined open drains	m ²	LI	3 840		
PS C3.3.17	Inlet, outlet, transition and similar structures (typical designs):					
PS C3.3.17.1	(a) Drop Inlet as detailed in Drawing Standard Detail SD 0702/A	No	LI	18		
	(b) Outlets for HDPE Chutes as per SD0406 (450mm dia)	No	LI	18		
PS C3.3.18	Trimming of excavations for concrete-lined open drains					
(a)	in soft material (by hand)	m ²	LI	3840		
C3.3	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS						CHAPTER C9.1
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C9.1	ASPHALT LAYERS					
C9.1.2	Construction of trial sections					
C9.1.2.1	Asphalt layers (Continuously graded, medium grade, 50mm thick paver-laid) with 60/70 pen bitumen	m ²		2 000		
C9.1.3	Application of bond coat					
C9.1.3.1	Stable grade 30% net bitumen emulsion as specified. Applied with a calibrated distributor	t		24 375		
C9.1.5	Asphalt surfacing					
C9.1.5.1	New construction					
(a)	Stone skeletal mix - continuously graded (50mm thick, 60/70 pen bitumen, medium grade, paver laid)	m ²		21 700		
C9.1	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS						
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						CHAPTER C11.1
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C11.1	PITCHING, STONEMWORK, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION					
C11.1.2	Stone pitching					
C11.1.2.2	Grouted stone pitching with mortar	m ²	LI	500		
C11.1.2.3	Grouted stone pitching on a concrete bed	m ²	LI	250		
PS C11.1.6	Concrete edge beams (Concrete Class 30MPa with 20mm stone)					
(a)	Beam (0,3m W x 0,2m D) at access roads	m	LI	80		
(b)	Beam (0,12m W x 0,2m D) along road edges	m	LI	200		
(c)	Slab (1,2m x 2,0m x 0,12m) at surface water discharge points susceptible to vegetation growth	No	LI	200		
(d)	Ref 193 welded steel fabric for use in item C11.1.6(c) above	kg	LI	1 000		
C11.1	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS						
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						CHAPTER C11.2
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C11.2	NON-STRUCTURAL GABIONS					
C11.2.1	Foundation trench excavation:					
C11.2.1.1	Excavating all material situated within the following depth ranges below the surface level					
(a)	0 m to 1,5 m	m ³		100		
C11.2.2	Surface preparation for bedding the gabion boxes and mattresses	m ²	LI	100		
C11.2.3	Gabion boxes and mattresses:					
C11.2.3.1	Galvanized gabion boxes					
(a)	1,0 m wide x 1.0m x 2,0 m long	m ³	LI	190		
C11.2.3.3	Galvanised gabion mattresses					
(a)	6,0 m long x 2,0 m wide x 0,3m thick	m ³	LI	50		
C11.2.4	Geotextile (Kaymat U24 or similar)	m ²	LI	440		
PS 11.2.5	Concrete Class 20/20 in grouted reno mattress	m ³	LI	10		
C11.2 TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE A: ROADWORKS						
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empange						CHAPTER C11.4
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C11.4	ROAD RESTRAINT SYSTEMS					
C11.4.1	Erecting of guardrails at 3,81 m spacing					
C11.4.1.1	Complete galvanised system compliant to SANS 1350:					
	(a) On timber posts (as per drawing SD1101)	m		4 500		
	(d) Extra over C11.4.1.1(a) and C11.4.1.1(b) for excavating holes of posts using labour enhanced methods (soft and intermediate)	m	LI	4 500		
C11.4.1.2	Terminal sections for 3,81 guardrails comprising of:					
	(a) End wings to SANS 1350	No	LI	32		
	(b) Bullnoses to SANS 1350	No	LI	32		
	(d) End treatments where single guardrail sections are specified (as per drawing SD 1102)	No	LI	2		
C11.4.4	Extra over for horizontally curved guard rails					
C11.4.4.1	Extra over C11.4.1 and C11.4.11 for horizontally curved guard rails factory bent to a radius of less than 45 m	m		80		
C11.4.5	Additional guardrail posts for 3,81 m systems:					
C11.4.5.1	Timber	No	LI	10		
C11.4.6.2	Plastic plates	No	LI	2 000		
C11.4	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS						
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region						CHAPTER C11.5
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT
C11.5	FENCING					
	FENCING AS PER SD1202/A					
C11.5.1	Supply and erect new fencing material for new fences and for supplementing material in existing fences which are being repaired or removed:					
C11.5.1.1	Zinc-coated barbed wire (SANS 675)					
	(a) High-tensile-grade, single-strand 3,15mm x 2,50mm oval-shaped wire	km	LI	54		
C11.5.1.2	Zinc-coated smooth wire (SANS 675)					
	(a) 4,0mm dia,mild steel straining wire, Grade C galvanized for cross bracing	km	LI	1		
C11.5.1.7	Standards					
	(a) 3,30m CCA H4 treated timber 75mm - 100mm diameter	No	LI	650		
C11.5.1.8	Droppers					
	(a) 1,10m CCA H3 treated timber 25mm - 50mm diameter	No	LI	2 000		
C11.5.1.9	Straining posts, stays and anchors:					
	(a) vertical					
	i) Timber straining posts (100mm to 125mm diameter)	No	LI	55		
C11.5.2	New gates					
	(a) Single leaf					
	i) 4m 'w' pattern	No		5		
	ii) 5m 'w' pattern	No		5		
C11.5.6	Ringbolts for anchoring fencing to structures	No	LI	24		
C11.5.7	Drilling and blasting holes for posts and anchors	No		100		
C11.5 / C1.6.1.3	Clearing for new fence lines (over a width of 2,0 m)	km	LI	9		
C11.5	TOTAL CARRIED FORWARD TO SUMMARY					

SCHEDULE A: ROADWORKS							CHAPTER
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region							
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT	
C11.6	ROAD SIGNS						
C11.6.1	Road signboards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class I retro-reflective material, where the sign board is constructed from:						
C11.6.1.3	Prepainted galvanised steel plate (Chromadek or equivalent)						
	(b) Area exceeding 0,5 m2 but not 2,0 m ²	m ²		100			
C11.6.3	Road sign supports (overhead road sign structures excluded):						
C11.6.3.2	Timber (125mm diameter creosoted)	m	LI	450			
C11.6.4	Kilometre markers						
C11.6.4.1	Kilometre markers on posts (as per SD 1002/C and SD 1003/B)	No	LI	7			
C11.6.5	Excavation and backfilling for road sign supports (not applicable to kilometre posts)						
C11.6.5.1	Excavating soft material and backfilling	m ³		40			
C11.6.5.2	Excavating soft or intermediate material and backfilling using labour enhanced construction methods	m ³	LI	50			
C11.6.5.3	Extra over item C11.6.5.1 and 2 for cement-treated soil backfill	m ³		30			
C11.6.5.4	Extra over item C11.6.5.1 for hard material excavation	m ³		12			
PS C11.6.12	Rumble strips (13.2mm aggregate) supplied and installed as per SD 307/A	m ²	LI	400			
C11.6	TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE A: ROADWORKS							CHAPTER C11.7
The Construction of Earthworks, Layerworks and Drainage on Main Road P700 from km68,00 to km75,00 in the Empangeni Region							
ITEM NO	DESCRIPTION	UNIT	LI	QUANTITY	RATE	AMOUNT	
C11.7	ROAD MARKINGS AND ROAD STUDS						
C11.7.2	Retro-reflective road marking:						
C11.7.2.1	White lines broken or unbroken (retro-reflective road-marking paint)						
(a)	100 mm wide	km	LI	12			
(b)	300 mm wide	km	LI	0.20			
C11.7.2.2	Yellow lines broken or unbroken (retro-reflective road-marking paint)						
(a)	100 mm wide	km	LI	16			
C11.7.2.4	White lettering and symbols (retro-reflective road-marking paint)	m ²	LI	80			
C11.7.2.7	Transverse lines, painted island and arrestor bed markings (any colour) (retro-reflective road-marking paint)	m ²	LI	200			
C11.7.5	Variations in rate of application:						
C11.7.5.1	White paint	l		100			
C11.7.5.2	Yellow paint	l		100			
C11.7.7	Road studs						
C11.7.7.1	Permanent road studs compliant to SANS 1442 (type & colours stated)						
(a)	Uni-directional						
i)	Stimsonite or similar	No	LI	300			
(b)	Bi-directional						
i)	Stimsonite or similar	No	LI	800			
C11.7.8	Setting out and premarking the lines (excluding traffic island markings, lettering and symbols)	km	LI	12			
C11.7.9	Re-establishing the painting unit during the defects notification and at other instances on instruction of the Engineer	No		1			
C11.7	TOTAL CARRIED FORWARD TO SUMMARY						